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Date: 25 June 2014

Subject: Final Removal Action Closure Report for Railroad Round House and Red Cove - Plow Shop Pond (AOC 72) – June 2014
Contract Number W912WJ-10-D-0003, Delivery Order 0005

On behalf of the U.S. Army Base Realignment and Closure Office at Devens, Sovereign Consulting Inc. has enclosed the Final Removal Action Closure Report for Railroad Round House and Red Cove - Plow Shop Pond (AOC 72) dated June 2014. Sovereign is pleased to provide the following attachments:

1. Removal Action Completion Report text, tables and figures.
2. CD, including Report text, figures, tables, and appendices.

If you have any questions or comments please contact me at 413-540-0650 or Robert Simeone at 978-796-2205.

Sincerely,



Rachel B. Leary, P.E.
Project Manager

Enclosure: Final Removal Action Closure Report – Railroad Round House and Red Cove, Plow Shop Pond (AOC 72) – June 2014

FINAL

REMOVAL ACTION COMPLETION REPORT

FOR RAILROAD ROUND HOUSE AND RED COVE

PLOW SHOP POND (AOC 72)

FORMER FORT DEVENS ARMY INSTALLATION, DEVENS, MA

JUNE 2014

Prepared for:
US Army Corp of Engineers
New England District
Concord, Massachusetts

Prepared by:
Sovereign Consulting Inc.
Contract No.: W912WJ-10-D-0003
Delivery Order: 0002

SOVEREIGN CONSULTING INC.

NOTICE

The United States Department of Defense, Department of Army, funded wholly or in part the preparation of this document and work described herein under Contract No. W912WJ-10-D-0003 and Delivery Order 0005. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

Removal Action Completion Report
Plow Shop Pond (AOC 70)
Railroad Round House and Red Cove

FINAL

Devens, Massachusetts

June 2014

CERTIFICATION:

I hereby certify that the enclosed Report, shown and marked in this submittal, is that proposed to be incorporated with Contract Number W912WJ-10-D-0003 DO#0002. This Document has been prepared in accordance with USACE Scope of Work and is hereby submitted for Government Approval.

Reviewed By: Rachel G Leary 6/25/2014

Sovereign Project Manager **Date**

Eric D. Sivo 6/25/2014

Sovereign Quality Control Manager **Date**

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ABBREVIATIONS, ACRONYMS, AND SYMBOLS

Alpha	Alpha Analytical Laboratories
AOC	Area of Contamination
AM	Action Memorandum
AMEC	AMEC Earth and Environmental, Inc.
As	Arsenic
ASTM	American Society of Testing and Materials
BCT	Base Closure Team
bgs	Below Ground Surface
BMI	Benthic Macro Invertebrates
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	Contaminant of Concern
CQC	Contractor Quality Control
CQCP	Contractor Quality Control Plan
DQCRs	Daily Quality Control Reports
CY	Cubic Yards
DERP	Defense Environmental Restoration Program
Devens	Former Fort Devens
DFW	Definable Feature of Work
DOD	Department of Defense
DOT	Department of Transportation
DTW	Depth to Water
eBMI	Epibenthic Macro Invertebrates
EE/CA	Engineering Evaluation/Cost Analysis
ERA	Ecological Risk Assessment
E&S	Erosion and Sedimentation
FS	Feasibility Study
GPS	Global Positioning System
HSO	Health and Safety Officer
kg	Kilogram
MA	Massachusetts
MassDEP	Massachusetts Department of Environmental Protection
MassDOT	Massachusetts Department of Transportation
Maxymillian	Maxymillian Technologies, Inc.
MCP	Massachusetts Contingency Plan
mg	Milligram
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NHSEP	Natural Heritage and Endangered Species Program
Normandeau	Normandeau Associates, Inc.
NTCRA	Non-Time-Critical Removal Action
PACE	People of Ayer Concerned about the Environment
PCBs	Polychlorinated Biphenyls
QC	Quality Control
QCM	Quality Control Manager
RAB	Restoration Advisory Board
RACR	Removal Action Completion Report

ABBREVIATIONS, ACRONYMS, AND SYMBOLS (cont'd)

RAWP	Removal Action Work Plan
RC&D	RC&D, Inc.
RCRA	Resource Conservation and Recovery Act
RAO	Removal Action Objective
RI	Remedial Investigation
ROD	Record of Decision
RTCs	Response to Comments
RTK	Real Time Kinematic
SHL	Shepley's Hill Landfill
SOP	Standard Operating Procedure
Sovereign	Sovereign Consulting Inc.
SOW	Statement of Work
SSHP	Site Safety and Health Plan
SVOCs	Semivolatile Organic Compounds
SWQS	Surface Water Quality Standards
TEC	Threshold Effects Concentration
TPH	Total Petroleum Hydrocarbons
USCS	Unified Soil Classification System
USACE	United States Army Corp of Engineers
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds
WSP SELLS	WSP SELLS Transportation and Infrastructure

1.0 PROJECT DESCRIPTION

This Removal Action Completion Report (RACR) was prepared by Sovereign Consulting Inc. (Sovereign) to document Non-Time-Critical Removal Action (NTCRA) activities and summarize post-remediation conditions at the Railroad Round House and Red Cove areas of Plow Shop Pond (AOC 72). The actions described in this document were performed by Sovereign under United States Army Corps of Engineers (USACE) Contract W912WJ-10-D-0003 DO#0005.

The NTCRA was performed pursuant to the U.S. Environmental Protection Agency (USEPA) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The site falls under CERCLA because of historical activities of the U.S. Department of Defense (DOD). Under CERCLA, the DOD is given lead agency responsibility for implementing appropriate investigations and removal actions where environmental impacts have or may have occurred from historical activities at DOD sites and where such releases may constitute a residual human health threat. Mitigating this site fits within the mission of the Defense Environmental Restoration Program (DERP). An *Engineering Evaluation/Cost Analysis* (EE/CA) was prepared in support of this NTCRA and describes the decision to proceed with the project and the chosen alternatives (Sovereign, 2012b).

The primary project goals were to:

- Mitigate arsenic impacts in sediment in and around Red Cove, in order to be protective of human health and the environment; and,
- Mitigate sediment impacted by maintenance by-product deposits of the former Railroad Roundhouse along the shoreline of Study Area (SA) 71 in order to be protective of human health and the environment.

1.1 Site Background

Devens is located approximately 35 miles northwest of the city of Boston, within the towns of Ayer, Shirley (Middlesex County), Harvard and Lancaster (Worcester County) in the Commonwealth of Massachusetts (see **Figure 1**). The former Fort Devens (Devens) was established in 1917 for military training and logistical support during World War I. Devens became a permanent Base in 1931, and continued service until its Base Realignment and Closure (BRAC) Committee closure in 1996. The 30-acre Plow Shop Pond is located southwest of the business and residential district in Ayer, Massachusetts.

Plow Shop Pond is a man-made pond where water levels are maintained by a concrete dam (Nonacoicus Brook Dam). Plow Shop Pond receives inflow from the Grove Pond to the east through the railroad causeway, and discharges to Nonacoicus Brook. Plow Shop Pond has a maximum depth of about 9 feet but most of the pond is less than 6 feet deep. Depth to bedrock under the pond is approximately 40 to 80 feet (AMEC, March 2010).

Most of the pond is classified by the MassDEP as a "Deep Marsh". The pond is eutrophic, organically enriched, and supports dense growth of aquatic vegetation during summer months.

The pond supports a warm water fish community. A 1992 fisheries study found that 12 species of fish occur in the pond (ABB Environmental Services, 1992). Sunfish, largemouth bass, and chain pickerel were the dominant species based on biomass. Numerically bluegill sunfish was the most common species. The largemouth bass encountered in PSP were often large, with two of the four largemouth bass captured weighing approximately 3.5 kilogram (kg) each. There are no rare species in the pond but adjacent upland is mapped by NHESP for several state listed species and the state and federally listed grasshopper sparrow. The area is posted to prohibit fishing in the pond.

The watershed of Plow Shop Pond above the dam is 16.5 square miles and 53% forested (USGS Streamstats). Emergent vegetation is limited to a narrow band along shoreline. Note that adjacent land is largely developed (Railroad, Shepley's Hill Landfill (SHL), industrial properties), but that there is a wooded buffer along much of the shoreline. Both ponds are in an Area of Critical Environmental Concern (ACEC), due to the proximity to SHL and the protected species habitat in the upland area. Plow Shop Pond is located northeast of SHL, south of Molumco Industrial Park, and west of Grove Pond. The Red Cove area is located in the southwest corner of Plow Shop Pond along the northeast perimeter of SHL. Railroad Round House is located at the southeast corner of Plow Shop Pond and extends south along the northeast boundary of Devens (see **Figure 2**).

1.2 Site History

SHL to the west of Plow Shop Pond was reportedly operating by the early 1940s and evidence from test pits within the landfill suggests earlier usage, possibly as early as the mid-nineteenth century. The landfill was capped in 1993 and contains a variety of waste materials, including incinerator ash, demolition debris, asbestos, sanitary wastes, spent shell casings, glass, and other wastes. Elevated groundwater arsenic concentrations at SHL have subsequently impacted the Red Cove area of Plow Shop Pond which is located hydraulically downgradient of and in close proximity to the northern portion of the landfill. Red Cove is a shallow cove with a water depth of less than three feet. Total sediment thickness in Red Cove is between 0-2 feet.

Railroad Round House, at the southeast corner of Plow Shop Pond, is the former location of a railroad roundhouse operated by the Boston and Maine Railroad from approximately 1900 to 1935. The site consists of a 200- to 300-foot wide strip of land extending south from Plow Shop Pond along the northeast boundary of Devens for approximately 1,100 feet (see **Figure 2**). Historical features included an array of railroad tracks, a coal trestle, ash pit, water tower, and several buildings. The roundhouse was located at the northern end of this strip, immediately adjacent to the southern shore of Plow Shop Pond. The shoreline adjacent to the railroad roundhouse was used as a dumping area for locomotive maintenance by-products. Available maps and aerial photographs indicate that all of the buildings except a brick storeroom and the water tower were removed by 1942.

The Hartnett Tannery was located near the northwest corner of Grove Pond, across the railroad causeway from the northeast corner of Plow Shop Pond, from approximately 1854 to 1961 when the tannery burned. The tannery discharged liquid wastes, including chromium, mercury, and arsenic, to Grove Pond until 1953 when a sewer connection was installed. The chemical signature from the tannery is evident throughout Grove and Plow Shop Ponds.

2.0 NATURE AND EXTENT OF CONTAMINATION

2.1 Contaminants of Concern

Sources of the contaminants that drive potential risk in Plow Shop Pond include historic releases of liquid wastes from the Hartnett Tannery containing chromium, mercury, and arsenic distributed throughout the pond and current and historic releases of arsenic impacted groundwater from beneath SHL to the Red Cove area. Metals and polycyclic aromatic hydrocarbons (PAHs) were present in sediment along the shoreline of Railroad Round House as a result of activities in the former railroad roundhouse. This removal action addressed the localized impacts at Red Cove and Railroad Round House only. The impacts on the ponds from the former tannery will be addressed under the Massachusetts Contingency Plan.

2.1.1 Red Cove

Arsenic concentrations in groundwater at SHL impacted the pond sediments in the Red Cove area of Plow Shop Pond which is located in a cross gradient to down gradient position relative to SHL. Arsenic in Red Cove sediment was concentrated in iron floc near the sediment surface, where groundwater discharge to surface water from beneath SHL occurs. Dissolved arsenic concentrations in Red Cove surface water decreased rapidly with height above the sediment surface, as the water column transitioned to oxidizing conditions and solid arsenic precipitates or adsorbs to iron floc. Iron oxides precipitated as an orange-red floc or sediment in Red Cove as reduced groundwater discharges to oxygenated surface water. Arsenic was absorbed by or co-precipitated with the iron floc near the sediment surface.

The distribution of arsenic in pre-removal action Red Cove sediment was heterogeneous with concentrations varying by a factor of 100 between adjacent samples; ranging from 27 milligram (mg)/kg to 6,940 mg/kg, with an arithmetic mean concentration of 241 mg/kg. Sediment containing the floc exhibited similar physical properties as reference areas of AOC 72. Consideration of the heterogeneous horizontal distribution of arsenic in Red Cove sediment suggested that there is little horizontal transport of contamination. Arsenic (bound to iron floc) appeared to remain concentrated in patchy groundwater discharge zones within the cove and extending about 300 feet to the north, or as far as discharge occurs of landfill-impacted groundwater. The lack of any strong surface water current in the Red Cove area supported the lack of transport in the cove's sediments.

The predominant source of the dissolved arsenic emanating from the landfill appears to be naturally occurring arsenic within aquifer sands and bedrock materials. Arsenic is being mobilized by both naturally-occurring and landfill-induced conditions through the geochemical process of reductive dissolution which releases dissolved arsenic to the aquifer.

2.1.2 Railroad Round House

The former roundhouse was located adjacent to the southern shore of Plow Shop Pond. The shoreline adjacent to the railroad roundhouse was used as a dumping area for locomotive maintenance by-products. As noted in the May 2008 *Final SA 71 Risk Characterization*, the maintenance byproduct deposits "consist predominantly of coal ash, but also contained

fragments of brick, coal, porcelain, and other debris including occasional pieces of a soft, shiny metal that looked as if it had solidified after splashing, molten, on a solid surface" and "the ash-like material is underlain by a dark, fibrous peat." Releases of antimony, copper, lead, zinc, and PAHs associated with the maintenance by-product at Railroad Round House appeared limited to the area of waste deposits extending up to 40 feet from shore.

Lead and zinc are also broadly distributed in sediment of both Grove Pond and Plow Shop Pond, with elevated concentrations above applicable standards in a few areas: Tannery Cove for lead, Railroad Round House for lead and zinc, and Red Cove for lead and zinc. The highest concentrations of PAHs are present at the shoreline of Railroad Round House, with elevated concentrations also detected at the Grove Pond east inlet and Tannery Cove. Antimony was one constituent in shallow sediments adjacent to Railroad Round House that was elevated relative to shallow sediment in Plow Shop Pond as a whole and was also interpreted to be related to waste disposal practices at the former railroad roundhouse (MACTEC, 2008). Consequently, antimony, along with the physical properties of the deposits, was a useful indicator in determining the extent of sediment removal.

Liquid wastes discharged from the former tannery appear to be the source of chromium in sediment of Tannery Cove and throughout Plow Shop Pond. The distribution of mercury in Plow Shop Pond is similar to the distribution of chromium and both are consistent with a source via surface water influent from Grove Pond. Mercury appears to have been used at the tannery as a biocide.

2.2 Conceptual Site Model and Risk Assessment

The Army evaluated whether a significant risk to human health or the environment exists at the SHL with the current remedy in place (AMEC, 2011). The human health risk assessment indicated that potential exposures to Contaminants of Potential Concern (COPCs) (principally arsenic) in surface water and sediment in Plow Shop Pond, including Red Cove, by recreational receptors, are within the USEPA's acceptable cancer risk range and do not exceed a Hazard Index (HI) limit of 1. Furthermore, the results of a qualitative evaluation of the potential for fish ingestion indicate that the estimated risks and hazards associated with arsenic do not exceed the risk management limits, even with conservative exposure assumptions. As a result, no contaminant of concern (COC) is identified in either surface water or sediment in Plow Shop Pond, specifically Red Cove, exceeding risk thresholds based on the quantitative human health risk characterization. Although concentrations of arsenic in surface water exceed the Massachusetts Surface Water Quality Standards (SWQS) protective of fish ingestion, arsenic is not identified as a COC related to SHL's influence to Red Cove in surface water considering the results of the quantitative risk characterization. The arsenic surface water criterion protective of fish ingestion by humans is currently under review by USEPA. The arsenic cancer slope factor may increase pending toxicological review within the next few years, and such an increase may increase the human health risk estimated in the RI beyond USEPA's acceptable cancer risk range.

Conceptual Site Model states that there was little horizontal migration of metals within pond sediments, based on the site investigation data collected. Lower concentrations of arsenic in sediment east of the Red Cove area were consistent with concentrations detected upstream in

Grove Pond, specifically Tannery Cove. Credible sources of arsenic at the former Hartnett Tannery included arsenate pesticides, arsenic sulfide for hair removal, and arsenic as a contaminant in the sulfuric acid used in chrome tanning. Therefore, a portion of the arsenic detected in Plow Shop Pond outside the Red Cove area is likely from historic releases in Grove Pond.

The ecological risk assessment indicated a risk of adverse effects for several receptors. Risk of adverse effects to benthic macro invertebrates/epibenthic macro invertebrates (BMI/eBMI) from exposure to COPCs is indicated not only in Red Cove, but throughout both Plow Shop Pond and Grove Pond. The BMI/eBMI results suggest that a weight of evidence finding on the potential for ecological impacts associated with Red Cove is not possible. This is because all locations associated with this study show significant indications of impact related to either exceedance of threshold effects concentrations (TECs) or diminishment of benthic and/or epibenthic markers. Hence, the BMI/eBMI risks are not distinguishable between the various sampling locations based on the currently available data. These findings are consistent with earlier ecological risk assessments (ERAs) which identified apparent adverse effects on BMI/eBMI, but were not able to identify specific causes. Those ERAs concluded that sediment quality guidelines were exceeded most often for mercury, chromium, and arsenic, which is similar to the current finding (Gannett Fleming 2006). A localized risk of adverse effects to fish from exposure to ammonia at a Red Cove location is suggested by an aquatic bioassay.

As part of the Final SA 71 Sediment Risk Characterization (Mactec, 2008), an ecological exposure and effects assessment was conducted at Railroad Round House. Sediment samples were collected for comparison with sediment benchmarks and toxicity characterization. Maximum detected concentrations were used for the exposure point concentrations (EPCs) and compared to eco-toxicological screening benchmarks selected from various published sources. Two exposure areas, the "ash" area and the "nonash" area were identified based on field observation for risk characterization comparison. Toxicity characterization was based on samples collected from RRRH from twelve locations (71D-05-00X through 71D-05-011X) adjacent to and to the northwest of in October and November 2005. Benthic macroinvertebrate communities were evaluated using total abundance, number of taxa, Shannon Diversity Index, evenness, percent dominance, Hilsenhoff Biotic Index [HBI], and Community Loss Index [CLI].

Total abundance (organisms per sample) in samples collected from RRRH were 592 to 2,128, compared to 200 to 1,191 in reference area samples indicating on average a greater abundance in RRRH samples. The number of different taxa ranged from 14 to 25 in RRRH samples versus 21 to 29 in reference samples. Diversity in RRRH samples ranged from 0.13 to 0.36, below the reference range of 0.21 to 0.74. Evenness values ranged from 0.15 to 0.27 in RRRH samples, compared to the average reference value of 0.29 indicating a slightly less even distribution of species in RRRH samples. Percent dominant family ranged from 52 to 78 percent in RRRH samples relative to 29 to 54 percent in reference locations. HBI values from RRRH ranged between 6.3 and 7.6, compared to the reference area samples which contained an HBI of 5.8 to 7.3, indicating that both the RRRH and the reference area beyond the RRRH are characterized as "fair" to "fairly poor." The CSI did not establish a distinction between ash and non-ash exposure area locations. However, the sediment toxicity and chemistry data were sufficient for EPA to derive a risk-based preliminary remedial goal (PRG) for antimony."

Benthic indices demonstrated that benthic impacts ranged from low to high and could be attributable to low oxygen, chemicals, or a combination of both. Based on the sediment risk characterization, it was concluded that a noticeable difference between ash and nonash study areas was not identified, and ecological impacts at the outer boundary of the nonash samples imply that observed impacts are possibly not do solely to contaminants originating from RRRH. No contaminants of potential concern explained variability of benthic community indices with any statistical significance.

3.0 OBJECTIVES AND SCOPE

The primary project goals as established in the EE/CA were to mitigate arsenic impacts in sediment in and around Red Cove and to mitigate sediment impacted by maintenance by-product deposits of the former Railroad Roundhouse along the shoreline of Study Area 71 in order to be protective of human health and the environment. The Removal Actions in each area are discussed separately in the sections below.

3.1 Project Scope and Objectives- Red Cove

3.1.1 Removal Action Objective – Red Cove

The Removal Action Objective (RAO) for Red Cove was to:

- Mitigate arsenic-impacted sediment in Red Cove area of AOC 72 to reduce risk to environmental receptors consistent with local conditions in Plow Shop Pond.

In the fall of 2012, an 850-foot long hydraulic barrier wall was installed to the top of bedrock on the eastern boundary of SHL to divert groundwater flow north and away from Plow Shop Pond, under a separate NTCRA. Its purpose is to mitigate the ongoing arsenic flux from SHL to the Red Cove portion of Plow Shop Pond. The implementation of the barrier wall and the removal action for AOC 72 will complete the remedial action objective targeted for the pond. Therefore the long-term monitoring of the success of the removal action of Red Cove will be incorporated into the SHL Long-term Monitoring and Maintenance Plan (LTMMP).

3.1.2 Removal Action Scope - Red Cove

The removal action for Red Cove scope of work included the excavation and disposal of arsenic impacted sediment from pre-delineated areas. The water level of Plow Shop Pond was to be lowered by approximately 4 feet below the existing mean water level in order to excavate a 12-inch deep layer of sediment throughout the selected area with various types of excavation equipment. The extent of the proposed removal action in Red Cove is presented on **Figure 2**. Means and methods for implementation are further discussed in **Section 4.4**.

The extent of the proposed removal action was determined based on a multiple lines of evidence approach, primarily on the spatial extent of arsenic laden iron floc attributed to groundwater from SHL discharging to the pond bottom, as determined in the RI for AOC 72 (AMEC, 2010). The extent of the proposed removal action was presented and approved as part of the Final EE/CA for AOC 72 (Sovereign, 2012b).

The intent of the removal action was to reduce concentrations within the removal action area to meet or be below the pond-wide background mean concentration. The established arithmetic mean concentration of background levels of arsenic in Plow Shop Pond sediment was calculated to be 241 milligrams per kilogram (mg/kg) (AMEC, 2010). Results were also generated using USEPA's ProUCL software which calculated a 95% upper confidence limit (UCL) for the mean of 270 mg/kg. Based on this PRG an estimated 3,000 cubic yards (cy) [80,000 square feet (sf) by 12-inches deep] was to be removed from Red Cove. The details of confirmation sampling are discussed in **Section 4.5**.

Post-excavation samples were collected and analyzed for arsenic as five-point composites in the confirmation sampling grid across the Red Cove removal action area (**Figure 3**) and in accordance with the Field Sampling Plan (FSP) provided as an appendix to the RAWP. If the post-excavation 95% UCL value for the removal action area was above 270 mg/kg, additional excavation in higher concentration areas were conducted and these areas re-sampled until the 95% UCL of the post-excavation samples was below that of the background concentration.

Following removal, sediments were stockpiled on the shoreline to dewater and amended, as necessary, with QuickLime©, a pulverized lime compound, to aid in the drying and sufficiently solidify the excavated sediments for shipment off-site. Following sufficient drying and solidification, and waste characterization, the sediment was disposed of off-site according to the appropriate regulations.

Design details are presented in **Section 3.3** and the execution of the removal action is discussed in **Section 4.0**.

3.2 Project Scope and Objectives – Railroad Round House

A Draft Final RAWP (Sovereign, 2012) was submitted to the regulatory agencies in July, 2012. This initial RAWP described the implementation of the removal action at Railroad Round House to be completed in the "dry", through installation of 20-foot long steel sheet piling to isolate the shoreline removal action area. This isolated area was to then be dewatered and the impacted sediments excavated in the "dry". The installation of these sheet piles was unsuccessful due to a lack of structurally stable material for the sheets to tie into below the pond bottom. The installed sheets would not have been stable enough to hold back five feet of water in the pond. Since the originally approved means and methods for the removal action were not implementable a Revised RAWP was submitted in 2013 that included alternative means and methods including the lowering of the water level of Plow Shop Pond. The revised approach is described below.

3.2.1 Removal Action Objective – Railroad Round House

The RAO for Railroad Round House was to:

- Mitigate maintenance byproduct-impacted ash-sediment layer along the Railroad Round House shoreline in AOC 72 to reduce risk to environmental receptors.

3.2.2 Removal Action Scope - Railroad Round House

The removal action for Railroad Round House included the excavation and off-site disposal of sediments from previously delineated impacted areas. The water level of Plow Shop Pond was reduced by approximately 4 feet below the existing mean water level in order to remove an approximately 6 to 36-inch deep layer of sediments impacted by railroad maintenance sludge deposits throughout the selected area with a long stick type excavator from shore. The extent of the proposed removal action along the shoreline of Railroad Round House is presented on **Figure 4**. Means and methods for implementation are further discussed in **Section 4.4**.

The extent of the removal action for Railroad Round House was determined by the location of all visible maintenance byproduct deposits, which appeared as a coal-ash-like material in Plow Shop Pond along the Railroad Round House shoreline. The deposits formed an apron of material that extends out into Plow Shop Pond an estimated 10 to 40 feet. The maximum thickness of the deposits was expected to be 3 feet adjacent to the shoreline, tapering to a few inches away from the shoreline (MACTEC, 2008). In addition to this visual determination of extent, antimony was used as an indicator along with the physical properties of sediment in determining the extent of sediment removal in Railroad Round House. A risk-based preliminary remedial goal (PRG) for antimony of 4.6 mg/kg was used in conjunction with a visible inspection to determine the bounds of the excavation (USEPA, 2011). The impacted area for the railroad roundhouse was originally estimated to be 8,000 sf by 6 to 36-inches deep.

Composite confirmatory sediment samples were collected for off-site laboratory analysis for antimony to determine if PRGs were met. These samples were collected as five-point composites as presented in **Figure 5**, to demonstrate that antimony concentrations in sediment above the established PRG for antimony do not remain in the removal action area. Additional excavation in higher concentration areas was conducted and these areas re-sampled until the average of the post-excavation samples was below the PRG.

Following removal, sediments were to be stockpiled on the shoreline to dewater and amended, as necessary, with QuickLime to aid in the drying and sufficiently solidify the excavated sediments for shipment off-site. Following sufficient drying and solidification, the sediment was scheduled to be disposed of off-site according to the appropriate regulations. Additional detail regarding waste characterization and confirmation sampling is discussed in **Section 4.5**.

3.3 Removal Action Design

The purpose of the project design was to describe the implementation of the removal actions in four key areas:

- local and state resource agency coordination
- removal action design and restoration plan
- management of removal action waste
- verification sampling and closure documentation

3.3.1 Local and State Agency Coordination

The site is a freshwater wetland and located in a regulated area, therefore all proposed work was completed in coordination with the Ayer Conservation Commission, Devens Enterprise Commission and the Massachusetts Natural Heritage and Endangered Species Program (MANHESP). All work, plans and construction practices met the substantive requirements of the following:

- The Wetlands Protection Act (310 CMR 10.000)
- Clean Water Act (40 CFR Section 401, 402, 404)
- Massachusetts Endangered Species Act (MESA).

Because upland areas in excess of one acre were disturbed, the project erosion/sedimentation control plan was designed to meet the substantive requirements of the NPDES Stormwater General Permit and the Wetland Protection Act. Best Management Practices (BMPs) were presented in the RAWP and implemented on site to control potential run-off and erosion from all work areas.

The project plans have been revised with MANHESP and will continue to be coordinated as the removal action progresses. The attached letter (**Appendix A**) from the agency indicates that the upland area of the project is a habitat for a few species but proposed project will not result in a prohibited "take" of the state-listed species. The project will comply with the recommended use of warm season grasses during the restoration phase of the work in the upland. Project and restoration monitoring will also be completed as requested and described in **Section 4.7**.

3.3.2 Removal Action Design

The design elements described below were applied to removal actions at both the Red Cove and along the shoreline of Railroad Round House areas of Plow Shop Pond. Remedial Action Alternatives were evaluated under the AOC 72 Engineering Evaluation/Cost Analysis (EE/CA, (Sovereign, March 2012) where it was determined that removal of the impacted sediments in the "dry" was the most cost-effective and technically feasible option to pursue. The means and methods of the removal action were re-evaluated following the summer/fall 2012 field work attempted at Railroad Round House. Due to the fact that sheet pile was not able to provide a water barrier for the removal of impacted sediments, lowering the pond level was determined to be the best method of accessing the pond sediments in the "dry".

Removal action activities in the Red Cove area of Plow Shop Pond required the excavation of approximately 3,000 yd^3 of sediment. The surface area that was directly disturbed encompasses 80,000 sf down to a depth of 12-inches below ground surface (bgs). Removal action activities along the shoreline of Railroad Round House required the excavation of approximately 900 yd^3 of sediment from Plow Shop Pond. The surface area that was directly disturbed encompasses 8,000 sf down to a depth of 6- to 36-inches bgs.

Removal action activities are designed to be of short duration (approximately 8-10 weeks per area), to minimize any temporary loss of habitat in this area and construction activities could cause temporary indirect impacts. To minimize the duration of removal activities, efforts were

made to perform work at Railroad Roundhouse and Red Coves concurrently to the extent practical. These issues were addressed in the remedial design to minimize indirect impacts and restore the areas of direct impacts. A bathymetric survey (**Figure 6**) was completed in December of 2012 to facilitate that design of the dewatering scheme and to provide data by which to assess potential impacts on the pond's aquatic population.

The work area was dewatered 4' below normal pond water levels prior to sediment excavation (**Figure 7**). To maintain a suitable water level and environment for the ponds eco-system within Grove Pond, a dam of sandbags was built to isolate Grove Pond from Plow Shop Pond. The sandbags were placed to create a low flow weir, to allow controlled overflow from one pond to another prior to dewatering activities. Because the Nonacoicus Dam is concrete, the pond could not be drained by gravity and was therefore dewatered via pumping. Pond water was pumped over the dam at a rate of approximately 12 inches per day to lower the pond to the desired water level. This rate was maintained to minimize any potential flooding impacts to Nonacoicus Brook and per recommendations in The Practical Guide to Lake Management in Massachusetts (Wagner, 2004) guidance documents.

The wetland areas around the pond was delineated and documented prior to commencing invasive work in the pond. It was anticipated that there would be short-term impacts to the pond's shoreline during the removal action from construction of the access roads that were built to transport the excavated material to shore for solidification and offsite for disposal. There were also expected short-term impacts to the pond and bordering wetland associated with the drawdown of the pond's water level. **Section 4.3** discusses the details of the Site Preparation activities that include erosion control measures and monitoring. All the means and methods of the preparation and excavation activities were designed to minimize the impacts of the wetlands. **Section 4.7** discusses the monitoring and restoration of the wetland and upland areas.

The pond populations have been previously inventoried by ABB Environmental Services in 1992. Per conversations with State fish and wildlife personnel, there are currently no critical aquatic species in the Plow Shop Pond. The pond species populations would be preserved in Grove Pond during the draw down period, which would aid in the repopulation of Plow Shop Pond after the completion of removal activities, if necessary.

Excavated sediments will be staged along the pond shoreline and allowed to decant back into the pond via gravity before a dewatering agent is added. Some sediment may be staged in an upland stock pile area (**Figures 8**).

This design description focuses on the following key elements were presented in the RAWP:

- Site Safety and Health Plan (SSHP)
- Site Controls
- Dust/Odor Control
- Pre-construction Activities
- Site Preparation
- Excavation and Staging
- Transportation and Disposal

- Restoration and Monitoring

4.0 SEDIMENT REMEDIATION

The following is a description of the major elements associated with the removal actions at Red Cove and Railroad Round House. These activities were completed by Sovereign between July 2012 and December 2013. For the implementation of this effort Sovereign subcontracted the following firms:

- *Construction Contractors*:
  - Maxymillian Technologies of Waltham, Massachusetts, completed 2012 sheet pile installation trial; and
  - RC&D, Inc., of Pawtucket, RI, was responsible for the excavation, stabilization and disposal of the pond sediments from both areas in 2013.

- *Consultants:*
  - Normandeau Associates, Inc., of Bedford, NH was responsible for the ecological monitoring of Plow Shop Pond in conjunction with Sovereign personnel; and
  - WSP Sells of Nashua New Hampshire completed all site survey tasks.

4.1 Wetland Survey

Between 16 and 23 May 2012 for the Railroad Round House Area and again in June 2013, between 13th and 19th for the Red Cove and other impacted shorelines areas of Plow Shop Pond, Sovereign performed a wetland delineation that included routine assessments of vegetation, hydrology, and soil conditions along proposed removal areas and access points to work areas. Wetland delineation procedures followed the "routine method" outlined in the Corps 1987 Wetlands Delineation Manual, as modified by U.S. Army Corps of Engineers *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (2012)*. The visual survey and foot traverse of the site during May 2012 and June 2013 indicated that the work zones and a majority of the staging areas were located within wetland and wetland transition/buffer areas, as summarized in the Wetland Delineation Report for Plow Shop Pond (**Appendix B**). Therefore, all proposed work was completed in coordination with the Ayer Conservation Commission, Devens Enterprise and the MANHESP (**Appendix A**).

4.2 Site Preparation

The following site preparation activities were completed prior to commencing invasive work at Plow Shop Pond and are described in the subsections below.

4.2.1 Upland Access Roads

Temporary construction roads comprised of crushed stone, and/or construction mats, or improved corduroy that rests on the ground surface were completed throughout the upland areas as necessary to access and transport impacted sediments. Access roads were constructed to be roadworthy for large track-mounted equipment in and along the circumference of the area

to be excavated in Railroad Round House and Red Cove (**Figure 8**). In addition, existing roads over portions of Shepley's Hill Landfill, which are capable of supporting the heavy equipment, were used for large dump trucks to transport excavated material on and off-site. Clean-fill from on site stockpiles was used for additional road base when needed. Because sediments in Red Cove are as much as 300' from the closest shore line, a temporary access way was constructed into the pond to allow for the heavy equipment to reach the required area that are not accessible from the shore.

The temporary access road to the Railroad Round House work area was completed in the summers of 2012/2013 and is also presented in **Figure 8**. At the entrance to the haul roads from the loading areas, a decontamination and/or tire rub area will be installed for trucks and equipment. Inspection and decontamination (if necessary) will be performed on all vehicles exiting the site.

4.2.2 Initial Sheet Piling Option

In July 2012, Sovereign and its contractor Maxymillian, initiated the removal action described in the Draft Final RAWP (Sovereign, July 2012) for the Railroad Round House sediments slated for removal from Plow Shop Pond. The approach included driving 20-foot long z-channel sheet pile along the extent of the removal action area, to isolate the area for dewatering. This isolated area would then to be dewatered and the impacted sediments excavated in the dry with a long reach excavator situated near the shoreline and the excavated material managed along the shoreline for subsequent off-site disposal. After driving the first 85 linear feet of sheet pile it became evident that the sheets did not encounter sufficiently stable material to tie into below the pond bottom, even at a driven depth of approximately 24 feet below the surface of the pond. Therefore, the activities were terminated since the sheet pile design was competed based on an incorrect engineering analysis that loose fine sand would be sufficient to hold back 5 feet of water, which was not the case based on the subsurface conditions that were encountered at the site.

Subsequently, the Revised RAWP (**Sovereign, 2013**) presented the revised means and methods presented in Section 3.2 and also summarized below.

4.2.3 Lowering the Water Level of Plow Shop Pond

The pond level was lowered approximately 4 feet below current water levels, to accommodate the removal action in both targeted areas of the pond (see **Figure 3**) in order to achieve remedial action objective goals.

Grove Pond was hydraulically isolated from Plow Shop Pond utilizing one-ton supersacks of clean sand and smaller 50 pound sand bags. The sand bags were stacked in two tiers to minimize erosion and to allow for overflow to maintain a consistent pond water level.

Water from the Plow Shop Pond was pumped over the Nonacoicus Brook dam, which controls the outfall from Plow Shop Pond to Nonacoicus Brook. Two, twelve inch diesel pumps were placed in the waterward side of the dam to dewater the pond at a rate of 5,000 to 10,000 gpm. To minimize the extraction of sediments from the pond, the suction point was located within an

extraction basin, constructed with a 6' diameter leaching pit and crushed stone. On the brook side of the dam a velocity dissipation structure or "splash pad" was constructed similarly to reduce the energy and velocity of the water pumped and therefore minimizing the potential for erosion, temporary flooding and prevent scour existing confluence of the brook. The pond's level was lowered at a rate of approximately 12" per day in accordance with recommendations in Massachusetts guidance documents (Wagner, 2004).

Surface water overflowing the sand bag barrier at Grove Pond and from storm events continuously entered Plow Shop Pond throughout the removal action. Periodic dewatering of surface water and groundwater upflow into the pond was pumped on an as-needed basis, utilizing one 4" diesel pump in the same dewatering structure. This periodic pumping at lower flows provided continuous water to Nonacoicus Brook, to the extent practical. Monitoring of the Brook is discussed in Section 4.3.

4.2.4 Erosion Control

Specific erosion control practices were followed to minimize the potential for sediment to enter other areas of Plow Shop Pond and Nonacoicus Brook as detailed in the Soil Erosion and Sedimentation Control Plan, Appendix E of the Revised RAWP (Sovereign, 2013). Standard erosion control methods using a staked silt fence and hay bales were installed to protect against runoff into the adjacent surface water, drainage swales and wetlands. Within the excavation areas, siltation prevention measures were implemented in the dewatered pond to prevent the targeted sediments from moving into other parts of the pond. Straw waddles or similar silt barriers were placed at the outer limits of the excavation area to minimize sedimentation in the rest of the exposed pond. See **Figure 8** for placement of Erosion Control Measures.

4.3 Ecological Monitoring

Prior to dewatering the pond, baseline surface water samples were collected under various weather conditions at three locations in Nonacoicus Brook west of the dam and one location within Plow Shop Pond north of the Grove Pond culvert. Refer to **Figure 9** for the locations of surface water monitoring points. These four (4) points were subsequently monitored for field parameters (dissolved oxygen, temperature, and turbidity) and sampled for laboratory analysis of total arsenic on a daily basis during any removal action activities where dewatering was ongoing. When dewatering of the pond was conducted intermittently the brook conditions were monitored for water level, temperature and aquatic activity. These notes are located in Appendix C.

After the first month of water quality sampling, monitoring demonstrated that there were no adverse results; therefore, sampling and monitoring frequency was reduced to twice weekly. At no point during removal action activities did total arsenic in surface water sampled exceed 150 ug/l (Massachusetts Surface Water Quality Standard) limit. In addition, water quality parameters showed no statistically significant increase (greater than one standard deviation from baseline) in turbidity. Refer to **Table 1** for a summary of surface water quality data and a summary of field parameter data.

A daily fish survey within Plow Shop Pond was performed by fish biologists from Normandeau and ecologists from Sovereign, during removal action activities where dewatering occurred. After the first month of daily surveys where no deceased fish were found, the survey frequency was reduced to twice weekly. During all removal action activities, the water level of the pond was maintained at a level high enough to support the existing fish population of Plow Shop Pond. There was no fish mortality associated with the decreased pond level, but 2 fish deaths occurred as a result of the fish getting into the pump intake.

For this removal action, no ecological sampling was performed during the construction activities. Bordering wetland conditions were monitored before, during, and after the pond drawdown to ensure no long term affects to the pond's wetland community. Ecological inspection notes are included on the Surface Water Daily Monitoring forms and are included in **Appendix C**. No state-listed species were observed during the removal activities.

4.4 Excavation and Solidification

The excavation areas for Red Cove and Railroad Round were established prior to commencing invasive work. WSP Sells of Nashua, New Hampshire surveyed the water line and established survey control of each area. The long reach excavator was equipped with a 3D GPS+ system and Real Time Kinematic (RTK) communication to its ground base that tracked all sediment removal locations and was utilized to establish confirmation sampling locations.

Both of the excavation areas were secured during the removal actions to prevent people from accessing the pond. Temporary fencing (snow fencing) was utilized around areas of the pond that are not owned by the Army to inform and discourage trespassers from entering the pond.

4.4.1 Red Cove Excavation and Solidification

Excavation activities at Red Cove began on September 11, 2013 and continued intermittently in the manner described below until October 2, 2013. In accordance with the removal action design, the top 12-inches of sediment from the delineated 80,000 sf area of Red Cove was excavated using a variety of heavy equipment. Wide-base track mounted machinery was utilized for the vast majority of the removal of impacted sediment. Heavy equipment including excavators/amphibious excavators, front-end loaders, cranes, and/or bulldozers accessed the impacted area from the shore via temporary access ways (**Figure 8**). Final excavation sediment contours are shown on **Figure 10**.

Temporary access ways were constructed from shore to provide a means of entry for wide-based track mounted excavators and dump trucks. One temporary access way was constructed across the middle of Red Cove to allow the long reach excavator additional access to outer pond sediments and to provide a launch area for an amphibious excavator and barge, as the sediments proved to be too soft to allow for the construction of additional accessways in an economical manner. Therefore, the excavation of impacted sediments in the north/northwest areas of Red Cove was completed using an amphibious excavator and a floating barge. Sediments excavated by the amphibious machine were placed into the floating barge and conveyed to the temporary access way, where it was unloaded by the long reach excavator into temporary dewatering basins, constructed of native fill. A solidification agent (QuickLime©,

calcium oxide) was mixed in at a concentration of approximately 20% by volume with a track-mounted excavator within the temporary dewatering basins. The QuickLime was mixed in utilizing the excavator bucket and then sat over night to allow to react and solidify. Solidified sediments were loaded in to tri-axel dump trucks on the access ways to transport impacted material to the upland staging areas. These sediments were then stockpiled and covered with poly-sheeting and/or tarps until they were transported off-site for disposal.

4.4.2 Railroad Round House Excavation and Solidification

Excavation activities at Railroad Round House began on August 26, 2013 and continued intermittently in the manner described above until September 16, 2013 and again on October 11, 2013. It was anticipated that the removal of an approximately 6- to 36-inch deep layer of sediment from Railroad Round House using heavy equipment over an estimated 8,000 sf area was required (**Figure 5**) and an estimated 900 yd^3 of material would be removed from this area. Based on the extent of impact, it was necessary to remove an additional 200 yd^3, resulting in a total sediment removal of approximately 1,100 yd^3 from the Railroad Round House area to achieve the clean-up goal of removing all visual evidence of railroad maintenance by-product. The details of the confirmation sampling and re-digging are described in **Section 4.5.** Final excavation sediment contours are shown on **Figure 11**.

Sediments from Railroad Round House were to be excavated from the shore with long reach equipment and then stacked on the edge of the removal action area to allow material to dewater by gravity in temporary dewatering basins constructed from native fill along the shoreline of Railroad Round House. Once the excavated sediments were allowed to dewater in the temporary dewatering basins, QuickLime©, was mechanically mixed into the sediments with an excavator. Following the completion of the mechanical dewatering, the sediments were relocated to upland staging/loading areas established outside the excavation area pending off-site disposal.

Staging and dewatering activities relating to Railroad Round House sediments began concurrently with the excavation activities on August 26, 2013 and continued intermittently through October 2, 2013.

4.4.3 Valve Vault Abandonment

During the shoreline excavation of Railroad Round House, a buried pre-cast concrete vault was discovered just below the ground surface on the eastern side of the excavation area (**Figure 11**). The vault was opened and sediment samples were taken from inside and outside of the vault for Total Petroleum Hydrocarbons (TPH). Sediments sampled from within the vault contained TPH concentrations of 5,670 ppm and TPH in soils outside the vault were detected at only 159 ppm. The debris and sediment found in the vaults interior was removed by a vacuum truck and hand cleaned with a shovel. The interior of the vault was inspected and all influent and effluent pipe openings were sealed with hydraulic cement. During the inspection of the vault, it was discovered that the vault's bottom was perforated. Following the cleaning, the concrete top was broken up and the vault back filled with clean gravel in accordance with the USACE tank abandonment requirements.

Detections of TPH outside the vault were below S-1/GW-1 thresholds established by 301 CMR 40.0000, therefore no removal or disposal of this material was necessary.

4.5 Confirmation Sampling

4.5.1 Red Cove

Following the removal of 12 inches of impacted sediment from the Red Cove area, confirmation sampling was completed to assess if clean-up goals had been met. A 50 foot by 50 foot grid pattern was established over the Red Cove excavation area using the GPS system equipped on the long-reach excavator or using a handheld Trimble Geo XT or equivalent GPS unit with sub-meter accuracy. The area of excavation along with an overlay of the sampling grids was loaded into the GPS unit(s) on the excavator bucket or the handheld GPS unit.

In accordance with the approved Revised RAWP (Sovereign, 2013), post-excavation, five-point composite confirmation sediment samples were collected in accordance with the Field Sampling Plan, from each grid square in 60 cells (**Figure 4**). Samples were submitted for laboratory analysis of arsenic by USEPA Method 3050B/6020A at Alpha Analytical Laboratory of Westborough, Massachusetts. The statistical average of arsenic concentrations from the composite confirmatory samples from all the cells was calculated and compared to the established background 95% Upper Concentration Limit (UCL) of 270 mg/kg arsenic. Because the post-excavation average arsenic concentration was above the established background 95% UCL value, additional excavation in two particular higher concentration areas (Cells 40 and 41 – see **Figure 12a**) was conducted. This re-dig resulted in excavation down to a finish depth of 24" in these cells and collection of additional confirmatory post-excavation sediment samples. Based on the final confirmation sample laboratory results (**Figure 12b**), the post-excavation statistical average for arsenic over all the cells was recalculated at 207.9 mg/kg arsenic which was below the established background 95% UCL value of 270 mg/kg. The summary table of Red Cove data and Pro-UCL calculations are presented in **Tables 2 and 3**. Analytical data is also attached as **Appendix D**.

4.5.2 Railroad Round House

The area of excavation along with a 30 foot by 30 foot overlay of the sampling grids were loaded into the GPS unit on the excavator bucket to provide the operator a real-time depiction of the bucket's spatial location and the ability to determine elevations. The targeted depth of the excavation ranged from 36-inches in the south and tapered off to approximately six (6) inches in the north. These targeted depths were based on observation from sediment cores completed during previous site characterization investigations. All excavated sediments were inspected for visual evidence of the targeted railroad maintenance byproduct deposits and removed as noted below.

During the first sampling round for the northernmost cells in Railroad Round House, 6-12" of sediments were removed from cells 1-9 (see **Figure 13a**). There was no visual evidence of maintenance by-product in the sediments excavated. Each bucket of sediments was inspected prior to deposition in the shore line stockpiles. In the second row of the sampling cells, sediments from cells 10-18 did contain maintenance byproduct deposits, and were removed to

an excavation depth based on visual evidence (or lack of) by inspection of each excavation bucket.

In accordance with the approved Revised RAWP (Sovereign, 2013), five-point composite post excavation confirmation sediment samples were collected from each cell square in 18 cells (Cells 1 through 18 – see **Figure 13b**). Samples were submitted for laboratory analysis of total antimony by USEPA Method 3050B/6020A. Based on the results of the first round laboratory analysis, 10 of the 18 cells remained above the PRG for antimony of 4.6 mg/kg (Cells 01, 03, 04, 05, 06, 07, 11, 13, 14, and 15). In an effort to reduce the total antimony concentrations at these listed cells to the PRG, an additional 12-inches of material was removed, even though there was no evidence of any maintenance by-product deposits in these areas.

This re-dig resulted in excavating down to the peat layer in all locations (Cells 01, 03, 04, 05, 06, 07, 11, 13, 14, and 15,) where additional confirmatory post-excavation sediment samples were collected. Based on laboratory results from final confirmation samples, 4 of these 10 cells remain above the 4.6 mg/kg PRG (Cells 04, 05, 11, and 14 – see **Figure 13c**). Site personnel inspected each bucket load of material from each cell to determine if any maintenance byproduct remained in that cell and there was no material in the cell above the peat layer before determining the removal action was complete in that area, prior to completing the second round of confirmation sampling. This includes perimeter bucket loads at the northern boundary of the removal action area. No visible maintenance by-product deposits remained in these cells. The summary table of Railroad Round House data is presented in **Tables 4**. Analytical data is also attached as **Appendix E**.

In the southernmost Cells (19-24), sediments containing visual evidence of the maintenance by-product were removed to a depth of approximately 3' below pond bottom in most locations. An additional 3' of material was removed from Cell 20, where maintenance deposits were observed deeper. At the depth of 3' below the pond bottom miscellaneous debris (coal ash and brick) or urban fill was encountered. Analytical data for cells 19-22 are above the PRG of 4.6 mg/kg of antimony, ranging from 6.0 -11.0 mg/kg. Test pits and trenches were dug to determine the extent of the debris deposits and it was determined to be approximately 4-6 feet below the current excavation depth and extending along approximately 200 feet of shoreline. The materials encountered in these cells were within the upland shoreline areas that were addressed in the prior SA-71 removal action. As part of the site restoration plan, the shoreline was returned to the pre-removal action topography therefore, the miscellaneous debris was adequately covered with clean fill material.

It is noted that in areas where antimony exceeded the PRG, excavation proceeded vertically down to the peat layer or to the debris layer (along the shoreline) thereby removing all visual evidence of the railroad maintenance by-product. The arithmetic mean of all the cells, post excavation, is below the 4.6 mg/kg antimony limit. Given the confirmation sampling results and site conditions discussed above, no additional excavation was performed.

The confirmation sampling approach and results, as described above were submitted to the BCT in a summary memo in October 2013 (Sovereign, 2013b). The EPA provided comments on the memo and a response was prepared and submitted to the BCT in November 2013 ((Sovereign, 2013c). The conclusion of the summary memo and the response to comments

(RTCs) is that the removal of all visual evidence of the railroad maintenance by-product meets the remedial action objective for the Railroad Round House area.

4.6 Transportation & Disposal

Stockpiled materials removed from Red Cove and Railroad Round House were sampled for waste characterization parameters prescribed by Waste Management, Inc. All waste characterization data is included as **Appendix F**. Based on the results of the waste classification completed, stabilized sediments from Red Cove were disposed of at the Waste Management Turnkey Landfill facility in Rochester, New Hampshire as non-hazardous waste and stabilized sediments from Railroad Round House were disposed of at the Waste Management Fitchburg Landfill facility in Westminster, Massachusetts.

When the dewatered material was released from the staging area, it was loaded into dump trailers utilizing a track-mounted excavator for immediate transportation to the off-site disposal facility by a fully insured and licensed hauler (W.L. French Excavation Corporation (WLF) of North Billerica, Massachusetts). The WLF trucks transporting the material were covered to minimize air borne particulates to the destination facility with all required transportation permits, shipping papers, and approvals. Every truck departing the site was provided a complete and signed Massachusetts Department of Environmental Protection (MassDEP) Material Shipping Record and Log Sheet and a log was maintained to track all shipments that leave the site.

Transportation and Disposal of Red Cove sediments began on November 12, 2013 and continued through November 14, 2013 and again on November 19, 2013 through November 26, 2013, and were completed on December 4, 2013. A total of 141 loads (4,458.69 tons) were transported off-site to the Waste Management Turnkey Landfill as non-hazardous waste.

Transportation and Disposal of Railroad Round House sediments began on December 3, 2013 and continued through December 5, 2013. A total of 43 loads (1,350.59 tons) were transported off-site to the Waste Management Fitchburg Landfill facility as landfill cover.

4.7 Site Restoration and Demobilization

4.7.1 Site Restoration

Site restoration activities began on October 11, 2013. Upland areas disturbed for staging and loading were re-graded to approximate pre-construction elevations, based on on-site topographic data. Any crushed gravel added to the constructed access roads and tire rubs was taken up and the materials were stockpiled for reuse or disposal as appropriate. The top layer of bedding material of the staging areas was scraped off and was disposed of with the pond sediments. Confirmatory samples were collected, as random composite samples for arsenic, in areas outside the pond; 1 per every 2,500 sq. feet of staging area. All the arsenic data collected was below or within range of regional background arsenic concentrations (USACE, 2004). Analytical data and a map of sample locations from the staging areas are also attached as **Appendix G**.

The upland areas of Red Cove and Railroad Round House have been returned to pre-construction conditions, to the extent possible, with the exception of replanting trees. Any steep slopes were stabilized with a naturally degradable jute mat and a water tolerant, erosion control seed mix to stabilize the regraded soils in the buffer zone and along the pond water line. Logs, stumps and rocks have been placed along the shoreline of Red Cove to create a habitat of amphibians and reptiles and small fish in the brook.

The extraction basin within Plow Shop Pond, and the splash pad in the brook downgradient from the Nonacoicus Brook dam have been removed and the areas restored in pre-existing conditions. The temporary dam placed at the discharge of Grove Pond was removed and the area restored once the water level in Plow Shop Pond reached its normal seasonal level on 07 November 2013, seventeen (17) days following the completion of pumping activities.

Following regrading, the disturbed upland areas were reseeded using a warm season grass mix as requested by MANHESP (**Sovereign, 2013)** and used for the barrier wall restoration. The Following seed mix was used in all upland areas that required seeding at an application rate of 15 lbs/acre:

Species/Variety	**% by weight**
Niagara or Kaw Big bluestem	57.3%
Rumsey, Osage, or NE-54 Indiangrass	41.0%
Blue false indigo	0.80%
Lance leaved coreopsis	0.80%
Blackeyed susan	0.10%

4.7.2 Demobilization

Demobilization activities for the removal action were initiated on November 15, 2012. All heavy equipment including excavators, loaders and dozers were removed from site during restoration activities on an as needed basis. Due to an early winter in December 2013, the restoration activities were suspended until the spring thaw.

In the spring on 2014, all final restoration and demobilization tasks were completed. The timber mats were demobilized in March 2014. On 13 May 2014, the restoration of all remaining areas that required final grading, including the staging areas and the landfill access roads were completed.

5.0 WASTE DISPOSAL

5.1 Off-site Disposal of Solidified Sediments

The solidified sediments excavated from Red Cove and Railroad Round House were loaded on 30-yard dump trailers and transported off-site for disposal. Associated quantities transported from each area for off-site disposal, and the respective disposal facilities are presented below:

Summary of Wastes Disposed Off-Site

Work Area	Classification	Quantity	Disposal/Recycling Facility & Location
Red Cove	Non-Hazardous	4,458.7 tons	Turnkey Landfill, Rochester, New Hampshire
Railroad Round House	Non- Hazardous Landfill Cover	1,350.6 tons	Fitchburg State Landfill Westminster, Massachusetts

Copies of weight slips and the Mass DEP Bill of Lading Forms are included in Appendix H.

6.0 PERFORMANCE STANDARDS & QUALITY CONTROL (QC)

In accordance with the quality control standards set forth in the RAWP (Sovereign, 2012a), Sovereign implemented the Contractor Quality Control Plan (CQCP) to provide a programmatic method for assuring that the required levels of quality are consistently achieved for all off-site and on-site project operations, including work completed by Sovereign and its subcontractors and vendors. This plan addressed each component of the Construction Quality Control (CQC) system, including responsibility and authority of project personnel, inspection programs, inspection activities, monitoring tests and observations, submittals procedure, and documentation and reporting requirements.

The CQC system was implemented by using a three-phase process for all project Definable Features of Work (DFWs). A DFW is a task that is separate and distinct from all other tasks and has a specific set of quality control requirements (e.g., construction of working platform). All DFWs were controlled during execution using the three phases of control discussed and presented in the CQCP and underwent a completion inspection at the conclusion of the work associated with the DFW. The DFWs for the removal actions at Plow Shop Pond included the following:

- Red Cove Mobilization and Site Preparation
- Red Cove Removal Action (Dewatering/Excavation, Sampling, Transportation/ Disposal)
- Red Cove Site Restoration and Demobilization
- SA 71 Mobilization and Site Preparation
- SA 71 Removal Action (Dewatering/Excavation, Sampling, Transportation/ Disposal)
- SA 71 Site Restoration and Demobilization

The DFWs were implemented by Sovereign, following the three-phase quality control system: including a Preparatory Phase, an Initial Phase, and a Follow-Up Phase, as described in the CQCP. Representatives of the USACE were on-site to participate in three-phase inspections as well as to conduct inspections of the removal action activities at regular intervals and convey any concerns or discrepancies to the on-site Sovereign management. Separate additional on-site visits were conducted by MassDEP and USEPA to measure progress during the removal action activities.

6.1 General Quality Assurance/Quality Control Procedures

Sample analysis via an off-site laboratory adhered to QA/QC requirements and guidance provided in the MCP, the *Statement of Work* (*SOW*) (USACE, 2011), the Department of Defense (DOD) *Quality Systems Manual for Environmental Laboratories* (Final Version 4.2) (DOD, 2006), and the *Uniform Federal Policy - Quality Assurance Project Plan (UFP-QAPP)* (Sovereign, 2011c). Field QA/QC was achieved via collection of field duplicate and matrix spike/matrix spike duplicate (MS/MSD) samples used by the project chemist to determine precision in percent relative standard deviation and matrix interferences. Quality control samples were also collected in the field, including equipment rinsate blanks, to ensure compliance with decontamination procedures. Quality assurance split samples were not required per the *SOW* (USACE, 2011).

Sovereign maintained daily Contractor's Quality Control Reports (CQCR) for every day of construction activities as required in the specifications. The CQCRs included a daily log of construction documenting the site personnel, the materials received, changes, and the work conducted. The daily DQCRs are presented in **Appendix I**.

6.2 Health and Safety

All removal action field activities were performed in accordance with the requirements of the SSHP (Sovereign, 2011b). Health and safety issues encountered during the implementation of field activities were addressed immediately and recorded in daily QA/QC logs. Daily safety briefings were held prior to the start of work and included all field personnel. Daily safety inspections were conducted on all heavy equipment prior to use. Periodic safety inspections were carried out by the Sovereign Health and Safety Officer.

6.3 Decontamination

Decontamination of equipment was necessary to prevent cross-contamination between sample locations. Equipment was properly decontaminated prior to sample collection, between sampling locations, and following a sampling event. Decontamination procedures were performed in accordance with USEPA Region 1 Decontamination SOP No. 2000 (USEPA, 1994b) as presented in Section 5.6 of the RAWP (Sovereign, 2013).

6.4 Assessment of Data Quality

The *UFP-QAPP* (Sovereign, 2011c) identifies QA/QC policies and procedures for laboratory analysis, instrument calibration, data reduction and reporting, internal quality control, and corrective action. The RAWP (Sovereign, 2013) presents QA/QC procedures implemented during field work and sampling activities. The purpose of the QA/QC procedures is to address specific objectives for analytical accuracy, precision, completeness, representativeness, and comparability.

The project chemist performed a review of groundwater, sediment, and confirmatory soil data collected during the remediation activities for completeness, consistency, and compliance with the project QA requirements. All appropriate data was provided by the laboratories as required for a complete Tier III data validation. A 90% Tier II and 10% Tier I data validation was

performed on all the data. The validation effort was guided by project-specific information presented in the site-specific *UFP-QAPP* (Sovereign, 2011c). The validation results concluded that all required data elements were reported for each sample, and that all analyses were in accordance with requirements. Based on the level of review completed in the validation process, there were no significant findings that impacted data usability for the intended purposes. The data validation reports are included in **Appendix J** along the with the laboratory data packages.

As noted in the DQE, all of the Q qualifiers were removed because the quality control check at the laboratory that caused them is not within the description of Level 2 data validation. So, all of the results were usable. Page 5 of the DQE discusses the removal of the Qs.

6.5 Comparison to Cleanup Goals

Overall, the removal of impacted sediments in the Red Cove and Railroad Round House area within the excavation areas achieved the remedial action objectives. The remedial action objectives for these areas along with a discussion of the qualitative and quantitative data was provided within Sections 4.5.1 and 4.5.2 for the Red Cove and Railroad Round House areas, respectively.

7.0 DEMONSTRATION OF COMPLETION

On 12 December 2013, a final walkthrough and inspection was performed at the Railroad Round House and Red Cove Areas of Plow Shop Pond by members of USACE to determine if site activities were substantially complete. A punch-list of three items were identified that were not able to be completed in 2013, due to the colder temperatures. A final inspection will be completed in the spring 2014. The following issues will identified:

- Removal of drum of decontamination fluids – *Completed 26 December 2013*
- Demobilize timber mats - *Completed March 2014*
- Grade and dress SHL access roads and Red Cove Staging area - *Planned for Spring 2014*

8.0 PROJECT COST SUMMARY

The following table presents the approximate cost associated with the design, excavation, and reporting for the removal actions at Plow Shop Pond.

REMOVAL ACTION COSTS	
Planning and Design Costs:	$316,862
Project Management and Meetings Costs:	$166,182
Mobilization / Demobilization Costs:	$62,225
Site Preparation Costs:	$310,631
Lowering and Maintaining Water Level:	$206,116
Excavation and Solidification of Red Cove:	$621,448
Excavation and Solidification of RRRH:	$185,793
Confirmation Sampling of Red Cove:	$58,359
Confirmation Sampling of RRRH:	$36,076
Transportation & Disposal - Red Cove:	$509,238
Transportation & Disposal - RRRH:	$92,579
Site Restoration Costs:	$74,191
Removal Action Completion Reports Costs:	$38,201
Total Removal Action Costs:	$2,677,901

9.0 COMMUNITY RELATIONS

Prior to the commencement of removal action, the Army prepared an EE/CA (Sovereign, 2012), Action Memorandum (AM) (Sovereign, 2012), and RAWP (Sovereign, 2013) in support of this NTCRA and made these documents available to the Base Closure Team (BCT) for comment. Throughout the removal action, the BCT, including representatives from USEPA, MassDEP, Massachusetts Division of Fisheries and Wildlife, U.S. Fish and Wildlife Service, MassDevelopment, the Devens Restoration Advisory Board (RAB), and the People of Ayer Concerned about the Environment (PACE),), were kept informed of activities at the site through informational correspondence and monthly meetings. In addition, Sovereign

conducted a public information meeting at the site, which included a tour and presentation of the removal action activities being undertaken for all public stakeholders on August 29, 2013.

10.0 REFERENCES

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FIGURES

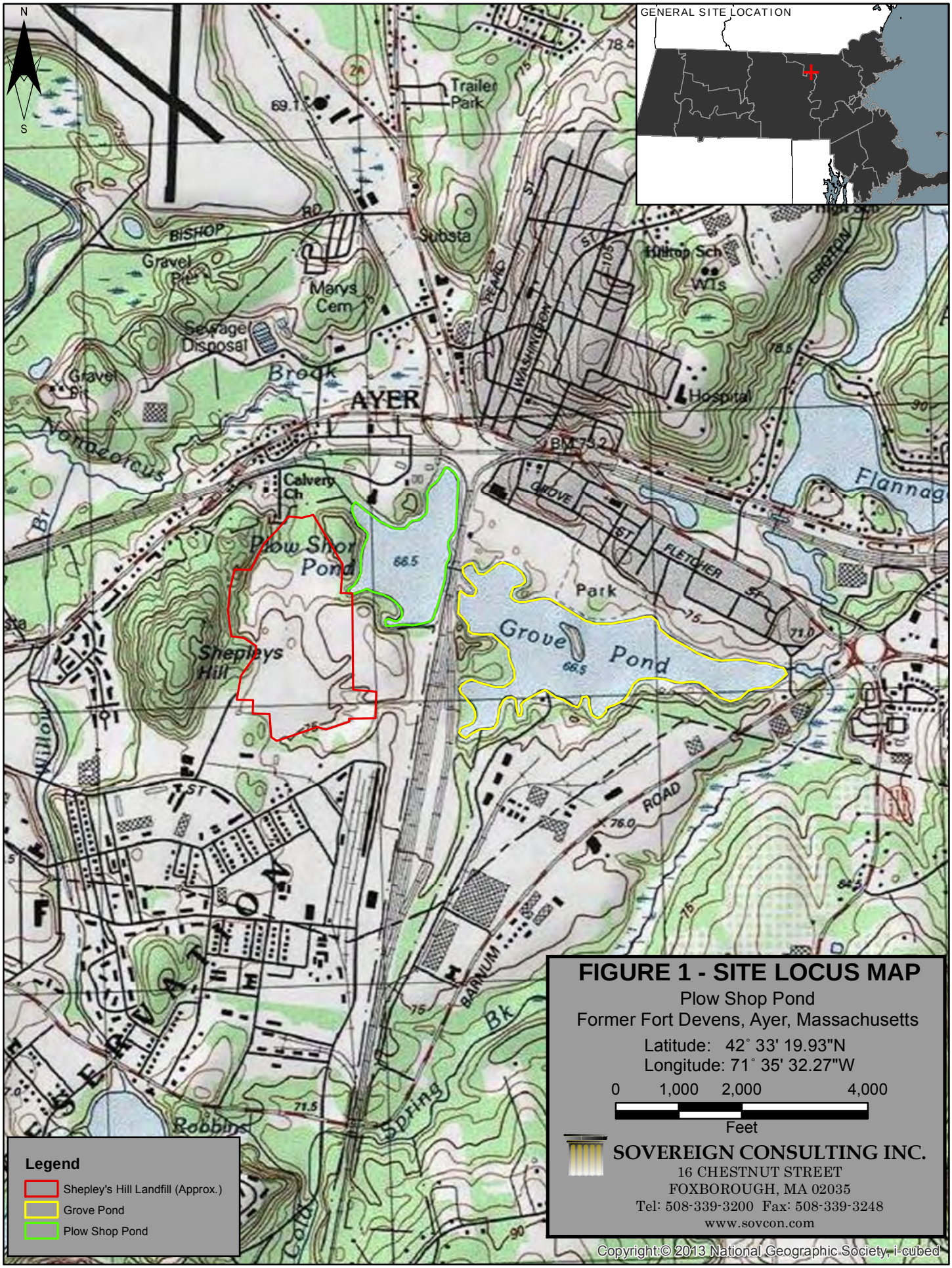

FIGURE 1 - SITE LOCUS MAP

Plow Shop Pond
Former Fort Devens, Ayer, Massachusetts

Latitude: 42˚ 33' 19.93"N
Longitude: 71˚ 35' 32.27"W

0 1,000 2,000 4,000
Feet

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01/09/2014 ROV

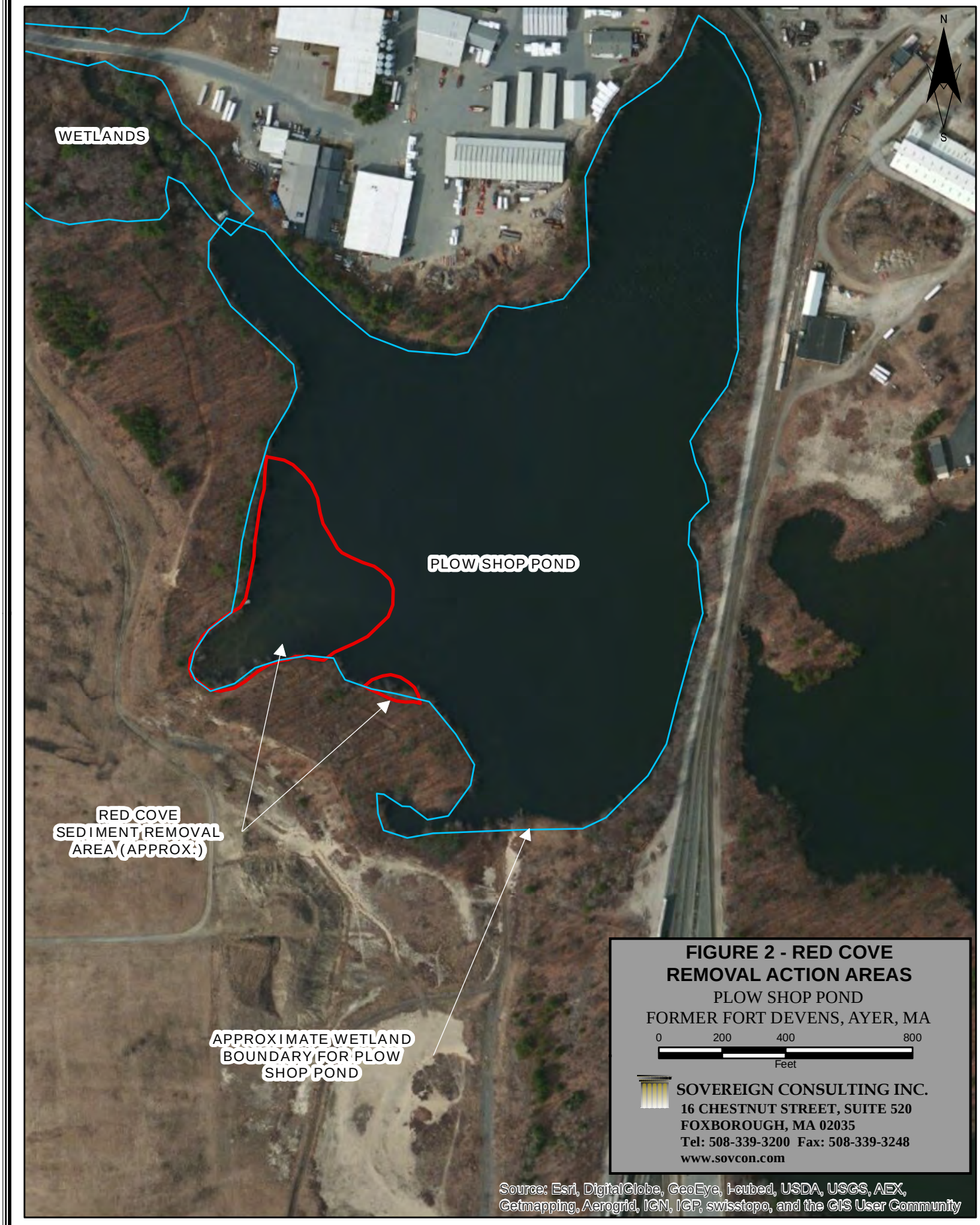

FIGURE 2 - RED COVE REMOVAL ACTION AREAS

PLOW SHOP POND
FORMER FORT DEVENS, AYER, MA

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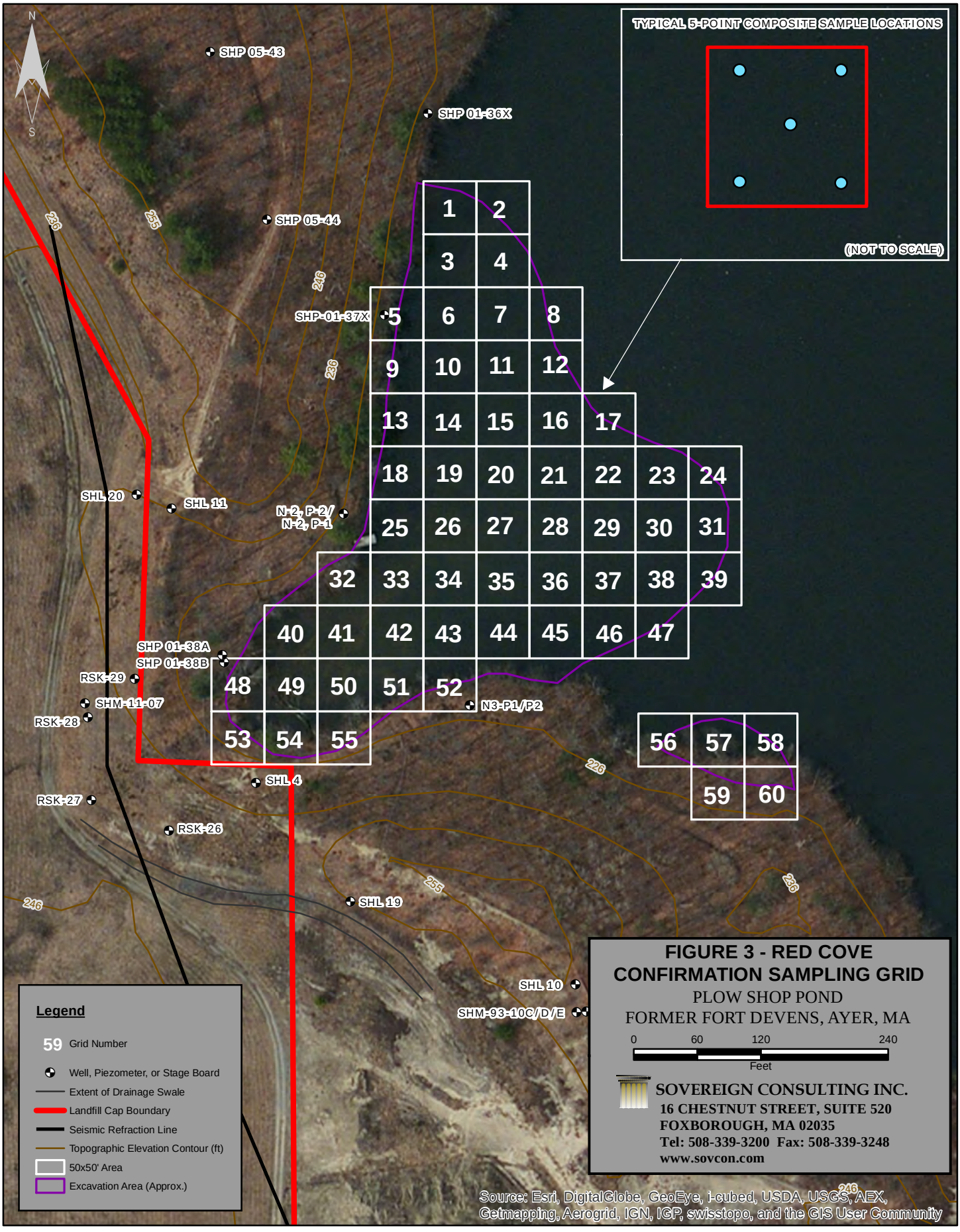
National Wetland Inventory Layer. 2010. US Fish & Wildlife Service.

02/03/2012 ROV
Updated 05/29/2014 ROV



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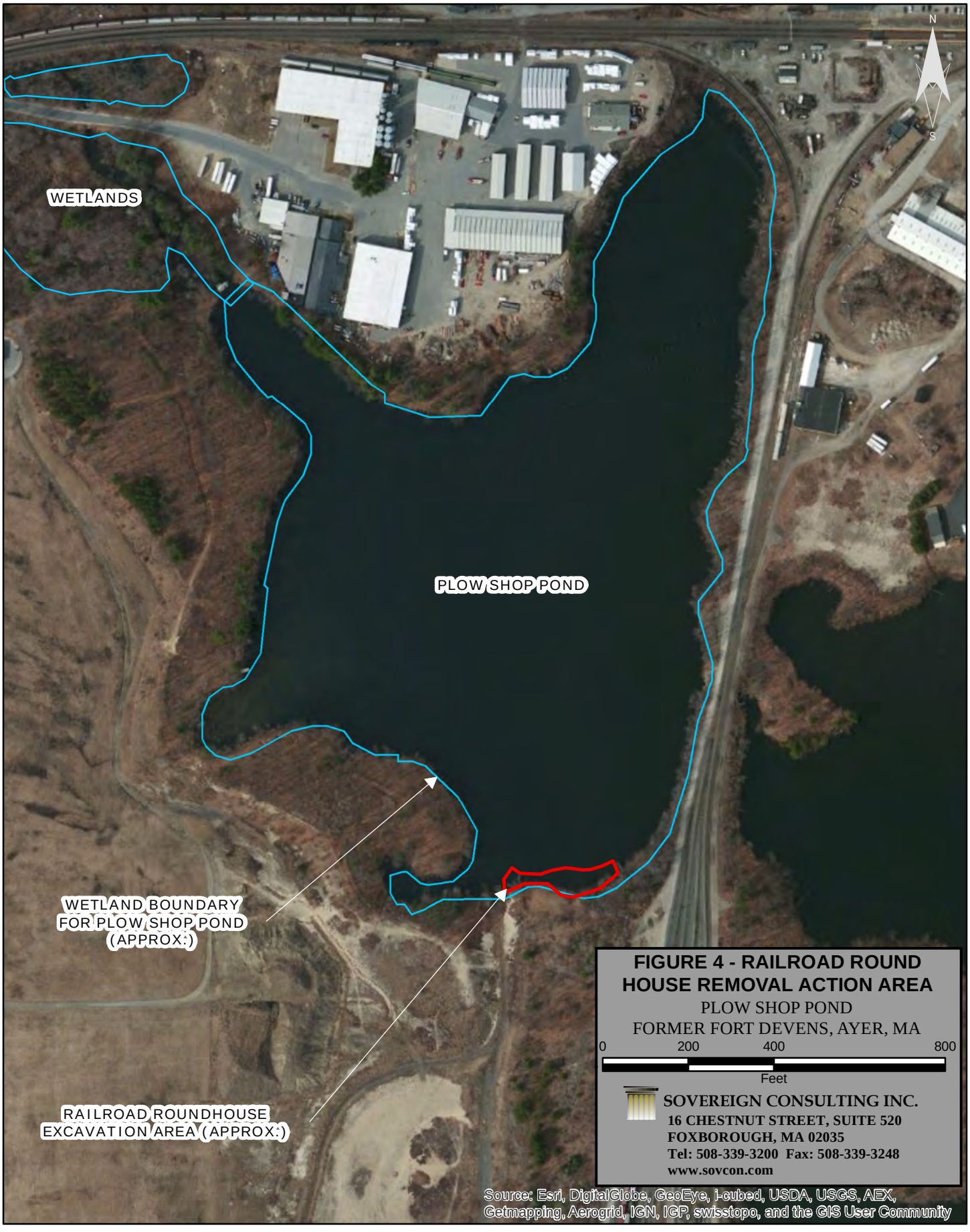

FIGURE 4 - RAILROAD ROUND HOUSE REMOVAL ACTION AREA

PLOW SHOP POND
FORMER FORT DEVENS, AYER, MA

0 200 400 800
Feet

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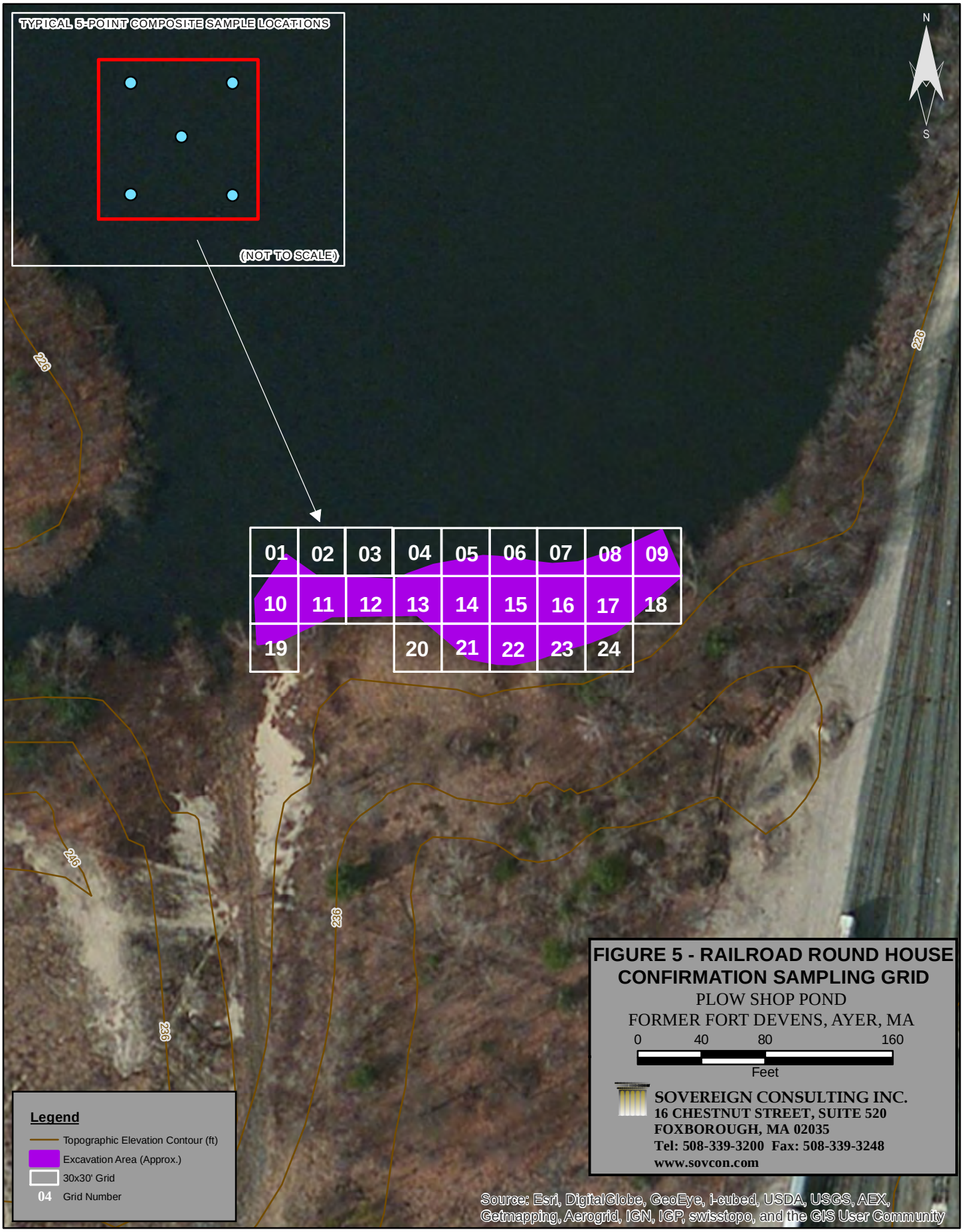
Data Source: National Wetland Inventory Layer. 2010. US Fish & Wildlife Service.

02/03/2012 ROV
Updated 04/08/2014 ROV



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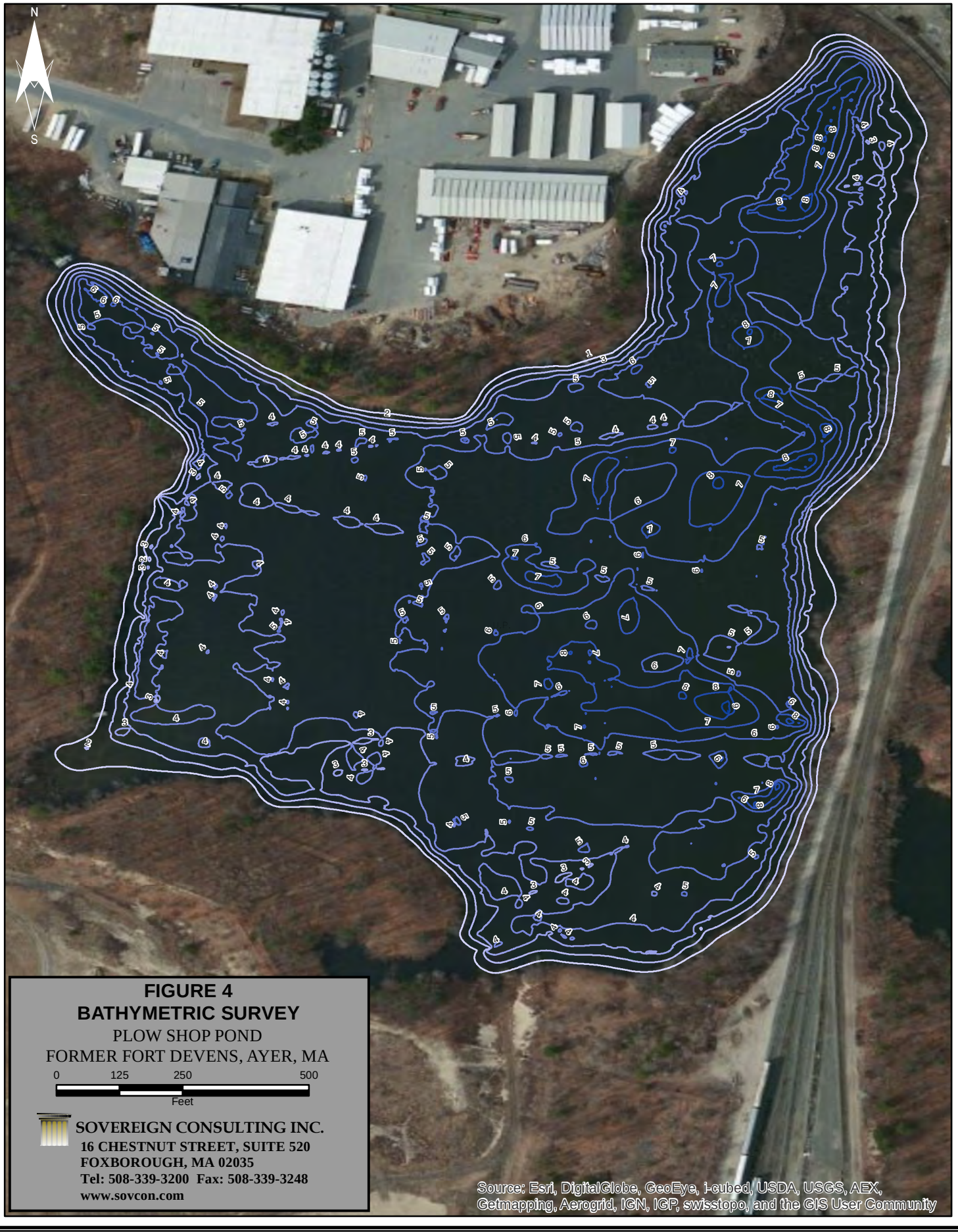

FIGURE 4
BATHYMETRIC SURVEY
PLOW SHOP POND
FORMER FORT DEVENS, AYER, MA

0 125 250 500
Feet

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Note: Bathymetric data collected and analyzed by Normandeau Environmental Consultants in December 2012.

01/10/2010 ROV
Updated 05/29/2014 ROV

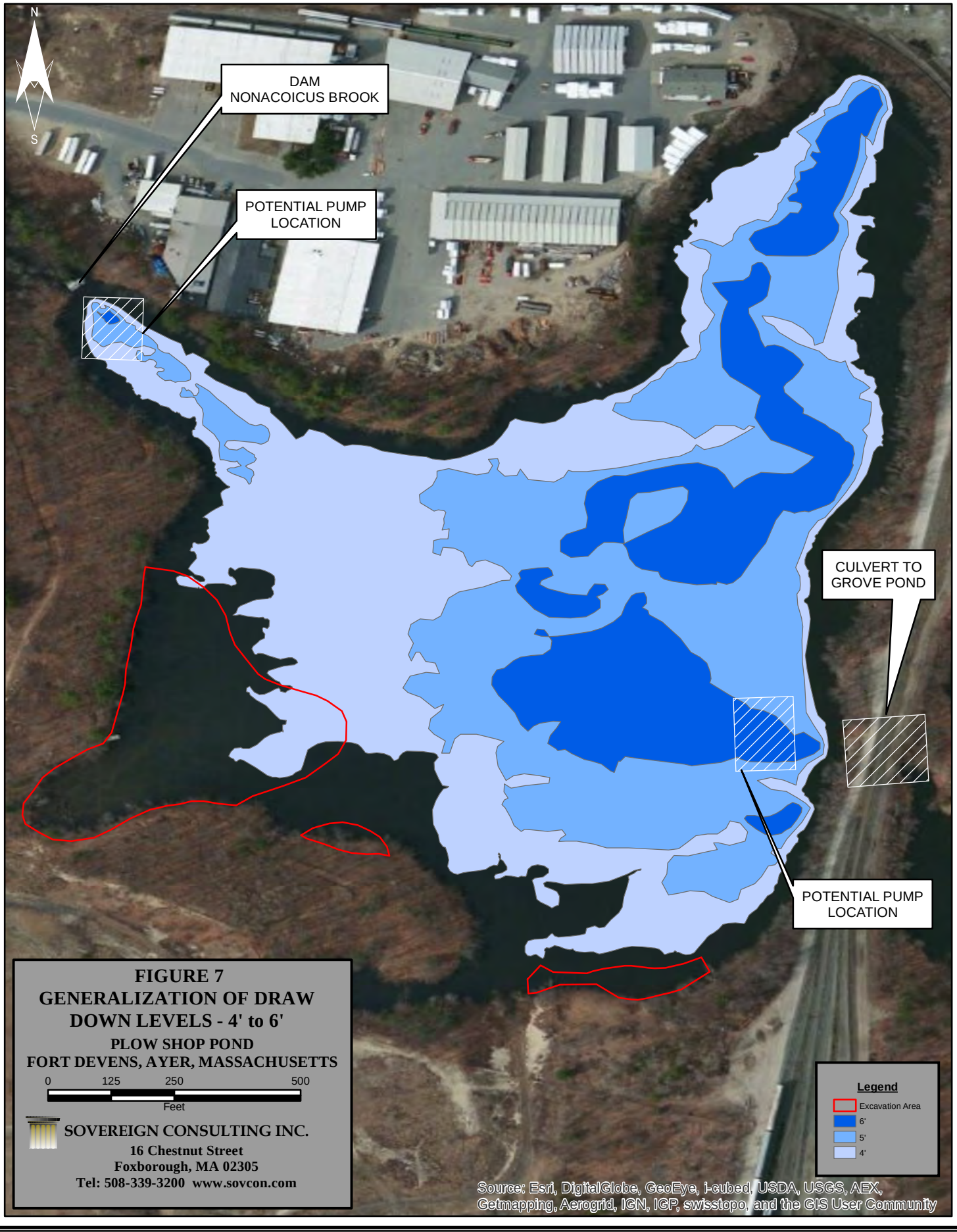

FIGURE 7
GENERALIZATION OF DRAW DOWN LEVELS - 4' to 6'
PLOW SHOP POND
FORT DEVENS, AYER, MASSACHUSETTS

0 125 250 500
Feet

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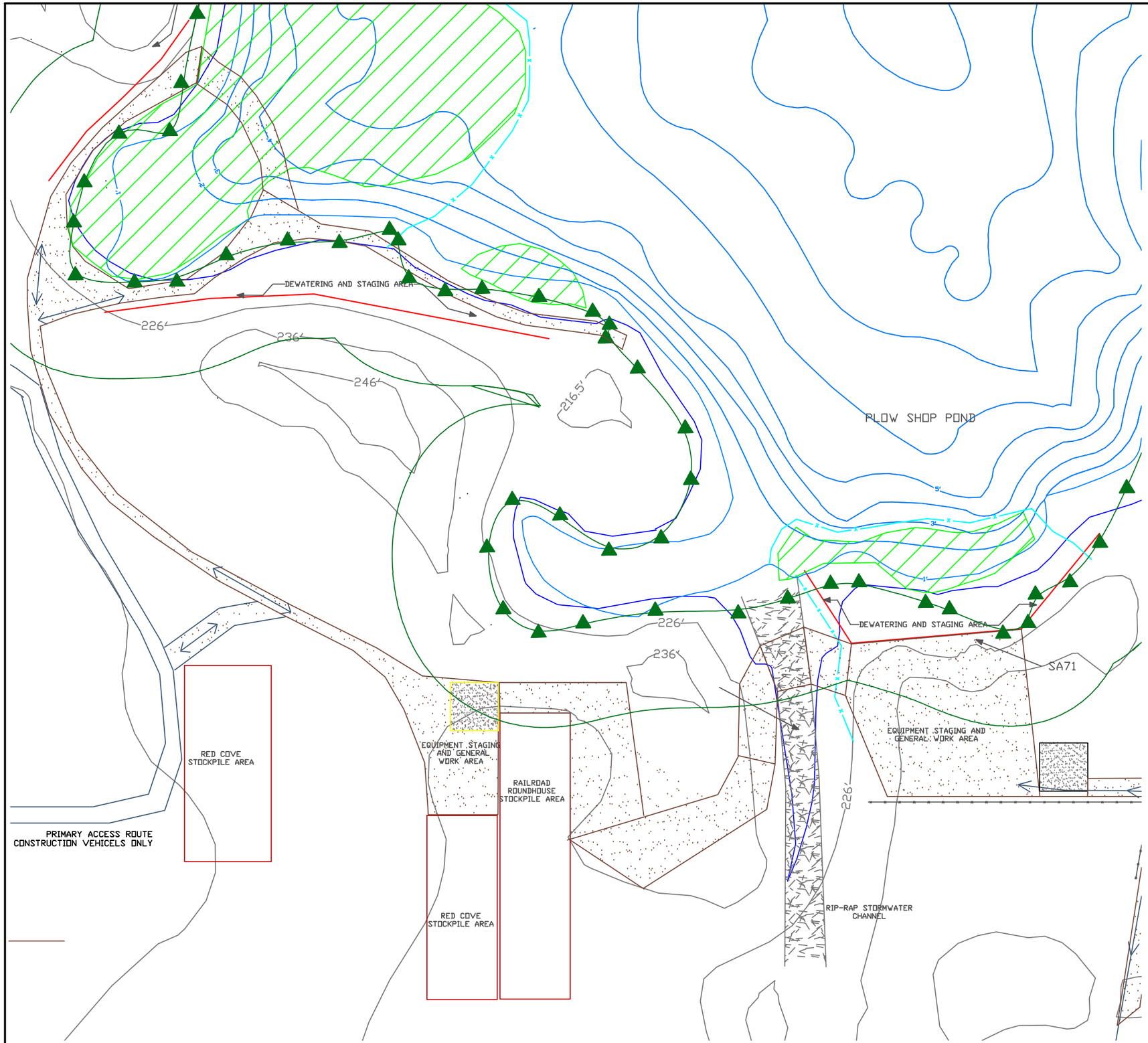
Note: 1. Bathymetric data collected and analyzed by Normandeau Environmental Consultants in December 2012.
2. Remaining areas at respective draw down level are approximate.

05/22/2013 ROV
Updated 07/24/2013 ROV



LEGEND

- STRAW WATTLES/SILT FENCE
- TRUCK TRAFFIC
- WETLAND BOUNDARY (FLAGGED, SOVEREIGN 2012, 2013)
- ACCESS ROADS/STAGING AREAS
- PROPOSED TRUCK DRY DECONTAMINATION AREA
- EXCAVATION AREAS (APPROX.)
- WORK ZONES
- MassGIS WATER LINE

FIGURE 8
PLOW SHOP POND STAGING AREAS

DRAWN BY: RBL	SCALE: 1" = 50'
CHK'D BY: RBL	DATE: 4/12/2014
JOB NO: AC001.005	SHEET: 1 OF 1

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FIGURE 9 - APPROXIMATE SURFACE WATER SAMPLE LOCATIONS

PLOW SHOP POND

FORT DEVENS, AYER, MASSACHUSETTS

0 150 300 600

Feet

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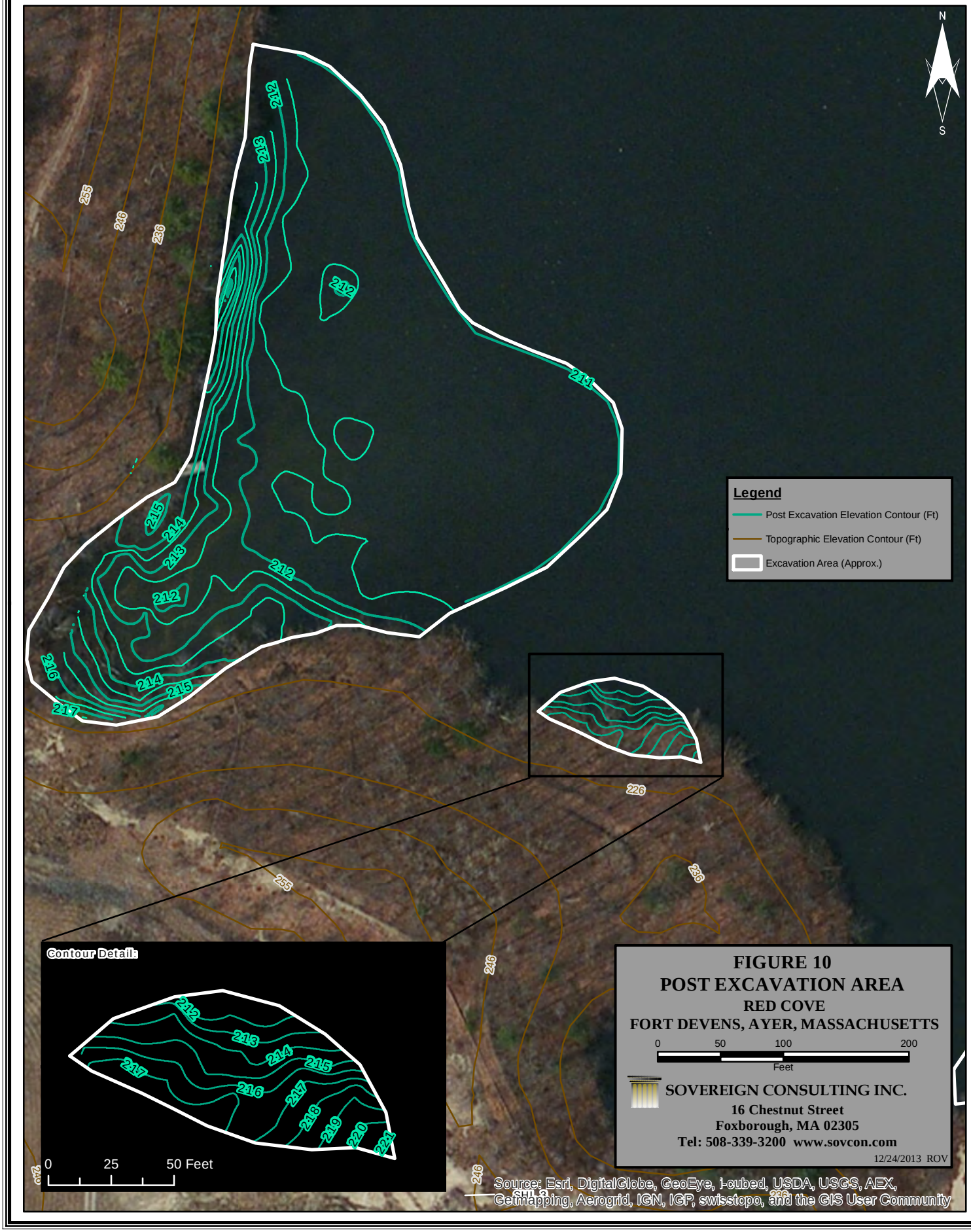
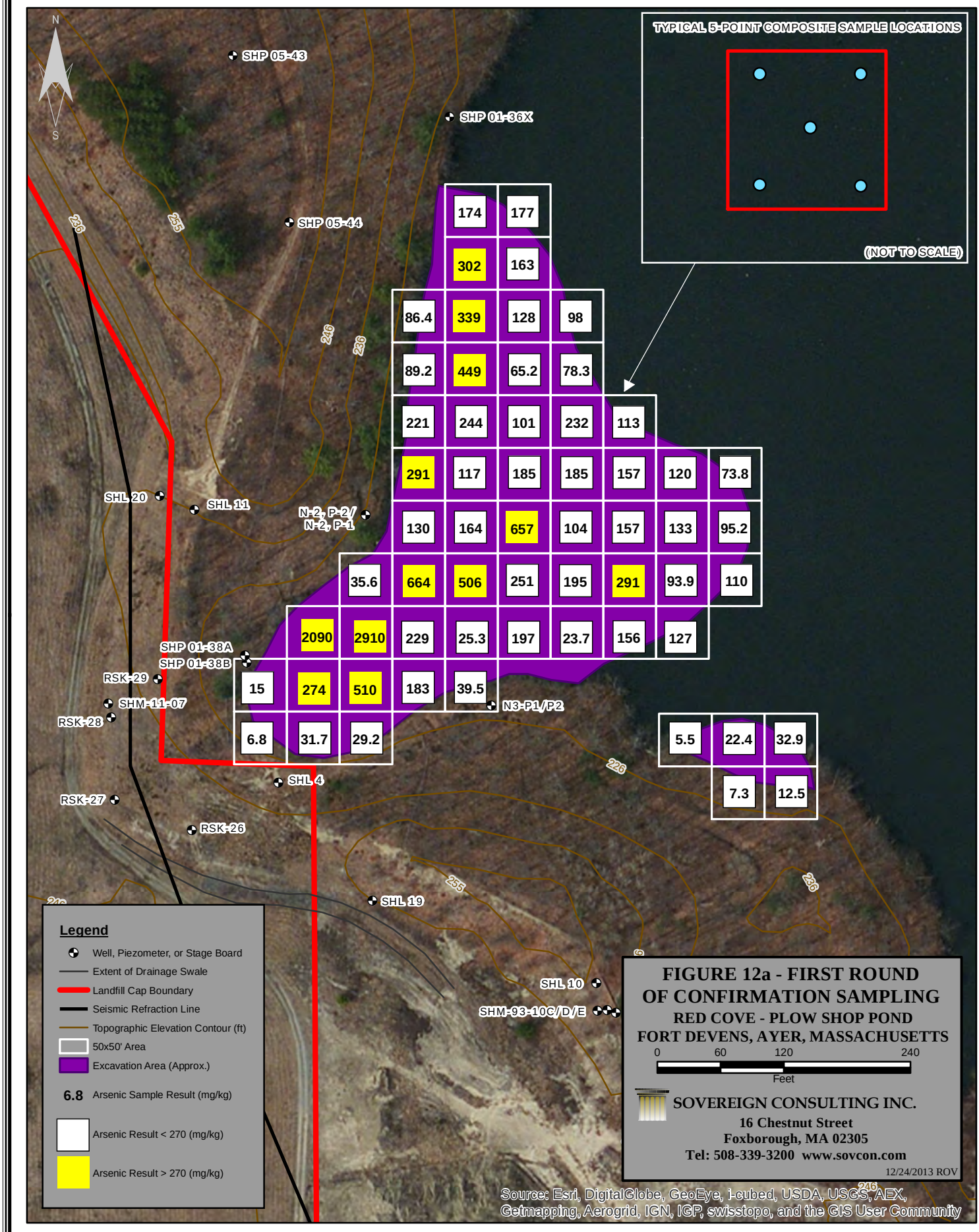
03/05/2013 CAS
Updated 06/20/2013 ROV



Note: The 211' contour is approximate and is used to represent the edge of the approximate excavation area.
Source: Elevation Contours. 2003. Office of Geographic Information (MassGIS.



Source: Elevation Contours. 2003. Office of Geographic Information (MassGIS).
Note: The abandoned vault locaiton is approximate.


TYPICAL 5-POINT COMPOSITE SAMPLE LOCATIONS
(NOT TO SCALE)
N
S
SHP 05-43
SHP 01-36X
SHP 05-44
SHL 20
SHL 11
N-2, P-2/
N-2, P-1
SHP 01-38A
SHP 01-38B
RSK-29
SHM-11-07
RSK-28
RSK-27
RSK-26
SHL 4
SHL 19
SHL 10
SHM-93-10C/D/E
N3-P1/P2
174
177
302
163
86.4
339
128
98
89.2
449
65.2
78.3
221
244
101
232
113
291
117
185
185
157
120
73.8
130
164
657
104
157
133
95.2
35.6
664
506
251
195
291
93.9
110
2090
2910
229
25.3
197
23.7
156
127
15
274
510
183
39.5
6.8
31.7
29.2
5.5
22.4
32.9
7.3
12.5
Legend
Well, Piezometer, or Stage Board
Extent of Drainage Swale
Landfill Cap Boundary
Seismic Refraction Line
Topographic Elevation Contour (ft)
50x50' Area
Excavation Area (Approx.)
6.8 Arsenic Sample Result (mg/kg)
Arsenic Result < 270 (mg/kg)
Arsenic Result > 270 (mg/kg)
FIGURE 12a - FIRST ROUND
OF CONFIRMATION SAMPLING
RED COVE - PLOW SHOP POND
FORT DEVENS, AYER, MASSACHUSETTS
0 60 120 240
Feet
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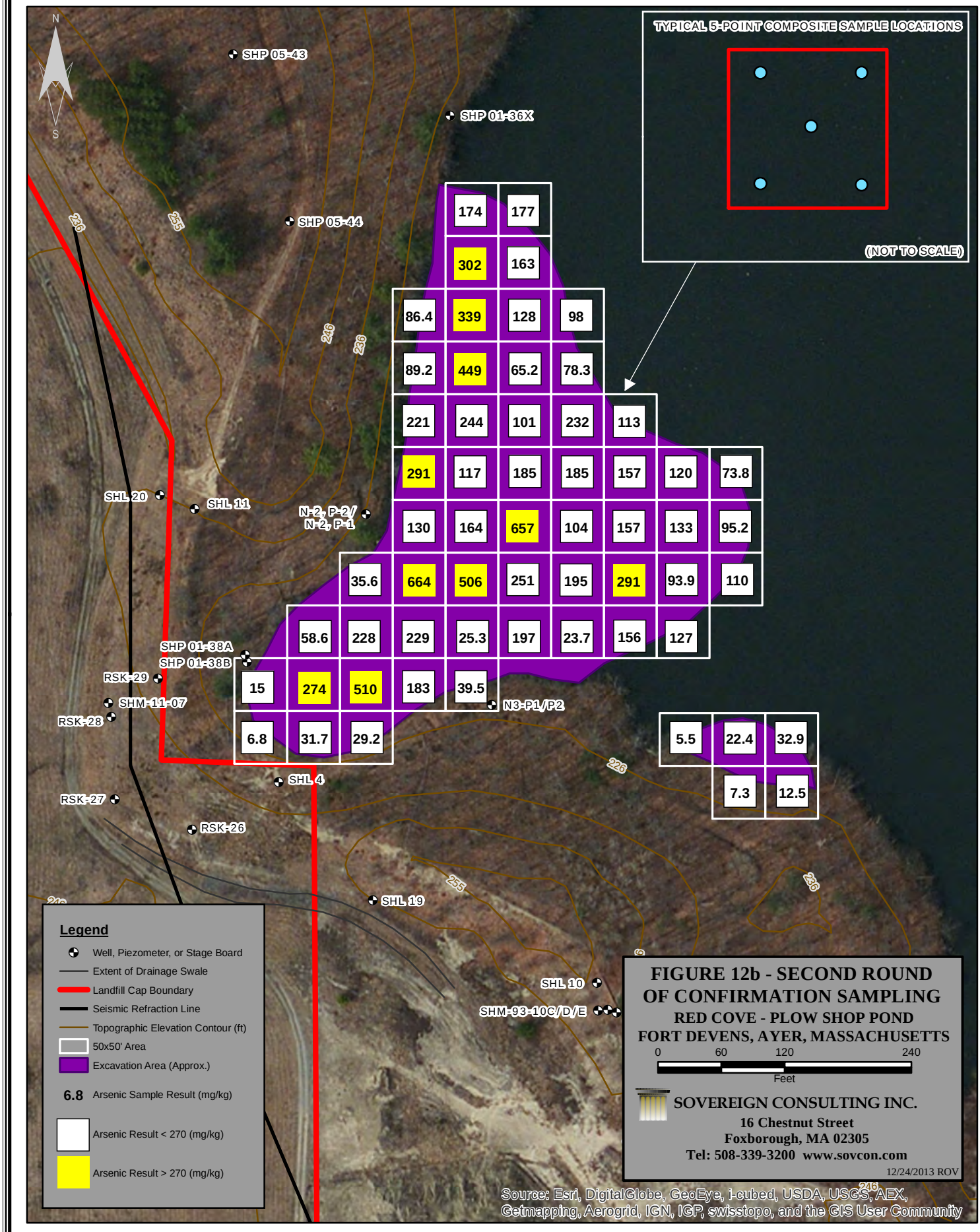
12/24/2013 ROV
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX,
Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community


TYPICAL 5-POINT COMPOSITE SAMPLE LOCATIONS
(NOT TO SCALE)
N
S
SHP 05-43
SHP 01-36X
SHP 05-44
SHL 20
SHL 11
N-2, P-2/
N-2, P-1
SHP 01-38A
SHP 01-38B
RSK-29
SHM-11-07
RSK-28
RSK-27
RSK-26
SHL 4
SHL 19
SHL 10
SHM-93-10C/D/E
N3-P1/P2
174
177
302
163
86.4
339
128
98
89.2
449
65.2
78.3
221
244
101
232
113
291
117
185
185
157
120
73.8
130
164
657
104
157
133
95.2
35.6
664
506
251
195
291
93.9
110
58.6
228
229
25.3
197
23.7
156
127
15
274
510
183
39.5
6.8
31.7
29.2
5.5
22.4
32.9
7.3
12.5
Legend
Well, Piezometer, or Stage Board
Extent of Drainage Swale
Landfill Cap Boundary
Seismic Refraction Line
Topographic Elevation Contour (ft)
50x50' Area
Excavation Area (Approx.)
6.8 Arsenic Sample Result (mg/kg)
Arsenic Result < 270 (mg/kg)
Arsenic Result > 270 (mg/kg)
FIGURE 12b - SECOND ROUND OF CONFIRMATION SAMPLING
RED COVE - PLOW SHOP POND
FORT DEVENS, AYER, MASSACHUSETTS
0 60 120 240
Feet
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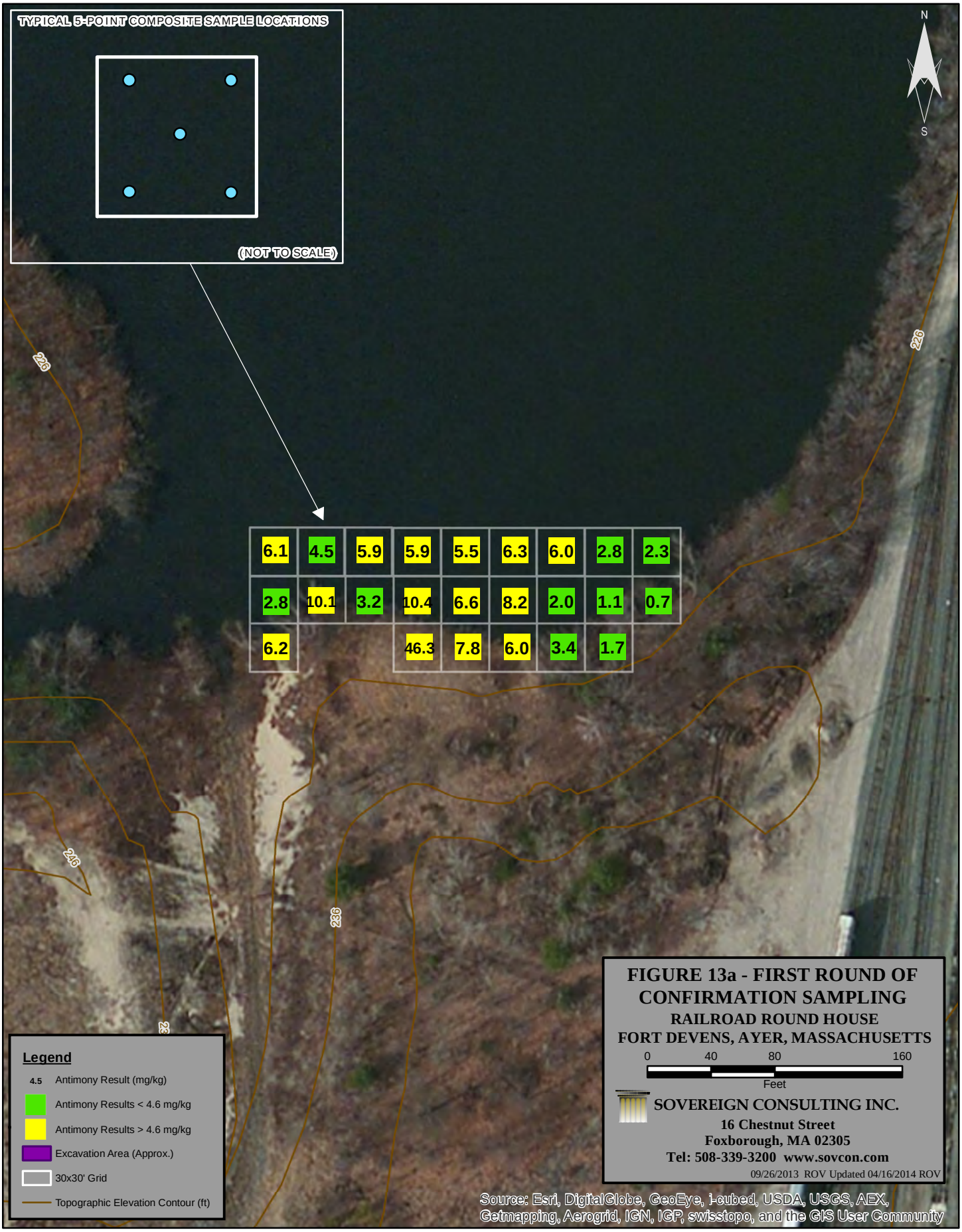
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community


TYPICAL 5-POINT COMPOSITE SAMPLE LOCATIONS
(NOT TO SCALE)
N
S
6.1 4.5 5.9 5.9 5.5 6.3 6.0 2.8 2.3
2.8 10.1 3.2 10.4 6.6 8.2 2.0 1.1 0.7
6.2 46.3 7.8 6.0 3.4 1.7
226
226
246
236
32
Legend
4.5 Antimony Result (mg/kg)
Antimony Results < 4.6 mg/kg
Antimony Results > 4.6 mg/kg
Excavation Area (Approx.)
30x30' Grid
Topographic Elevation Contour (ft)
FIGURE 13a - FIRST ROUND OF CONFIRMATION SAMPLING
RAILROAD ROUND HOUSE
FORT DEVENS, AYER, MASSACHUSETTS
0 40 80 160
Feet
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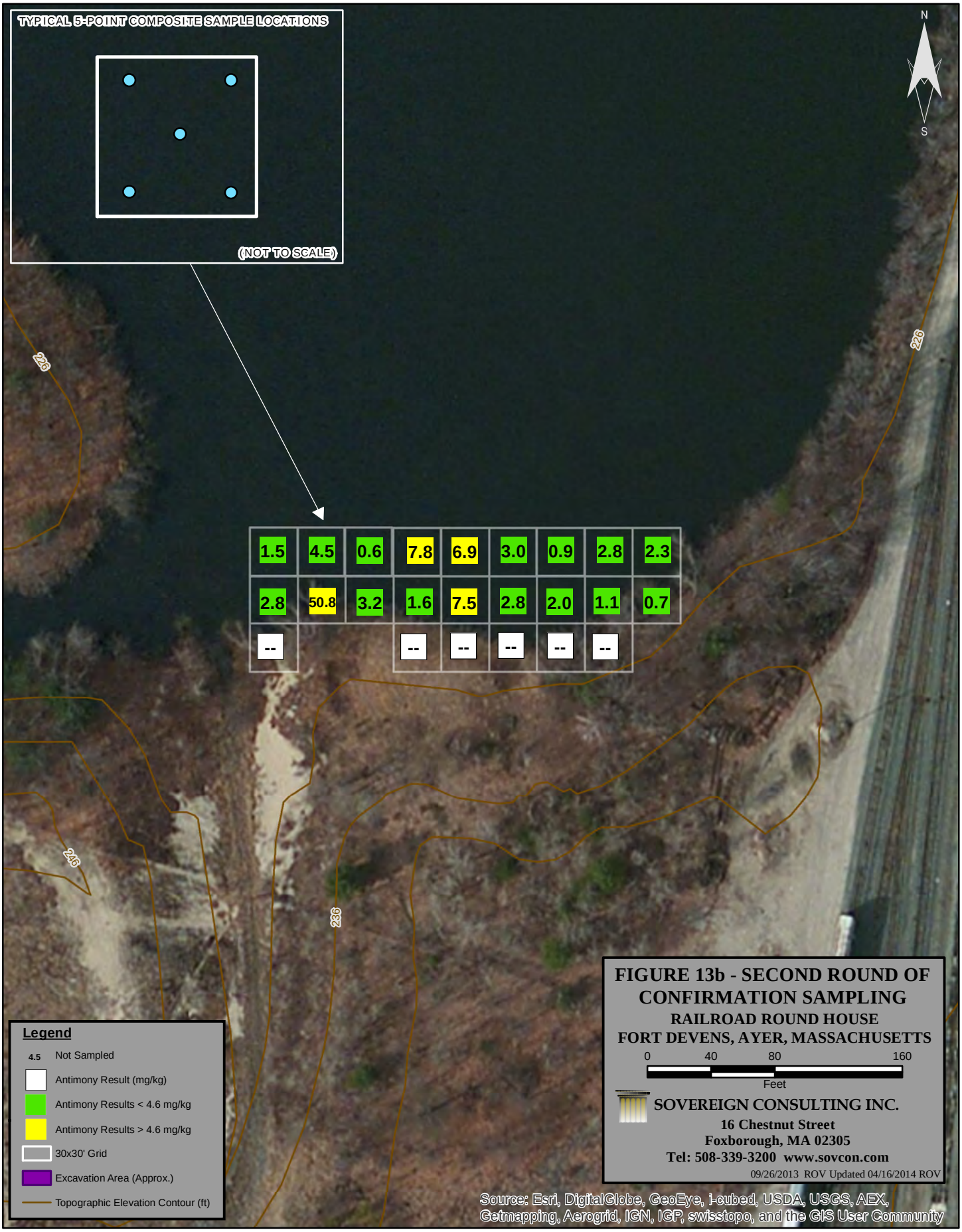
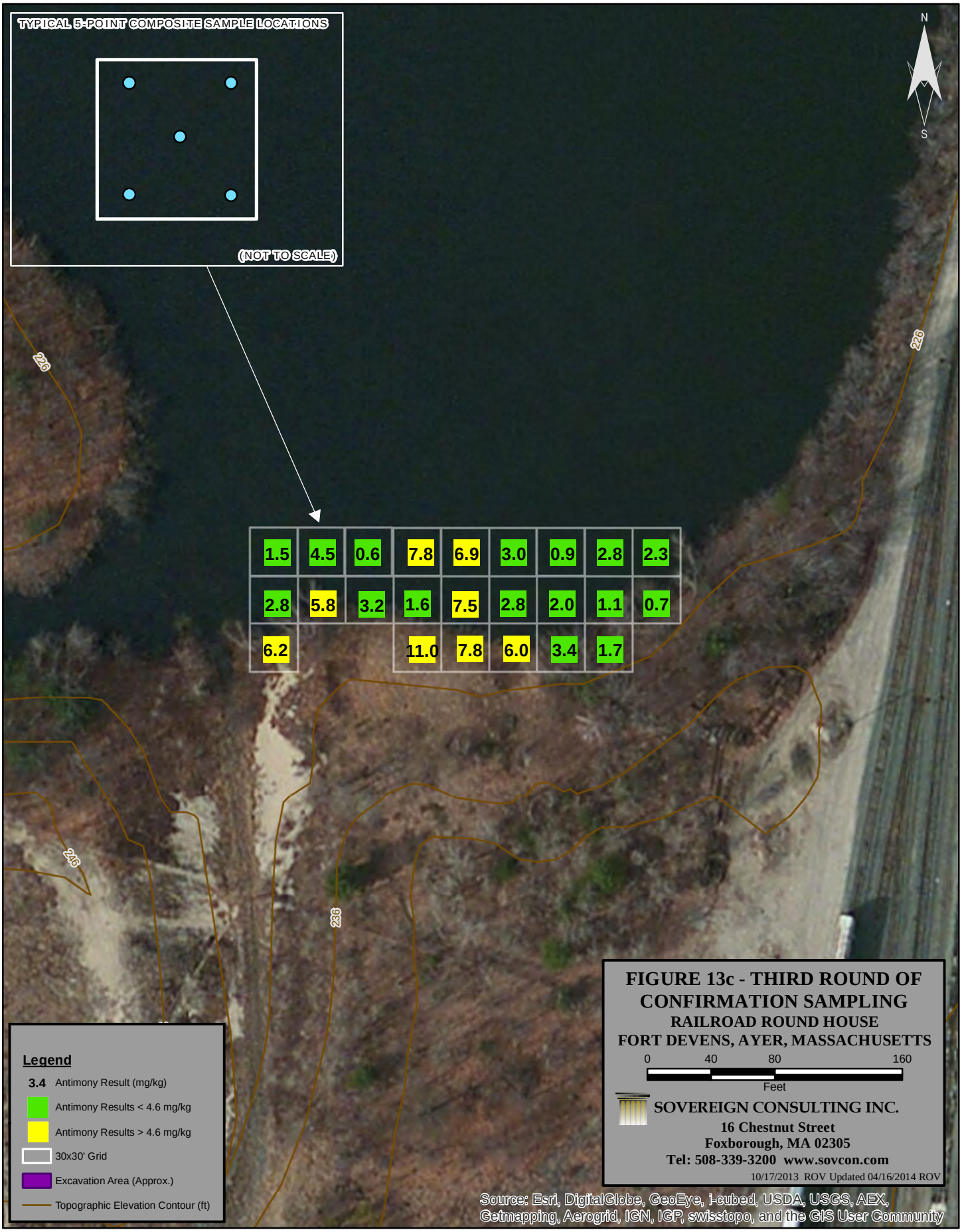
09/26/2013 ROV Updated 04/16/2014 ROV
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community


TYPICAL 5-POINT COMPOSITE SAMPLE LOCATIONS
(NOT TO SCALE)
N
S
1.5 4.5 0.6 7.8 6.9 3.0 0.9 2.8 2.3
2.8 50.8 3.2 1.6 7.5 2.8 2.0 1.1 0.7
-- -- -- -- -- --
226
226
246
236
Legend
4.5 Not Sampled
Antimony Result (mg/kg)
Antimony Results < 4.6 mg/kg
Antimony Results > 4.6 mg/kg
30x30' Grid
Excavation Area (Approx.)
Topographic Elevation Contour (ft)
FIGURE 13b - SECOND ROUND OF CONFIRMATION SAMPLING
RAILROAD ROUND HOUSE
FORT DEVENS, AYER, MASSACHUSETTS
0 40 80 160
Feet
SOVEREIGN CONSULTING INC.
16 Chestnut Street
Foxborough, MA 02305
Tel: 508-339-3200 www.sovcon.com
09/26/2013 ROV Updated 04/16/2014 ROV
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community


TYPICAL 5-POINT COMPOSITE SAMPLE LOCATIONS
(NOT TO SCALE)
N
S
1.5
4.5
0.6
7.8
6.9
3.0
0.9
2.8
2.3
2.8
5.8
3.2
1.6
7.5
2.8
2.0
1.1
0.7
6.2
11.0
7.8
6.0
3.4
1.7
220
220
240
230
Legend
3.4 Antimony Result (mg/kg)
Antimony Results < 4.6 mg/kg
Antimony Results > 4.6 mg/kg
30x30' Grid
Excavation Area (Approx.)
Topographic Elevation Contour (ft)
FIGURE 13c - THIRD ROUND OF CONFIRMATION SAMPLING
RAILROAD ROUND HOUSE
FORT DEVENS, AYER, MASSACHUSETTS
0 40 80 160
Feet
SOVEREIGN CONSULTING INC.
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10/17/2013 ROV Updated 04/16/2014 ROV
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

TABLES

TABLE 1
SUMMARY OF SURFACE WATER DATA - TOTAL ARSENIC
PLOW SHOP POND

			Total Arsenic		Field Parameters			
Location ID	**Sample ID**	**Date**	**Surface Water (ug/L)**	**Q**	**Turbidity NTU**	**Temp Celsius**	**DO mg/L**	**Notes**
Cleanup Criteria			**150 ug/L**					
PSP-SW-10	PSP-SW-10-073013	7/30/2013	8.944	B	9.0	26.33	6.38	
	PSP-SW-10-080113	8/1/2013	8.517		3.9	24.74	6.69	
	PSP-SW10-080913	8/9/2013	5.900		2.1	23.77	6.56	
	PSP-SW10-081513	8/15/2013	5.725	B	7.2	26.05	6.26	
	PSP-SW10-081613	8/16/2013	9.116		6.0	22.32	6.86	
	PSP-SW10-081913	8/19/2013	9.831	B	2.3	24.55	8.26	
	PSP-SW10-082013	8/20/2013	8.920		2.3	24.50	8.60	
	PSP-SW10-082113	8/21/2013	8.920		4.1	26.20	7.72	
	PSP-SW10-082213	8/22/2013	9.110		3.2	25.28	6.08	
	PSP-SW10-082313	8/23/2013	10.30		9.8	24.66	5.70	
	PSP-SW10-082613	8/26/2013	11.34		11.0	22.75	5.78	
	PSP-SW10-082713	8/27/2013	10.93		10.1	23.66	6.09	
	PSP-SW10-082813	8/28/2013	12.27		11.6	23.35	5.62	
	PSP-SW10-082913	8/29/2013	14.47		11.9	23.83	4.82	
	PSP-SW10-083013	8/30/2013	20.06		12.9	20.88	3.97	
	PSP-SW10-090313	9/3/2013	14.81		26.0	24.84	4.95	
	Location unavailable by boat	9/4/2013	NC		-	-	-	
	PSP-SW10-090513	9/5/2013	12.86		23.0	22.00	5.19	
	PSP-SW10-090613	9/6/2013	13.33		20.8	18.50	6.63	
	PSP-SW10-091013	9/10/2013	13.23		18.8	18.63	5.58	
	PSP-SW10-091313	9/13/2013	18.37		20.2	24.42	5.17	
		9/17/2013			14.1	15.75	5.60	
	PSP-SW-10-091913	9/19/2013	9.38		9.2	16.77	6.45	
	PSP-SW-10-092413	9/24/2013	8.77		13.7	15.45	7.11	
	PSP-SW10-092713	9/27/2013	9.335		16.4	17.41	5.93	
	PSP-SW10-100113	10/1/2013	8.040		13.4	15.94	7.17	
	Inaccessible - No sample collected	10/3/2013	NC		-	-	-	
	PSP-SW10-100813	10/8/2013	7.75		11.6	16.87	5.96	
	PSP-SW10-101113	10/11/2013	6.38		9.9	14.20	7.50	
PSP-SW-11	PSP-SW-11-073013	7/30/2013	9.277	B	4.2	25.18	6.95	
	FD-073013	7/30/2013	9.140	B	-	-	-	
	PSP-SW-11-080113	8/1/2013	14.16		4.3	25.51	6.65	
	FD-080113	8/1/2013	12.30		-	-	-	
	PSP-SW11-080913	8/9/2013	6.080		1.9	24.02	7.50	
	PSP-SW11-081513	8/15/2013	7.023	B	3.5	23.04	7.31	
	PSP-SW11-081613	8/16/2013	8.948		4.6	23.49	7.45	
	PSP-SW11-081913	8/19/2013	11.72	B	3.5	26.36	7.63	
	PSP-SW11-082013	8/20/2013	9.640		4.4	24.84	7.50	
	PSP-SW11-082113	8/21/2013	10.25		5.2	26.52	7.56	
	PSP-SW11-082213	8/22/2013	10.27		6.6	24.98	5.51	
	PSP-SW11-082313	8/23/2013	12.88		11.4	24.36	5.85	
	PSP-SW11-082613	8/26/2013	11.93		8.6	22.73	7.52	
	PSP-SW11-082713	8/27/2013	13.79		10.4	24.46	6.75	
	PSP-SW11-082813	8/28/2013	14.04		8.6	23.15	4.38	
	PSP-SW11-082913	8/29/2013	15.73		14.2	22.86	6.50	
	PSP-SW11-083013	8/30/2013	14.49		15.1	19.43	5.45	
	PSP-SW11-090313	9/3/2013	16.91		22.8	25.79	7.58	
	PSP-SW11-090413	9/4/2013	14.54		20.4	21.13	1.86	
	PSP-SW11-090513	9/5/2013	15.94		21.8	18.09	10.03	
	PSP-SW11-090613	9/6/2013	13.79		19.1	17.30	11.09	
	PSP-SW11-091013	9/10/2013	16.77		15.5	18.46	8.02	
	PSP-SW11-091313	9/13/2013	19.29		17.5	24.71	7.23	
		9/17/2013			10.5	14.78	8.08	
	PSP-SW-11-091913	9/19/2013	16.06		19.7	15.67	6.49	
	PSP-SW-11-092413	9/24/2013	13.47		26.8	15.10	7.39	
	PSP-SW11-092713	9/27/2013	16.62		25.2	17.05	6.31	
	PSP-SW11-100113	10/1/2013	12.45		14.8	15.27	8.98	
	PSP-SW11-100313	10/3/2013	12.84		14.2	16.03	8.19	
	PSP-SW11-100813	10/8/2013	19.02		14.5	16.09	1.11	
	PSP-SW11-101113	10/11/2013	13.15		7.2	12.62	1.17	

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PLOW SHOP POND

			Total Arsenic		Field Parameters			
Location ID	**Sample ID**	**Date**	**Surface Water (ug/L)**	**Q**	**Turbidity NTU**	**Temp Celsius**	**DO mg/L**	**Notes**
Cleanup Criteria			**150 ug/L**					
PSP-SW-12	PSP-SW-12-073013	7/30/2013	8.948	B	3.9	25.24	7.10	
	PSP-SW-12-080113	8/1/2013	10.26		3.8	24.78	6.23	
	PSP-SW12-080913	8/9/2013	5.750		1.5	23.97	8.59	
	PSP-SW12-081513	8/15/2013	7.472	B	5.6	22.97	7.65	
	PSP-SW12-081613	8/16/2013	8.120		1.8	23.40	7.33	
	PSP-SW12-081913	8/19/2013	10.81	B	3.6	26.44	7.10	
	PSP-SW12-082013	8/20/2013	9.160		3.2	24.77	7.20	
	PSP-SW12-082113	8/21/2013	9.800		4.2	26.44	7.39	
	PSP-SW12-082213	8/22/2013	9.770		5.9	25.11	5.29	
	PSP-SW12-082313	8/23/2013	11.90		8.4	24.14	5.60	
	PSP-SW12-082613	8/26/2013	11.72		8.5	22.65	7.07	
	PSP-SW12-082713	8/27/2013	12.56		10.8	24.38	6.59	
	FD-082713	8/27/2013	12.57		-	-	-	
	PSP-SW12-082813	8/28/2013	12.61		9.5	23.12	4.80	
	PSP-SW12-082913	8/29/2013	13.16		10.3	22.91	5.74	
	PSP-SW12-083013	8/30/2013	12.77		10.3	19.60	3.49	
	PSP-SW12-090313	9/3/2013	15.95		20.3	25.26	6.68	
	PSP-SW12-090413	9/4/2013	22.24		38.3	20.01	1.36	
	PSP-SW12-090513	9/5/2013	13.41		17.5	20.05	7.01	
	PSP-SW12-090613	9/6/2013	12.17		14.6	13.22	11.60	
	PSP-SW12-091013	9/10/2013	16.13		17.1	18.49	7.98	
	PSP-SW12-091313	9/13/2013	18.95		22.0	24.44	6.61	
		9/17/2013			10.5	14.38	7.96	
	PSP-SW-12-091913	9/19/2013	15.90		17.9	15.14	5.85	
	PSP-SW-12-092413	9/24/2013	12.18		23.5	14.43	6.49	
	FD-092413	9/24/2013	12.37		-	-	-	
	PSP-SW12-092713	9/27/2013	16.43		21.6	16.97	6.21	
	PSP-SW12-100113	10/1/2013	12.10		15.1	15.00	8.45	
	PSP-SW12-100313	10/3/2013	12.07		14.0	15.98	7.90	
	PSP-SW12-100813	10/8/2013	17.01		12.2	13.43	0.99	
	PSP-SW12-101113	10/11/2013	8.41		5.7	11.71	1.42	

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			Total Arsenic		Field Parameters			
Location ID	**Sample ID**	**Date**	**Surface Water (ug/L)**	**Q**	**Turbidity NTU**	**Temp Celsius**	**DO mg/L**	**Notes**
Cleanup Criteria			**150 ug/L**					
PSP-SW-13	PSP-SW-13-073013	7/30/2013	8.788	B	3.0	25.30	6.74	
	PSP-SW-13-080113	8/1/2013	9.466		2.8	24.89	6.35	
	PSP-SW13-080913	8/9/2013	5.820		2.7	24.01	6.88	
	PSP-SW13-081513	8/15/2013	7.878	B	3.9	22.96	7.48	
	PSP-SW13-081613	8/16/2013	8.673		1.8	23.42	6.99	
	PSP-SW13-081913	8/19/2013	9.968	B	1.9	26.37	7.10	
	FD-081913	8/19/2013	9.904	B	-	-	-	
	PSP-SW13-082013	8/20/2013	8.750		3.3	24.52	7.08	
	PSP-SW13-082113	8/21/2013	9.740		5.1	26.26	7.03	
	PSP-SW13-082213	8/22/2013	9.460		6.2	24.96	5.41	
	PSP-SW13-082313	8/23/2013	11.74		8.5	23.93	5.27	
	PSP-SW13-082613	8/26/2013	11.33		8.3	22.38	6.85	
	PSP-SW13-082713	8/27/2013	12.41		10.6	24.16	6.60	
	PSP-SW13-082813	8/28/2013	13.02		12.2	23.84	6.21	
	PSP-SW13-082913	8/29/2013	12.69		8.7	22.92	5.35	
	PSP-SW13-083013	8/30/2013	13.22		11.7	19.35	7.01	
	PSP-SW13-090313	9/3/2013	15.76		18.4	24.87	6.70	
	FD-090313	9/3/2013	14.67		-	-	-	
	PSP-SW13-090413	9/4/2013	16.92		21.4	20.82	1.69	
	PSP-SW13-090513	9/5/2013	12.46		15.9	18.07	9.93	
	PSP-SW13-090613	9/6/2013	12.22		14.2	17.48	8.58	
	PSP-SW13-091013	9/10/2013	15.22		18.8	18.42	7.88	
	FD-091013	9/10/2013	15.66		-	-	-	
	PSP-SW13-091313	9/13/2013	19.32		19.1	24.19	6.38	
		9/17/2013			10.6	14.30	7.77	
	PSP-SW-13-091913	9/19/2013	15.53		16.8	14.71	5.60	
	PSP-SW-13-092413	9/24/2013	10.87		12.7	13.70	6.23	
	PSP-SW13-092713	9/27/2013	16.12		22.3	16.92	5.85	
	PSP-SW13-100113	10/1/2013	11.43		12.2	14.77	8.41	
	FD-100113	10/1/2013	11.57		-	-	-	
	PSP-SW13-100313	10/3/2013	11.55		14.3	15.97	7.86	
	PSP-SW13-100813	10/8/2013	16.42		12.8	14.15	1.50	
	FD-100813	10/8/2013	16.79		-	-	-	
	PSP-SW13-101113	10/11/2013	11.87		9.5	11.88	1.47	

Notes:

QUALIFIER 'B' :- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated times (10x) field samples that have detectable concentrations of the analyte at less than ten the concentration found in the blank.

NC Not Collected

\- Not Available

Table 2
Summary of Red Cove Sediment Data - Total Arsenic
Railroad Round House Removal Action
Former Fort Devens

Location ID	Sample ID	Grid Number	Sampling Depth (Inches)	Date	Total Arsenic Sediment (mg/kg)	Qualifier	Note
Cleanup Criteria					**270 mg/kg**		
RC-SD-01-001	RC-SD-01-001-100713 FD-100713-01	1	12	10/7/2013 10/7/2013	174 163	Q Q	(a), (b)
RC-SD-02-001	RC-SD-02-001-100713	2	12	10/7/2013	177	Q	(a), (b)
RC-SD-03-001	RC-SD-03-001-100713	3	12	10/7/2013	**302**	Q	(a), (b)
RC-SD-04-001	RC-SD-04-001-100713	4	12	10/7/2013	163	Q	(a), (b)
RC-SD-05-001	RC-SD-05-001-100713	5	12	10/7/2013	86.4	Q	(a), (b)
RC-SD-06-001	RC-SD-06-001-100413	6	12	10/4/2013	**399**	Q	(a), (b)
RC-SD-07-001	RC-SD-07-001-100413	7	12	10/4/2013	128	Q	(a), (b)
RC-SD-08-001	RC-SD-08-001-100413	8	12	10/4/2013	98.0	Q	(a), (b)
RC-SD-09-001	RC-SD-09-001-100713	9	12	10/7/2013	89.2	Q	(a), (b)
RC-SD-10-001	RC-SD-10-001-100313	10	12	10/3/2013	**449**	Q	(a), (b)
RC-SD-11-001	RC-SD-11-001-100413	11	12	10/4/2013	65.2	Q	(a), (b)
RC-SD-12-001	RC-SD-12-001-100413	12	12	10/4/2013	78.3	Q	(a), (b)
RC-SD-13-001	RC-SD-13-001-100313	13	12	10/3/2013	221	Q	(a), (b)
RC-SD-14-001	RC-SD-14-001-100313	14	12	10/3/2013	244		(a), (b)
RC-SD-15-001	RC-SD-15-001-100313	15	12	10/3/2013	101		(a), (b)
RC-SD-16-001	RC-SD-16-001-100313	16	12	10/3/2013	232	Q	(a), (b)
RC-SD-17-001	RC-SD-17-001-100413	17	12	10/4/2013	113	Q	(a), (b)
RC-SD-18-001	RC-SD-18-001-100313	18	12	10/3/2013	**291**	Q	(a), (b)
RC-SD-19-001	RC-SD-19-001-100313	19	12	10/3/2013	117	Q	(a), (b)
RC-SD-20-001	RC-SD-20-001-100313	20	12	10/3/2013	185	Q	(a), (b)

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Railroad Round House Removal Action
Former Fort Devens

Location ID	Sample ID	Grid Number	Sampling Depth (Inches)	Date	Total Arsenic Sediment (mg/kg)	Qualifier	Note
Cleanup Criteria					**270 mg/kg**		
RC-SD-21-001	RC-SD-21-001-100313	21	12	10/3/2013	185	Q	(a), (b)
RC-SD-22-001	RC-22-001-100213	22	12	10/2/2013	157	Q	(a), (b)
RC-SD-23-001	RC-SD-23-001-100213	23	12	10/2/2013	120	Q	(a), (b)
RC-SD-24-001	RC-SD-24-001-100213	24	12	10/2/2013	73.8	Q	(a), (b)
RC-SD-25-001	RC-SD-25-001-092513	25	12	9/25/2013	130	Q	(a), (b)
RC-SD-26-001	RC-SD-26-001-100313	26	12	10/3/2013	164	Q	(a), (b)
RC-SD-27-001	RC-SD-27-001-100313	27	12	10/3/2013	**657**	Q	(a), (b)
RC-SD-28-001	RC-SD-28-001-100313	28	12	10/3/2013	104	Q	
	FD-100313-001			10/3/2013	166	Q	(a), (b)
RC-SD-29-001	RC-SD-29-001-100213	29	12	10/2/2013	157	Q	(a), (b)
RC-SD-30-001	RC-SD-30-001-100213	30	12	10/2/2013	133	Q	(a), (b)
RC-SD-31-001	RC-SD-31-001-100213	31	12	10/2/2013	95.2	Q	(a), (b)
RC-SD-32-001	RC-SD-32-001-091213	32	12	9/12/2013	35.6	Q	(a), (b)
RC-SD-33-001	RC-SD-33-001-091313	33	12	9/13/2013	**664**	Q	(a), (b)
	FD-091313-01			9/13/2013	**632**	Q	
RC-SD-34-001	RC-SD-34-001-092513	34	12	9/25/2013	**506**	Q	(a), (b)
	FD-092513-01			9/25/2013	**492**	Q	
RC-SD-35-001	RC-SD-35-001-092513	35	12	9/25/2013	251	Q	(a), (b)
RC-SD-36-001	RC-SD-36-001-100213	36	12	10/2/2013	195	Q	(a), (b)
RC-SD-37-001	RC-SD-37-001-100213	37	12	10/2/2013	**291**	Q	(a), (b)
RC-SD-38-001	RC-SD-38-001-100213	38	12	10/2/2013	93.9	Q	(a), (b)

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Summary of Red Cove Sediment Data - Total Arsenic
Railroad Round House Removal Action
Former Fort Devens

Location ID	Sample ID	Grid Number	Sampling Depth (Inches)	Date	Total Arsenic Sediment (mg/kg)	Qualifier	Note
Cleanup Criteria					**270 mg/kg**		
RC-SD-39-001	RC-SD-39-001-100213	39	12	10/2/2013	110	Q	(a), (b)
RC-SD-40-001	RC-SD-40-001-091913	40	12	9/19/2013	**2,090**	Q	
	FD-091913-01			9/19/2013	**2,690**		
	RC-SD-40-002-100713	40	24	10/7/2013	58.6	Q	(a), (b)
RC-SD-41-001	RC-SD-41-001-091813	41	12	9/18/2013	**2,910**	Q	
	FD-091813-01			9/18/2013	**2,510**	Q	
	RC-SD-41-002-100813	41	24	10/18/2013	228	Q	(a), (b)
RC-SD-42-001	RC-SD-42-001-091213	42	12	9/12/2013	229	Q	(a), (b)
	FD-091213-01			9/12/2013	216	Q	
RC-SD-43-001	RC-SD-43-001-091113	43	12	9/11/2013	25.3	Q	(a), (b)
RC-SD-44-001	RC-SD-44-001-092513	44	12	9/25/2013	197	Q	(a), (b)
RC-SD-45-001	RC-SD-45-001-100213	45	12	10/2/2013	23.7	Q	(a), (b)
RC-SD-46-001	RC-SD-46-001-100213	46	12	10/2/2013	156	Q	
	FD-100213-01			10/2/2013	163	Q	(a), (b)
RC-SD-47-001	RC-SD-47-001-100213	47	12	10/2/2013	127	Q	(a), (b)
RC-SD-48-001	RC-SD-48-001-100813	48	12	10/8/2013	15.0	Q	
	FD-100813-01			10/8/2013	16.9	Q	(a), (b)
RC-SD-49-001	RC-SD-49-001-092013	49	12	9/20/2013	**274**	Q	(a), (b)
RC-SD-50-001	RC-SD-50-001-091713	50	12	9/17/2013	**510**	Q	
	FD-091713-01			9/17/2013	**543**	Q	(a), (b)
RC-SD-51-001	RC-SD-51-001-091213	51	12	9/12/2013	183	Q	(a), (b)
RC-SD-52-001	RC-SD-52-001-091113	52	12	9/11/2013	39.5	Q	(a), (b)
	FD-091113-01			9/11/2013	27.6	Q	
RC-SD-53-001	RC-SD-53-001-092013	53	12	9/20/2013	6.81	Q	(a), (b)
RC-SD-54-001	RC-SD-54-001-092313	54	12	9/23/2013	31.7	Q	(a), (b)

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Railroad Round House Removal Action
Former Fort Devens

					Total Arsenic		
Location ID	**Sample ID**	**Grid Number**	**Sampling Depth (Inches)**	**Date**	**Sediment (mg/kg)**	**Qualifier**	**Note**
Cleanup Criteria					**270 mg/kg**		
RC-SD-55-001	RC-SD-55-001-091713	55	12	9/17/2013	29.2	Q	(a), (b)
RC-SD-56-001	RC-SD-56-001-092413	56	12	9/24/2013	5.56	Q	(a), (b)
RC-SD-57-001	RC-SD-57-001-092413	57	12	9/24/2013	22.4	Q	(a), (b)
RC-SD-58-001	RC-SD-58-001-092413	58	12	9/24/2013	32.9	Q	(a), (b)
RC-SD-59-001	RC-SD-59-001-092413	59	12	9/24/2013	7.39	Q	(a), (b)
RC-SD-60-001	RC-SD-60-001-092413	60	12	9/24/2013	12.5	Q	(a), (b)
	Sample ID			**Date**	**Units: ug/L**	**Qualifier**	
EQUIPMENT BLANK	EB-091113-02			9/11/2013	<0.5000	Q	
	EB-091213-01			9/12/2013	0.1361	JQ	
	EB-091313-01			9/13/2013	<0.5000	Q	
	EB-091713-01			9/17/2013	0.1975	JQ	
	EB-091813-01			9/18/2013	0.1371	JQ	
	EB-091913-01			9/19/2013	0.1277	JQ	
	EB-092013-01			9/20/2013	<0.5000	Q	
	EB-092313-01			9/23/2013	<0.5000	Q	
	EB-092413-01			9/24/2013	<0.5000	Q	
	EB-092513-01			9/25/2013	0.1279	JQ	
	EB-100213-01			10/2/2013	0.2095	JQ	
	EB-100313-01			10/3/2013	0.1211	JQ	
	EB-100413-001			10/4/2013	0.1907	JQ	
	EB-100713-01			10/7/2013	0.0909	JQ	
	EB-100813-01			10/8/2013	0.3270	JB	

Notes:

Qualifier 'J' :- Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

Qualifier 'Q' :- The quality control sample exceeds the associated acceptance criteria.
Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

Qualifier 'B' :- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJAir-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

BOLD Indicates detections above applicable standard

(a) - Samples used to calculate the average. Among the original sample and its duplicate, sample with higher concenration is considered for the calculation.

(b) - Samples used for ProUCL calculations.

TABLE 3
ProUCL OUTPUT
RED COVE DATA - TOTAL ARSENIC
PLOW SHOP POND

	General UCL Statistics for Full Data Sets		
User Selected Options			
From File	C:\Documents and Settings\sjanga\Desktop\ProUCL Datafiles\TO5\As Sediment Input.wst		
Full Precision	OFF		
Confidence Coefficient	95%		
Number of Bootstrap Operations	2000		
Sed Arsenic			
General Statistics			
Number of Valid Observations	60	Number of Distinct Observations	56
Raw Statistics		**Log-transformed Statistics**	
Minimum	5.56	Minimum of Log Data	1.716
Maximum	664	Maximum of Log Data	6.498
Mean	169.2	Mean of log Data	4.679
Median	131.5	SD of log Data	1.108
SD	150.1		
Std. Error of Mean	19.37		
Coefficient of Variation	0.887		
Skewness	1.665		
Relevant UCL Statistics			
Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.16	Lilliefors Test Statistic	0.138
Lilliefors Critical Value	0.114	Lilliefors Critical Value	0.114
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	201.6	95% H-UCL	286.7
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	344.2
95% Adjusted-CLT UCL (Chen-1995)	205.6	97.5% Chebyshev (MVUE) UCL	408.5
95% Modified-t UCL (Johnson-1978)	202.3	99% Chebyshev (MVUE) UCL	534.7
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	1.194	**Data appear Gamma Distributed at 5% Significance Level**	
Theta Star	141.8		
MLE of Mean	169.2		
MLE of Standard Deviation	154.9		
nu star	143.2		
Approximate Chi Square Value (.05)	116.6	**Nonparametric Statistics**	
Adjusted Level of Significance	0.046	95% CLT UCL	201.1
Adjusted Chi Square Value	116	95% Jackknife UCL	201.6
		95% Standard Bootstrap UCL	199.8
Anderson-Darling Test Statistic	0.455	95% Bootstrap-t UCL	208
Anderson-Darling 5% Critical Value	0.774	95% Hall's Bootstrap UCL	208.3
Kolmogorov-Smirnov Test Statistic	0.0762	95% Percentile Bootstrap UCL	202.1
Kolmogorov-Smirnov 5% Critical Value	0.117	95% BCA Bootstrap UCL	207.6

TABLE 3
ProUCL OUTPUT
RED COVE DATA - TOTAL ARSENIC
PLOW SHOP POND

Data appear Gamma Distributed at 5% Significance Level						95% Chebyshev(Mean, Sd) UCL	253.7
						97.5% Chebyshev(Mean, Sd) UCL	290.2
Assuming Gamma Distribution						99% Chebyshev(Mean, Sd) UCL	362
95% Approximate Gamma UCL	207.9						
95% Adjusted Gamma UCL	209						
Potential UCL to Use						Use 95% Approximate Gamma UCL	207.9
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)							
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.							

TABLE 4
SUMMARY OF RAILROAD ROUND HOUSE SEDIMENT DATA - TOTAL ANTIMONY
PLOW SHOP POND

				Total Antimony	
Location ID	**Sample ID**	**Date**	**Sediment Description**	**Sediment (mg/kg)**	**Qualifier**
Cleanup Criteria				**4.6 mg/kg**	
SA71-SD-01-001	SA71-SD-01-001-082613	8/29/2013	Saturated, gray, organic material. Some f-sand. Little c-sand and f-gravel. Slight sheen.	**6.16**	
	SA71-SD-01-002-091013	9/10/2013	Saturated, brown, peat, lots of organic material. Some silt.	1.56	Q
SA71-SD-02-001	SA-71-SD-02-001-082813	8/28/2013	Saturated, gray, organic material. Lots of f-sand, some c-sand, little f-gracvel. Slight sheen.	4.53	Q
SA71-SD-03-001	SA-71-SD-03-001-082813	8/28/2013	Saturated, gray, organic material. Lots of f-sand, some c-sand, little f-gracvel. Slight sheen.	**5.98**	Q
	SA71-SD-03-002-091013	9/10/2013	Saturated, brown, organic material and peat. Some silt.	0.602	Q
SA71-SD-04-001	SA-71-SD-04-001-082813	8/28/2013	Saturated, gray, organic material. Lots of f-sand, some c-sand, little f-gracvel. Slight sheen. Some peat.	**5.95**	Q
	SA-71-SD-04-002-090613	9/6/2013	Saturated, gray, organic material. Some f-sand and silt.	**7.81**	Q
SA71-SD-05-001	SA-71-SD-05-001-082813	8/28/2013	Saturated, gray, organic material. Lots of f-sand, some c-sand, little f-gracvel. Slight sheen. Some peat.	**5.59**	Q
	SA-71-SD-05-002-090613	9/6/2013	Saturated, gray, organic material. Some f-sand and silt.	**6.93**	Q
	FD-090613-01	9/6/2013		**6.10**	Q
SA71-SD-06-001	SA-71-SD-06-001-082813	8/28/2013	Saturated, gray, organic material. Lots of f-sand, some c-sand, little f-gracvel. Slight sheen.	**6.37**	Q
	SA-71-SD-06-002-090613	9/6/2013	Gray, brown, organic material. Wet-saturated. Some f-sand and silt. Lots of gray coal ash. Removed from grid.	3.08	Q
SA71-SD-07-001	SA-71-SD-07-001-082813	8/28/2013	Saturated, gray, organic material. Lots of f-sand, some c-sand, little f-gracvel. Slight sheen.	**6.05**	Q
	SA-71-SD-07-002-091113	9/11/2013	Saturated, dark, brown, organic material. Little f-sand and silt. Some gray sludge.	0.985	Q
SA71-SD-08-001	SA71-SD-08-001-082613	8/26/2013	Saturated, gray, organic material. Lots of f-sand, some c-sand, little f-gravel. Slight sheen.	2.81	
SA71-SD-09-001	SA71-SD-09-001-082613	8/26/2013	Saturated, gray, organic material. Lots of f-sand, some c-sand, little f-gravel. Sliglht sheen.	2.36	
	FD-082613	8/26/2013		2.39	
SA71-SD-10-001	SA-71-SD-10-001-083013	8/30/2013	Saturated, gray, organic material. Some f-m sand. Little c-sand. Some brick and f-gravel.	2.89	Q
SA71-SD-11-001	SA-71-SD-11-001-083013	8/30/2013	Saturated, gray, organic materail, lost of c-sand and some f-sand. Little f-gravel.	**10.1**	Q
	SA71-SD-11-002-091013	9/10/2013	Saturated, brown, organic material and peat. Lots of brick and coal/gravel removed from location.	**50.8**	Q
	SA-71-SD-11-003-091913	9/19/2013	Wet, dark, brown/black, peat, organic material. Some coal ash. Some f-m sand.	**5.81**	Q
	FD-091913-02	9/19/2013		4.50	Q
SA71-SD-12-001	SA-71-SD-12-001-082813	8/28/2013	Saturated, gray, organic material. Lots of f-sand, some c-sand, little f-gracvel. Slight sheen.	3.23	Q

TABLE 4
SUMMARY OF RAILROAD ROUND HOUSE SEDIMENT DATA - TOTAL ANTIMONY
PLOW SHOP POND

				Total Antimony	
Location ID	**Sample ID**	**Date**	**Sediment Description**	**Sediment (mg/kg)**	**Qualifier**
Cleanup Criteria				**4.6 mg/kg**	
SA71-SD-13-001	SA-71-SD-13-001-082813	8/28/2013	Saturated, gray, organic material. Some m-c sand. Little f-sand. Some brick and glass.	**10.4**	Q
	FD-082813-01	8/28/2013		**8.25**	Q
	SA71-SD-13-002-091013	9/10/2013	Saturated, brown, organic material and peat. Some silt.	1.62	Q
	FD-091013-01	9/10/2013		2.43	Q
SA71-SD-14-001	SA-71-SD-14-001-082813	8/28/2013	Saturated organic material. Gray black. Some f-m sand. Little coal ash. Some c-sand and brick.	**6.66**	Q
	SA-71-SD-14-002-090613	9/6/2013	Gray, brown, organic material. Wet-saturated. Some f-sand and silt. Lots of gray coal ash. Removed from grid.	**7.52**	Q
SA71-SD-15-001	SA-71-SD-15-001-082813	8/28/2013	Saturated organic material. Some m-c sand. Little peat. Many coal ash. Gray black.	**8.28**	Q
	SA-71-SD-15-002-090613	9/6/2013	Gray, brown, organic material. Wet-saturated. Some f-sand and silt. Lots of gray coal ash. Removed from grid.	2.89	
SA71-SD-16-001	SA-71-SD-16-001-083013	8/30/2013	Saturated, black, organic material. Some m-sand, some c-sand, little bit of gravel.	2.04	Q
	FD-083013-01	8/30/2013		3.14	Q
SA71-SD-17-001	SA-71-SD-17-001-083013	8/30/2013	Saturated, black, organic material. Some m-sand, some c-sand, little bit of gravel.	1.18	Q
SA71-SD-18-001	SA71-SD-18-001-082613	8/26/2013	Moist, gray f-m sand, some c-sand and f-gravel. Trace coal.	0.702	
SA71-SD-19-001	SA-71-SD-19-001-100913	10/9/2013	Brown to black f-m sand. Organic, peat, bricks, little coal ash.	**6.22**	
SA71-SD-20-001	SA-71-SD-20-001-100913	10/9/2013	Wet m-c sand, lots of coal ash. Little f-sand, some gravel (m-l). Some brick and glass.	**46.30**	
	SA-71-SD-20-001-100913	10/9/2013		**11.00**	
	SA71-SD-20-002-101113	10/11/2013	Black, wet, m-sand and f-gravel, and coal/coal ash/debris. No peat observed.	**11.0**	
	FD-101113-01	10/11/2013		**22.9**	
SA71-SD-21-001	SA-71-SD-21-001-100913	10//9/13	Wet m-c sand, lots of coal ash. Little f-sand, some gravel (m-l). Some brick and glass.	**7.88**	
SA71-SD-22-001	SA71-SD-22-001-100413	10/4/2013		**5.98**	
	SA-71-SD-22-002-100913	10/9/2013	Wet m-c sand, lots of coal ash. Little f-sand, some gravel (m-l). Some brick and glass.	**6.04**	
SA71-SD-23-001	SA71-SD-23-001-100413	10/4/2013		2.64	
	SA-71-SD-23-002-100913	10/9/2013	Wet m-c sand, lots of coal ash. Little f-sand, some gravel (m-l). Some brick and glass.	3.41	
SA71-SD-24-001	SA-71-SD-24-001-100913	10//9/13	Wet m-c sand, lots of coal ash. Little f-sand, some gravel (m-l).	1.70	
	FD-100913-01	10/9/2013		1.20	

TABLE 4
SUMMARY OF RAILROAD ROUND HOUSE SEDIMENT DATA - TOTAL ANTIMONY
PLOW SHOP POND

				Total Antimony	
Location ID	**Sample ID**	**Date**	**Sediment Description**	**Sediment (mg/kg)**	**Qualifier**
Cleanup Criteria				**4.6 mg/kg**	
	Sample ID	**Date**		**Units: ug/L**	**Qualifier**
EQUIPMENT BLANK	EB-082613-01	8/26/2013		0.36	J
	EB-082813-01	8/28/2013		0.1394	JQ
	EB-082913-01	8/29/2013		0.1104	JQ
	EB-083013-01	8/30/2013		0.2620	JB
	EB-090613-01	9/6/2013		0.1054	JQ
	EB-091013-01	9/10/2013		0.1590	JQ
	EB-091113-01	9/11/2013		0.1336	JQ
	EB-091913-02	9/19/2013		<0.5000	Q
	EB-100413-001	10/4/2013		0.119	J
	EB-100913-01	10/9/2013		<0.5000	
	EB-101113-01	10/11/2013		0.124	J

Notes:

Qualifier 'J' :- Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

Qualifier 'Q' :- The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

BOLD Indicates detections above applicable standard

APPENDIX A

MANHESP Letter

(See CD Included Separately)

APPENDIX B

Wetland Delineation Report for Plow Shop Pond

(See CD Included Separately)

APPENDIX C

Surface Water Monitoring Forms

(See CD Included Separately)

APPENDIX D

Red Cove Confirmation Sampling Analytical Data

(See CD Included Separately)

APPENDIX E

Round House Confirmation Sampling Analytical Data

(See CD Included Separately)

APPENDIXF

Waste Characterization Analytical Data

(See CD Included Separately)

APPENDIX G

Staging Area Analytical Data

(See CD Included Separately)

APPENDIX H

Bill of Ladings

(See CD Included Separately)

APPENDIX I

Daily Quality Control Reports

(See CD Included Separately)

APPENDIX J

Data Validation Reports

(See CD Included Separately)

APPENDIX K

Response to Comments

(See CD Included Separately)

APPENDIX A

MANHESP Letter

(See CD Included Separately)

Commonwealth of Massachusetts

Division of Fisheries & Wildlife

MassWildlife

Wayne F. MacCallum, *Director*

June 3, 2013

Scott E. Acone, Chief, Engineering/Planning Division
United States Department of the Army
New England District, Corps of Engineers
Attention: Michael Penko, Environmental Resources Section and Ellen Iorio, Project Manager
696 Virginia Road
Concord, Massachusetts 01742

Project Name:	*Removal Action Work Plan for Contaminated Sediment in Plow Shop Pond*
Proponent:	*United States Army Corps of Engineers*
Location:	*Plow Shop Pond, Devens*
NHESP Tracking No.:	*12-31152*

Dear Mr. Acone:

The Natural Heritage & Endangered Species Program of the MA Division of Fisheries and Wildlife (the "Division") has received and reviewed the revised Removal Action Work Plan (dated March 2013, received May 20, 2013) for the proposed removal of contaminated sediments and construction of a belowground barrier wall, and would like to offer the following comments.

Based on a review of the revised information, the Division's previous comments do not change (Division letter dated 10/16/2012); we continues to anticipate that the proposed project will not result in a prohibited "take" of state-listed species . It is our understanding that the project will conform to the following conditions, designed to avoid and minimize impacts to state-listed species:

1. In order to avoid long-term impacts to state-listed species and their habitats, project plans for each phase of the project will be modified to include a restoration plan for any upland areas to be disturbed by the proposed work. Restoration of upland areas will include revegetation with warm season grasses so as to provide high-quality habitat for Upland Sandpiper and Grasshopper Sparrow. The Division requests that, prior to the start of work on each phase of the project, a restoration plan be submitted to the Division for review.

2. In order to inform and improve restoration plans for Phases 2 and 3, restoration associated with Phase 1 will also include post-restoration, qualitative vegetation monitoring. The Division requests that a monitoring report be submitted to the Division for review prior to, or in conjunction with, the submission of restoration plans for Phases 2 and 3.

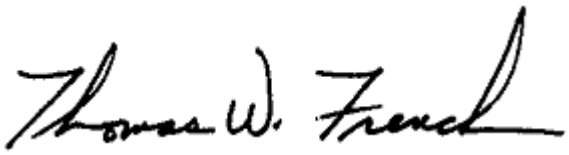
3. All state-listed species observed during project construction, restoration, and monitoring shall be reported to the Division through the submittal of a Rare Plant or Animal Observation Form, including photographs, characters used for identification, observer contact information, and a locus map.

The Division notes that it has reviewed and approved a restoration plan for Phase 1 of the project, as defined in the previous determination, and looks forward to receiving a Phase 1 restoration monitoring report so as to help inform restoration plans for Phases 2 and 3.

Division of Fisheries and Wildlife
Temporary Correspondence: 100 Hartwell Street, Suite 230, West Boylston, MA 01583
Permanent: Field Headquarters, North Drive, Westborough, MA 01581 (508) 389-6300 Fax (508) 389-7890
An Agency of the Department of Fish and Game

If you have any questions about this letter, please contact Jesse Emerson Leddick, Endangered Species Review Biologist, at jesse.leddick@state.ma.us or 508-389-6386. We appreciate the opportunity to comment on this project.

Sincerely,



Thomas W. French, Ph.D.
Assistant Director

cc: Town of Ayer Conservation Commission

Commonwealth of Massachusetts

Division of Fisheries & Wildlife

MassWildlife

Wayne F. MacCallum, *Director*

Procedure for Contacting the Division When a Fish Kill Has Been Reported

When you receive a call about dead fish, **regardless of the circumstances**, follow these procedures for contacting the Division of Fisheries & Wildlife, the lead agency for coordinating fish kill response:

- Get the name and phone number of an actual witness to the fish kill
- Call the Fish Kill Coordinator, Richard Hartley at: office (508) 389-6330 or cell (508) 479-4092. If the Fish Kill Coordinator is unavailable, leave a message including the name and number of the witness and the location of the fish kill.
- From April 1st through October 1st, **Concurrent with contacting the Fish Kill Coordinator**, call the Fish Kill cell phone at (508) 450-5869.
- If you do not hear back from the Fish Kill Coordinator or the Fisheries Biologist on call within ½ hour, call the Department of Environmental Law Enforcement Radio Room which is staffed 24/7 at 1-800-632-8075.
- Outside of the standby time period (October 2nd through March 31st), if a fish kill report is received outside of normal working hours, 8:00-4:30 or on a weekend or holiday, leave a message on the Fish Kill Coordinator's work phone and cell phone. If you do not hear back from the Fish Kill Coordinator within ½ hour, call the Environmental Law Enforcement Radio Room at 1-800-632-8075.
- **All media inquiries must be forwarded to Reginald Zimmerman at (617) 626-1052**

APPENDIX B

Wetland Delineation Report for Plow Shop Pond

(See CD Included Separately)

SOVEREIGN CONSULTING INC.

May 31, 2012

TRANSMITTED VIA ELECTRONIC MAIL

Michael Penko
USACE New England District
696 Virginia Road
Concord, MA 01742-2751

Re: Wetland Delineation Report for Plow Shop Pond, Former Fort Devens Army Installation, Devens, MA
Contract #W912WJ-10-D-0003 Task Order 0005

Dear Mr. Penko:

Sovereign Consulting Inc. (Sovereign) is pleased to present this Wetland Delineation Report to the US Army Corps of Engineers (USACE) for the proposed Removal Actions at Plow Shop Pond at the Former Fort Devens Army Installation in Devens, Massachusetts.

If you have any questions regarding this submittal, please feel free to contact the undersigned at 508-339-3200.

Sincerely,
SOVEREIGN CONSULTING INC.

Laura Simkins
Project Ecologist

Ellyn Brixius
Senior Ecologist

Attachments: Wetland Delineation Report

cc: Sovereign File – AC001.005

WETLAND DELINEATION REPORT

FOR PLOW SHOP POND

AREA OF CONTAMINATION (AOC) 72

FORMER FORT DEVENS ARMY INSTALLATION, DEVENS, MA

31 MAY 2012

Prepared for:

US Army Corps of Engineers

New England District

Concord, Massachusetts

Prepared by:

Sovereign Consulting Inc.

Contract No.: W912WJ-10-D-0003

Delivery Order: 0005

SOVEREIGN CONSULTING INC.

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Figure 2 Local Soil Map
Figure 3 Wetland Boundary Map – Plow Shop Pond
Figure 4 Wetland Boundary Map – Railroad Roundhouse
Figure 5 Wetland Boundary Map – Red Cove

List of Attachments

Attachment A Wetland Determination Data Forms
Attachment B Photographic Log

1.0 PROJECT DESCRIPTION

Sovereign Consulting Inc. (Sovereign) prepared this *Wetland Delineation Report* on behalf of the U.S. Army Corps of Engineers, New England District (USACE), for wetlands in the vicinity of Red Cove and the former Railroad Roundhouse area of Plow Shop Pond in Ayer, Massachusetts. The purposes of the activities described herein were to ascertain whether jurisdictional freshwater wetlands exist within areas of proposed disturbance associated with the planned Non-Time-Critical Removal Actions (NTCRAs) at Red Cove and Railroad Roundhouse (including site access), and if so, to delineate the wetland extent.

2.0 SITE AND BACKGROUND INFORMATION

2.1 Site Description

The 30-acre Plow Shop Pond is located northeast of Shepley's Hill Landfill (SHL), south of Molumco Industrial Park, and west of Grove Pond. The Red Cove area is located in the southwest corner of Plow Shop Pond along the northeast perimeter of SHL. The Railroad Roundhouse, also referred to as SA 71, is located at the southeast corner of Plow Shop Pond (**Figure 1).**

2.2 Area of Contamination (AOC) 72 History

Plow Shop Pond is a man-made pond created during the late 1800s by the damming of Nonacoicus Brook. SHL to the west of Plow Shop Pond was reportedly operating by the early 1940s and evidence from test pits within the landfill suggests earlier usage, possibly as early as the mid-nineteenth century. The landfill was capped in 1993 and contains a variety of waste materials, including incinerator ash, demolition debris, asbestos, sanitary wastes, spent shell casings, glass, and other wastes. Elevated groundwater arsenic concentrations at SHL have subsequently impacted the Red Cove area of Plow Shop Pond which is located downgradient of and in close proximity to the northern portion of the landfill. Red Cove is a shallow cove with a water depth of less than one meter. Total sediment thickness in Red Cove is between 0-2 meters.

The Railroad Roundhouse at the southeast corner of Plow Shop Pond, is the former location of a roundhouse operated by the Boston and Maine Railroad from approximately 1900 to 1935. The site consists of a 200 to 300 foot (ft) wide strip of land extending south from Plow Shop Pond along the northeast boundary of Devens for approximately 1,100 feet (**Figure 1**). Historical features included an array of railroad tracks, a coal trestle, ash pit, water tower, and several buildings. The roundhouse was located at the northern end of this strip, immediately adjacent to the southern shore of Plow Shop Pond. The shoreline adjacent to the railroad roundhouse was used as a dumping area for locomotive maintenance by-products. Available maps and aerial photographs indicate that all of the buildings except a brick storeroom and the water tower were removed by 1942.

2.3 Soil Survey

According to the US Department of Agriculture, Natural Resources Conservation Service (NRCS), the mapped soil unit found within the study area is:

- Carver loamy coarse sand , 8-15 percent slopes (259C)

Figure 2 is a Local Soil Map based on soil Geographic Information Systems (GIS) data set published for Middlesex County, Massachusetts. Carver loamy coarse sand is not listed on the NRCS National Hydric Soil List for Middlesex County, Massachusetts.

3.0 FIELD METHODOLOGY

Between 16 and 23 May 2012, Sovereign performed a wetland delineation that included routine assessments of vegetation, hydrology, and soil conditions along proposed removal areas and access points to work areas (**Figure 3**).

Wetland delineation procedures followed the "routine method" outlined in the Corps 1987 Wetlands Delineation Manual, as modified by U.S. Army Corps of Engineers Interim *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (2009)*. As discussed in the Northcentral and Northeast Regional Supplement, Ayer, Massachusetts is located in the Land Resource Region – R, Northeastern Forests. The applicable wetland determination data forms used during the wetland delineation are attached in **Attachment A;** photographs of the site are presented in **Attachment B.**

The standards and regulations established in the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00) were reviewed prior to the site delineation. The methodologies described within the Massachusetts Wetland Protection Act differ slightly from the USACE methodology. As such, the procedure for wetland delineation described in the Massachusetts document *Delineating Bordering Vegetated Wetlands* also was utilized during the May 2012 field investigation. Both the USACE and Massachusetts method delineations established the same wetland line (i.e. the USACE and Massachusetts lines did not diverge); therefore, there was no necessity to flag/delineate two separate wetland lines. A 100 ft Buffer Zone measured from the delineation line, as shown on **Figure 3**, is subject to protection under Massachusetts Regulations (310 CMR 10.02(1)(b)).

4.0 RESULTS

During the preliminary walk-over, evidence of previous disturbance at the Railroad Roundhouse portion of the study area was abundant. Past site activities were apparent, including historical construction of the railroad to the east and associated site development, a restored area where a previous removal action and fill application took place, and drainage efforts from SHL. The remaining portions of the study area, including Red Cove, appeared to be largely undisturbed with previous fill applications, drainage efforts, vegetation clearing/maintenance and/or development. Woody growth around the pond has been impacted by beaver, with Railroad Roundhouse being the

most heavily impacted portion of the study area. Plow Shop Pond is fenced along the southwest boundary to prevent access to the property. Although this is a man-made pond with past disturbance areas along the railroad and historical fill material present in some areas, the soil, vegetative communities and hydrology has not been substantially altered in such a way as to impact the extent of the wetland line. Therefore, the wetland delineation was pursued on the basis of *normal* circumstance.

According to the National Wetland Inventory (NWI), the only listed wetland in the vicinity is the pond itself, categorized as a limnetic wetland (L1UBHh). Field delineation observations concluded that additional wetland areas are present. A thin littoral zone (L2EM2Hh) approximately 0-3 ft in width lies along the pond shore within the study area. This zone is dominated by unidentified submerged aquatic vegetation (SAV) and emergent vegetation such as *Peltandra virginica* (green arrow arum). In addition, thin wetland areas lie within the floodplain and/or capillary fringe of the pond. These wetlands vary in width depending on the grade of the topography from the water's edge. Wetland A was defined as palustrine forested/scrub-shrub (PFO1Eb/PSS1Eb) wetland, most prevalent along the capillary fringe of the pond within primarily mixed hardwood and pine forested areas. Wetland A was present within the majority of the study area including Red Cove. Wetland B was defined as palustrine emergent/scrub-shrub (PEM1E/PSS1Eb) wetland primarily in the Railroad Roundhouse area where a past removal action occurred and the area has been restored.

As indicated by review of **Attachment 1**, five of six comprehensive wetland data plots - Wetland Data Plots 2 through 6 - exhibited co-occurrence of the three parameters that define jurisdictional wetlands (Wetland Data Plot 1 contained bricks and other fill material in soils and soil boring data was unavailable).

The soil profiles of the wetland test pits confirmed the presence of hydric soils within the boundary of the mapped soil units which are listed as non-hydric soils in Middlesex County, Massachusetts. Thus, the presence of standing water in the pond and flood zone areas adjacent to the top of bank have created hydric soil conditions over time. Further, the upland soil profiles within the same mapped soil units were evaluated and found to exhibit a distinct variation in value and chroma in comparison to the wetland soil profiles. The hydric soil profiles in the wetland test pits in combination with prominent wetland vegetation and hydrology indicators confirmed the data plots were within the wetland boundaries.

The wetland line was flagged primarily along a rise in topography (which ranged from a gentle slope to a steep incline of several feet) and where hydrophilic vegetation ceased to be dominant. Additionally, observations of plant adaptations such as buttressed tree trunks and shallow roots aided in determining the wetland line. The topographic change and vegetative cues represented the boundary between hydric and non-hydric soil. The six remaining sampling stations (Upland Data Plots 1 through 6) did not exhibit co-occurrence of all wetland indicator parameters and were used to characterize the upland areas adjacent to the wetlands. The delineated wetland line, wetland flag, and plot locations are presented on **Figure 3**, with magnified areas of Railroad Roundhouse on **Figure 4** and Red Cove on **Figure 5**.

Within the Wetland A areas including Red Cove, the topography varied from approximately 1-2 ft above the surface water to 5+ ft above the surface water. The grade of the topography also varied from shallow to steep. In general, the capillary fringe of the pond extended to the top of slope creating a narow wetland area that supported hydrophytic vegetation such as *Alnus rugosa* (specked alder), *Rhododendron canadense* (rhodora), *Cephalanthus occidentalis* (buttonbush), *Acer rubrum* (red maple), *Vaccinium corymbosum* (highbush blueberry), and *Betula populifolia* (gray birch). The soil profile, where available, exhibited grayish brown mineral soils with redoximorphic features. Wetland A is also present on the eastern side of Railroad Roundhouse, however, topography differed due to the railroad embankment. A floodplain was present which expanded the width of the wetland up to the railroad embankment. Within the floodplain, the soil profile contained mucky mineral soil and a high water table. Additional hydrophytic vegetation such as *Impatiens capensis* (jewelweed) and *Typha latifolia* (broadleaf cattail) were present.

The upland above Wetland A areas was characterized as an eastern white pine and oak dominated forest. The forested area exhibited the following general structure:

- Canopy: *Pinus strobus* (eastern white pine), *Quercus rubra* (northern red oak), and *Acer rubrum* (red maple).
- Shrub: *Alnus rugosa* (speckled alder) and *Betula populifolia* (gray birch).
- Herbs/Ground Cover: *Vaccinium angustifolium* (lowbush blueberry), *Kalmia angustifolia* (sheep laurel), *Solidago rugosa (*rough-stemmed goldenrod), and *Maianthemum canadense* (Canada mayflower*).*

The Wetland B area, including the restored area of Railroad Roundhouse, contained low-lying flood zone areas along the pond edge, with increasing slopes outside of the flood zone. The pond edges consisted of layers of primarily well-sorted sandy soils at least 18 inches in depth with a high water column. Vegetation was dominated by *Alnus rugosa* (specked alder), *Rhododendron canadense* (rhodora), *Betula populifolia* (gray birch), and *Onoclea sensibilis* (sensitive fern). The soil profile exhibited grayish brown mineral soils with redoximorphic features.

The upland above the Wetland B area exhibited the following general structure:

- Limited canopy: *Acer rubrum* (red maple).
- Shrub: *Alnus rugosa* (speckled alder) and *Lonicera japonica* (Japanese honeysuckle).
- Herbs/Ground Cover: *Vaccinium angustifolium* (lowbush blueberry), *Andropogon virginicus* (broomsedge bluestem), *Achillea millefolium* (common yarrow), and *Comptonia peregrina* (sweet fern).

A man-made rip-rap drainage swale leading from SHL to the Railroad Roundhouse was created to convey excess stormwater from the surrounding landfill and upland areas to the pond during storm events. The area does not typically contain water and is not considered an ephemeral or intermittent stream. Although the swale contains facultative vegetation such as *Panicum virgatum* (switchgrass), *Populus deltoides* (eastern cottonwood), and *Lonicera japonica* (Japanese honeysuckle) the lack of hydrology and

hydric soil indicators confirms the swale is not a wetland. Therefore, this area was not included in the wetland determination area.

5.0 FINDINGS

Jurisdictional wetland determination is based on co-occurrence of wetland hydrology, hydric soil, and hydrophytic vegetation indicators. Using a detailed, ground-level assessment approach, co-occurring wetland indicator traits were evident along the perimeter of Plow Shop Pond within the study area.

In summary, Plow Shop Pond is a limnetic wetland (L1UBHh) with a narrow, non-persistant littoral zone (L2EM2Hh) along the shoreline. Two types of wetland areas were identified and delineated in the floodplain/capillary fringe of the pond. Wetland A, which encompasses Red Cove, is a palustrine forested/scrub-shrub wetland (PFO1Eb/PSS1Eb). Wetland B is a palustrine emergent/scrub-shrub wetland (PEM1E/PSS1Eb) located only within the Railroad Roundhouse area. The visual survey and foot traverse of the site on 16 through 23 May 2012 indicated that the work zones and a majority of the staging areas (as proposed in Removal Action Work Plan for Contaminated Sediment in Plow Shop Pond) are located within wetland and wetland transition/buffer areas.

6.0 REFERENCES

Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-l, US Army Engineer Waterways Experiment Station, Vicksburg, Miss.

Massachusetts Department of Environmental Protection - Division of Wetlands and Waterways. 1995. *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act - A Handbook*. Boston MA.

Natural Resources Conservation Service, United States Department of Agriculture, U.S. General Soil Map (STATSGO2) GIS Digital Data File. Accessed May 21, 2012.

U.S. Army Corps of Engineers. January 2012. *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-09-19. Vicksburg, MS: U.S. Army Engineer Research and Development Center

Cowardin et al. 1979. Classification of Wetlands and Deepwater Habitats of the United States. National Wetland Inventory, U.S. Fish and Wildlife Service. May 21, 2012.

FIGURES

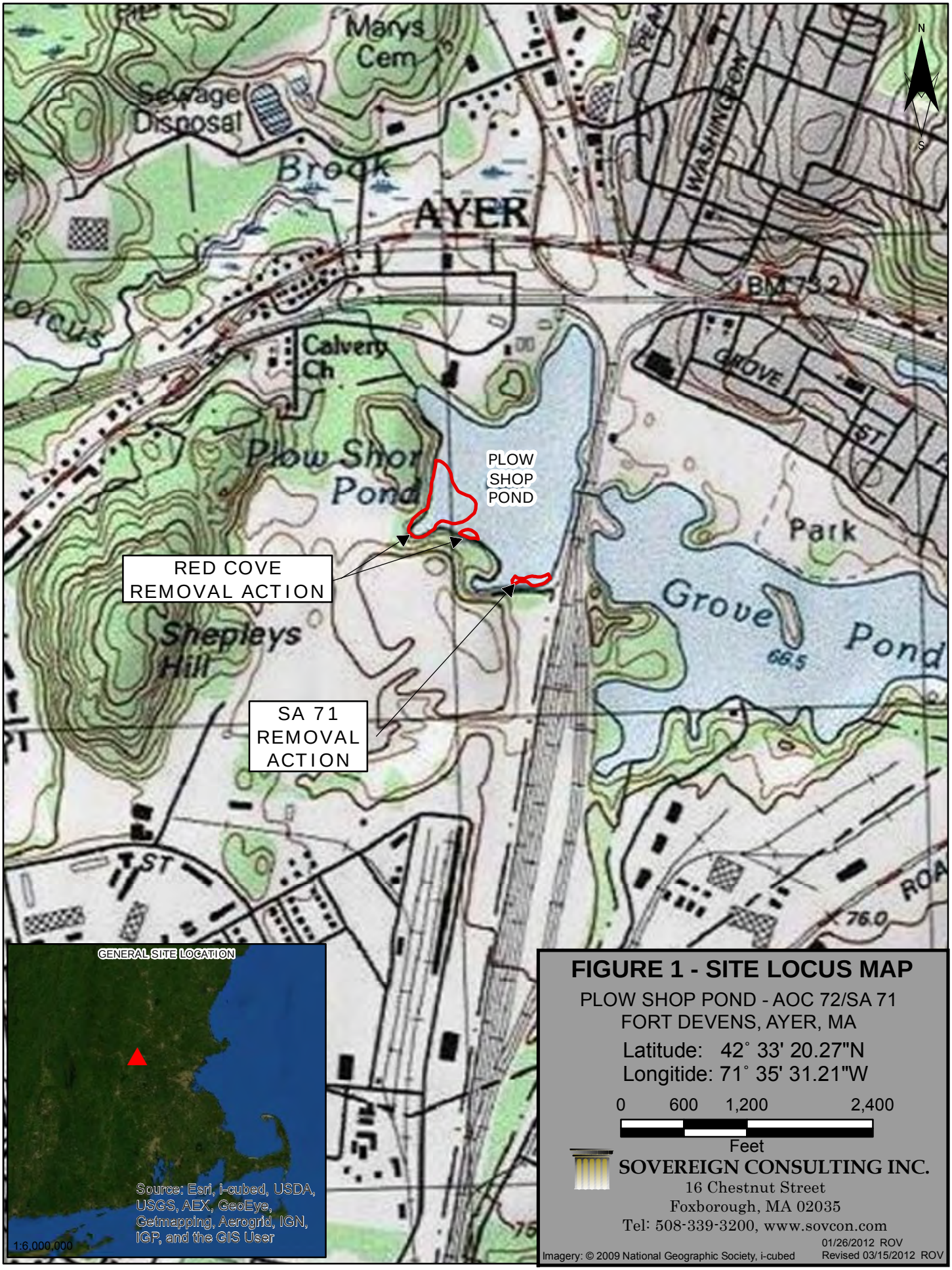

FIGURE 1 - SITE LOCUS MAP

PLOW SHOP POND - AOC 72/SA 71
FORT DEVENS, AYER, MA

Latitude: 42° 33' 20.27"N
Longitide: 71° 35' 31.21"W

0 600 1,200 2,400
Feet

SOVEREIGN CONSULTING INC.
16 Chestnut Street
Foxborough, MA 02035
Tel: 508-339-3200, www.sovcon.com

Imagery: © 2009 National Geographic Society, i-cubed

01/26/2012 ROV
Revised 03/15/2012 ROV

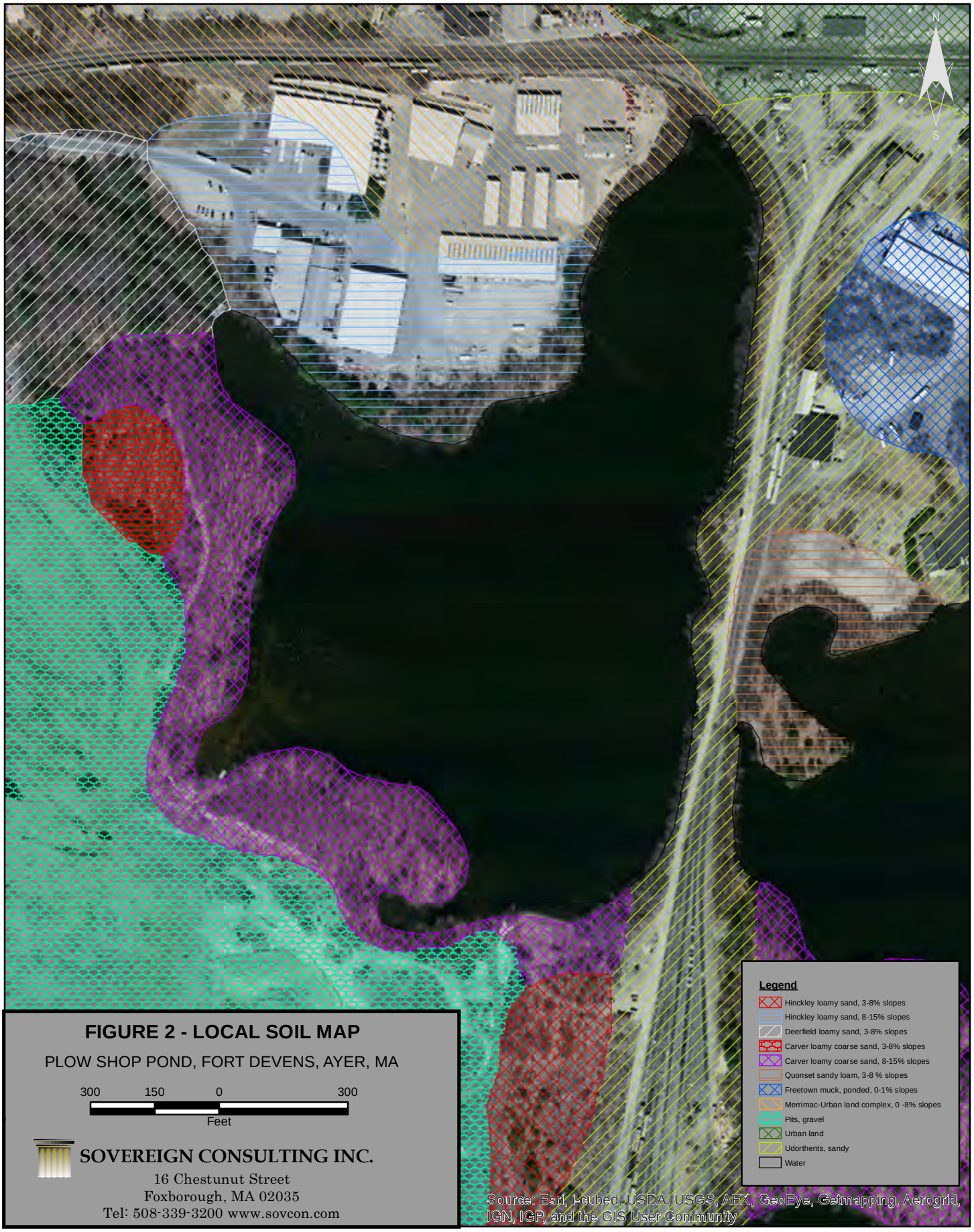

FIGURE 2 - LOCAL SOIL MAP

PLOW SHOP POND, FORT DEVENS, AYER, MA

300 150 0 300

Feet

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Tel: 508-339-3200 www.sovcon.com

NOTES:

1) Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. U.S. General Soil Map (STATSGO2). Available online at http://soildatamart.nrcs.usda.gov . Accessed 05/21/2012

05/21/2012 ROV

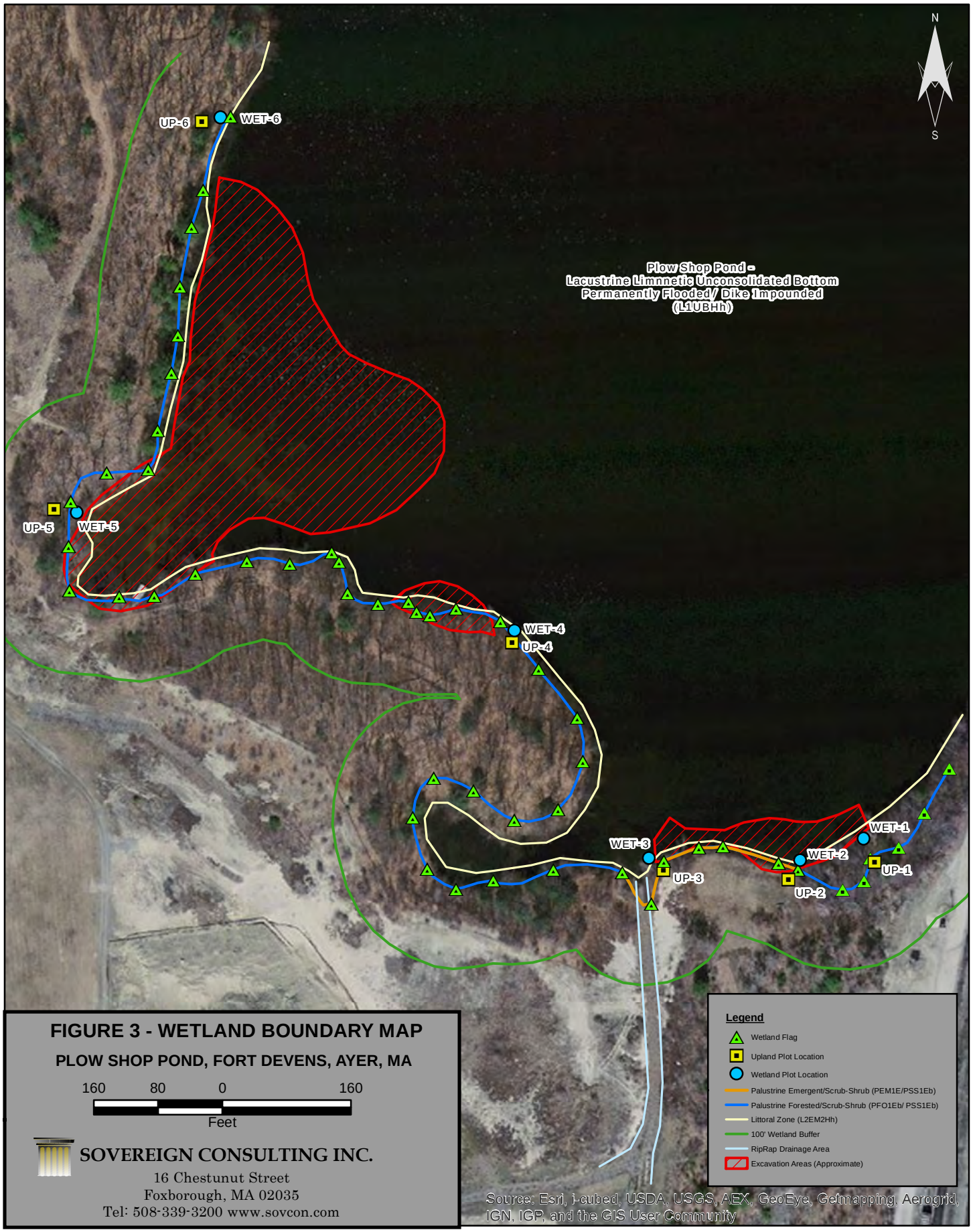

FIGURE 3 - WETLAND BOUNDARY MAP

PLOW SHOP POND, FORT DEVENS, AYER, MA

160 80 0 160

Feet

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NOTES: 1. SOVEREIGN WETLAND DATA (PALUSTRINE EMERGENT/SCRUB SHRUB AND PALUSTRINE FORESTED/SCRUB SHRUB) WERE COLLECTED WITH A GEO EXPLORER® 2008 GEO-XH TRIMBLE UNIT IN MAY 2012. HORIZONTAL ACCURACY IS GENERALLY <1'.
2. THE LACUSTRINE LITTORAL ZONE IS APPROXIMATELY 0-3' FROM THE POND SHORELINE. THIS AREA CANNOT BE PROPERLY SHOWN AT THIS SCALE.
3. WETLAND CODES OBTAINED FROM: 1979. CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. COWARDIN et al.

05/24/2012 ROV
Updated 05/30/2012 ROV

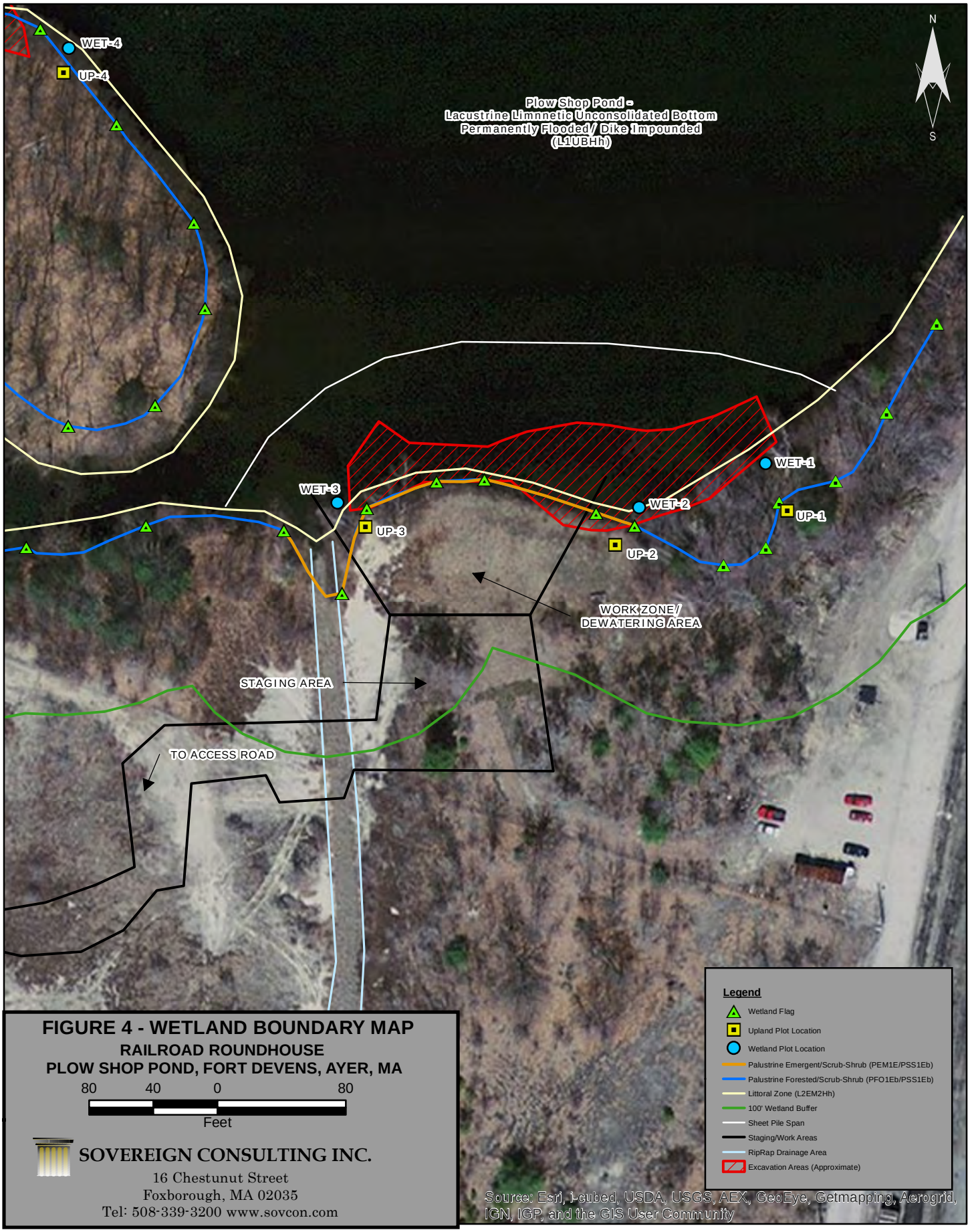

FIGURE 4 - WETLAND BOUNDARY MAP

RAILROAD ROUNDHOUSE
PLOW SHOP POND, FORT DEVENS, AYER, MA

80 40 0 80

Feet

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NOTES: 1. SOVEREIGN WETLAND DATA (PALUSTRINE EMERGENT/SCRUB SHRUB AND PALUSTRINE FORESTED/SCRUB SHRUB) WERE COLLECTED WITH A GEO EXPLORER® 2008 GEO-XH TRIMBLE UNIT IN MAY 2012. HORIZONTAL ACCURACY IS GENERALLY <1'.
2. THE LACUSTRINE LITTORAL ZONE IS APPROXIMATELY 0-3' FROM THE POND SHORELINE. THIS AREA CANNOT BE PROPERLY SHOWN AT THIS SCALE.
3. WETLAND CODES OBTAINED FROM: 1979. CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. COWARDIN et al.

05/24/2012 ROV
Updated 05/30/2012 ROV

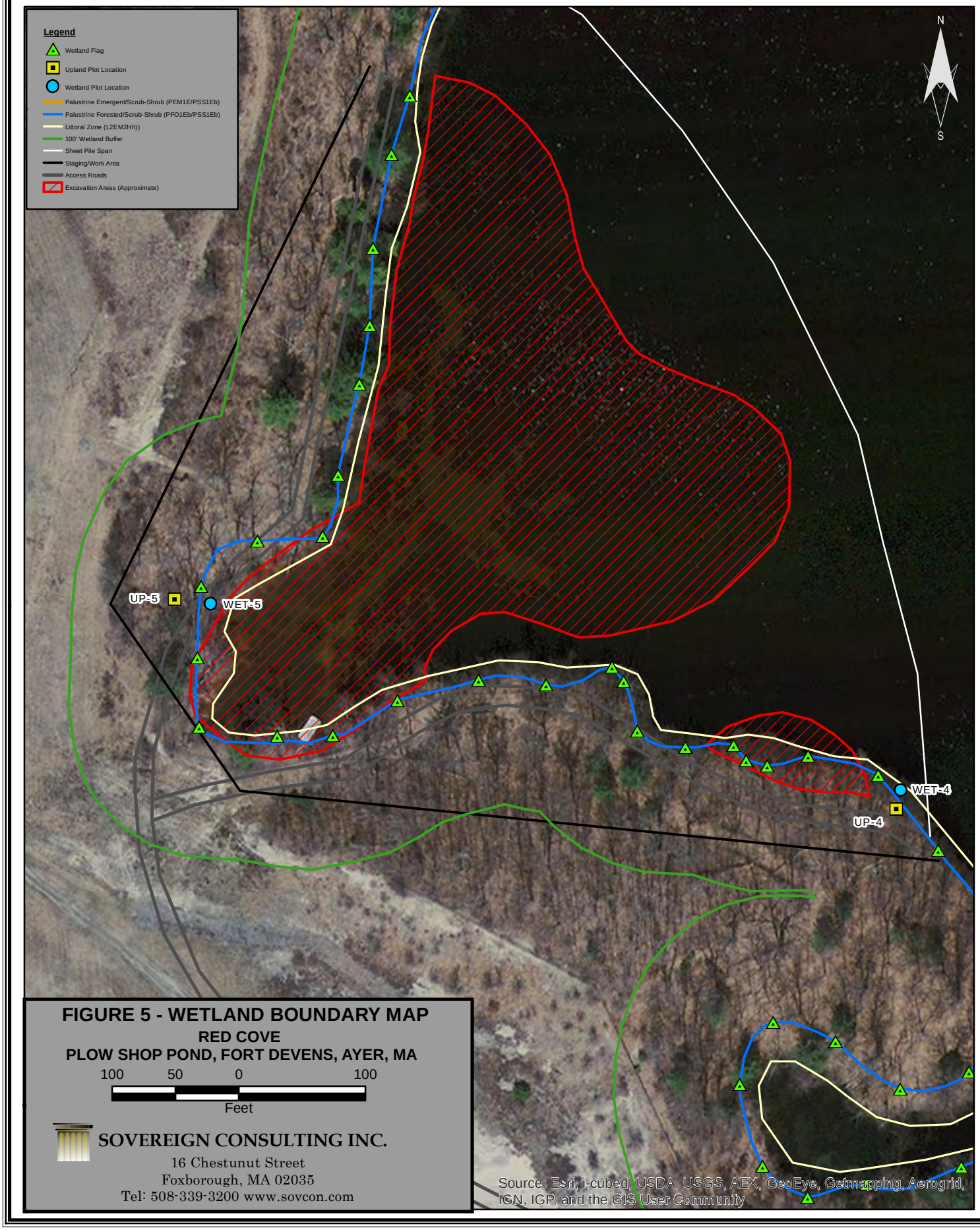

FIGURE 5 - WETLAND BOUNDARY MAP

RED COVE
PLOW SHOP POND, FORT DEVENS, AYER, MA

100 50 0 100

Feet

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NOTES: 1. SOVEREIGN WETLAND DATA (PALUSTRINE EMERGENT/SCRUB SHRUB AND PALUSTRINE FORESTED/SCRUB SHRUB) WERE COLLECTED WITH A GEO EXPLORER® 2008 GEO-XH TRIMBLE UNIT IN MAY 2012. HORIZONTAL ACCURACY IS GENERALLY <1'.
2. THE LACUSTRINE LITTORAL ZONE IS APPROXIMATELY 0-3' FROM THE POND SHORELINE. THIS AREA CANNOT BE PROPERLY SHOWN AT THIS SCALE.
3. WETLAND CODES OBTAINED FROM: 1979. CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. COWARDIN et al.

05/24/2012 ROV
Updated 05/30/2012 ROV

ATTACHMENT A

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-1
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55363118 Long.: -71.59139 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located on a flood plain between the pond and an artificial slope to the east created by the railroad. Plot approx 10 ft from standing water at pond edge. At pond's edge, water is approximately 12" deep.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No		Depth (inches):	12"
Water table present?	Yes	X	No	X	Depth (inches):	6"
Saturation present? (includes capillary fringe)	Yes	X	No	X	Depth (inches):	1"

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located on a flat flood plain, elevated topography to the east causes drainage to the floodplain area. Plot located approx 10 ft from pond edge.

VEGETATION - Use scientific names of plants

Sampling Point: WET-1

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Acer rubrum*	65	Y	FAC
2	*Ulmus americana*	30	Y	FACW
3				
4				
5				
6				
7				
8				
9				
10				
		95	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Alnus rugosa*	10	Y	FACW
2	*Vaccinium corymbosum*	10	Y	FACW
3	*Rhododendron canadense*	10	Y	FACW
4	*Cornus stolonifera*	5	N	FACW
5				
6				
7				
8				
9				
10				
		35	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Impatiens capensis*	25	Y	FACW
2	*Typha latifolia*	20	Y	OBL
3	*Sympalocarpus foetidus*	15	Y	OBL
4	*Osmunda cinnamomea*	15	Y	FACW
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		75	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	19	48
Sapling/Shrub Stratum	7	18
Herb Stratum	15	38
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 9 (A)

Total Number of Dominant Species Across all Strata: 9 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	35	x 1 =	35
FACW species	105	x 2 =	210
FAC species	65	x 3 =	195
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	205 (A)		440 (B)

Prevalence Index = B/A = 2.15

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Sphagnum spp present on soil and downed branches.

SOIL **Sampling Point:** WET-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-3	10YR 2/1							Organic material, wet loamy sand
3-8	10YR 3/1							Saturated, dk brown, m-c mucky mineral sand, tr gravel

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- X Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Soils atypical from mapped soil series unit listing non-hydric soils.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/23/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-1
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55355038 Long.: -71.5913406 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil X, or hydrology X significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Y	**Is the sampled area within a wetland?** N
Hydric soil present? N	
Wetland hydrology present? N	If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located in a reclaimed area that was previously disturbed during the construction of the railroad tracks to the east. Gravel stone/fill material present on the slope. Slope leads gradually down to the flood plain zone adjacent to the water's edge of the pond.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No ____	Depth (inches): ____	**Wetland hydrology present?**	N
Water table present?	Yes ____	No ____	Depth (inches): ____		
Saturation present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____		

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located on a slope leading from the flood plain below to the railroad tracks above. Slope artificially created by the railroad tracks. Slope provides drainage from tracks above to flood plain below.

VEGETATION - Use scientific names of plants

Sampling Point: UP-1

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Quercus bicolor*	50	Y	FACW
2	*Acer rubrum*	50	Y	FAC
3	*Pinus strobus*	10	N	FACU
4				
5				
6				
7				
8				
9				
10				
		110	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Betula populifolia*	5	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
		5	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Solidago rugosa*	50	Y	FACU
2	*Maianthemum canadense*	20	Y	FACU
3	*Rhus typhina*	5	N	FACU
4	*Ranunculus septentrionalis*	2	N	FAC
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		77	= Total Cover	

Woody Vine Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Toxicodendron radicans*	15	Y	FAC
2	*Parthenocissus quinquefolia*	15	Y	FACU
3				
4				
5				
		30	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	22	55
Sapling/Shrub Stratum	1	3
Herb Stratum	15	39
Woody Vine Stratum	6	15

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 7 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 57.14% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	72	x 3 =	216
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column totals	222 (A)		716 (B)

Prevalence Index = B/A = 3.23

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Hydrophytic vegetation present, however, hydrology and soils do not support presence of a wetland.

SOIL **Sampling Point:** UP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-2	10YR 2/1							Organic material
2-12	10YR 2/1							Dry, dk brown, sandy loam

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-2
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55355595 Long.: -71.59168321 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil X, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	N		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located within 5 ft from standing water at pond edge, in a flat flood zone area adjacent to steep bank leading up to railroad tracks. Plot within a forested edge. Fill material (bricks/concrete) present in soils due to past site disturbance. At pond's edge, water is approximately 12" deep.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No	___	Depth (inches):	12"
Water table present?	Yes	___	No	X	Depth (inches):	___
Saturation present? (includes capillary fringe)	Yes	X	No	___	Depth (inches):	~1-2"

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located at base of steep bank, within 5' of pond edge. Water-stained leaves indicate flood zone.

VEGETATION - Use scientific names of plants

Sampling Point: WET-2

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Acer rubrum*	50	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
		50	= Total Cover	

Sapling/Shurb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1	*Rhododendron canadense*	2	Y	FACW
2	*Cephalanthus occidentalis*	2	Y	OBL
3				
4				
5				
6				
7				
8				
9				
10				
		4	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Onoclea sensibilis*	5	Y	FACW
2	*Symplocarpus foetidus*	5	Y	OBL
3	*Impatiens capensis*	5	Y	FACW
4	*Ludwigia palustris*	5	Y	OBL
5	*Typha latifolia*	2	N	OBL
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		22	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	10	25
Sapling/Shrub Stratum	1	2
Herb Stratum	4	11
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across all Strata: 7 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	14	x 1 =	14
FACW species	12	x 2 =	24
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	76 (A)		188 (B)

Prevalence Index = B/A = 2.47

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Sphagnum spp present on rocks and downed branches.

SOIL **Sampling Point:** WET-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

Soil boring data unavailable due to fill material (bricks/concrete) at ~2" bgs in multiple locations within flood zone next to pond. Assumed disturbed soil due to past site operations and presence of adjacent railroad bed. Although soil boring could not be completed, the presence of wetland hydrology and hydrophytic vegetation indicates that the plot is within a wetland.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-2
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55349217 Long.: -71.59173818 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil X, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? N	**Is the sampled area within a wetland?** N
Hydric soil present? N	
Wetland hydrology present? N	If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located upslope from pond, on edge between forest and flat, previously disturbed area. Sandy fill material present in soils due to past site disturbance.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No ____	Depth (inches): ____	**Wetland hydrology present?**	N
Water table present?	Yes ____	No ____	Depth (inches): ____		
Saturation present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____		

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located upslope from pond (approx 10' higher in elevation) on edge of dry, grassy area previously disturbed during past site activities.

VEGETATION - Use scientific names of plants

Sampling Point: UP-2

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Acer rubrum*	10	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
		10	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Lonicera japonica*	25	Y	FACU
2	*Vaccinium angustifolium*	25	Y	FACU
3				
4				
5				
6				
7				
8				
9				
10				
		50	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Solidago spp. >FAC*	20	Y	FACU
2	*Comptonia peregrina*	20	Y	FACU
3	*Andropogon virginicus*	5	N	FACU
4	*Achillea millefolium*	2	N	FACU
5	*Betula populifolia*	2	N	FAC
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		49	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	2	5
Sapling/Shrub Stratum	10	25
Herb Stratum	10	25
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 20.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	12	x 3 =	36
FACU species	97	x 4 =	388
UPL species	0	x 5 =	0
Column totals	109 (A)		424 (B)

Prevalence Index = B/A = 3.89

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** UP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR 3/2							Dry, f-m brown sand, fill material
4-12	5Y 5/4							Dry, f-m brown sand, fill material

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

Highly drained, fine sandy fill material to 12" bgs. Previously disturbed area. Soils atypical from mapped soil series unit listing the presence of course loamy sands.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-3
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55356289 Long.: -71.5923806 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located within 5 ft from standing water at pond edge, in a flat flood zone area adjacent to slope leading up to cleared, previously disturbed area. Plot within a forested edge. At pond's edge, water is approximately 12" deep.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No	____	Depth (inches):	12"
Water table present?	Yes	X	No	____	Depth (inches):	8"
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	4"

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located on a flat flood zone area at base of slope, within 5' of pond edge.

VEGETATION - Use scientific names of plants

Sampling Point: WET-3

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Betula populifolia*	50	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
		50	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Alnus rugosa*	20	Y	FACW
2	*Cephalanthus occidentalis*	2	N	OBL
3				
4				
5				
6				
7				
8				
9				
10				
		22	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Onoclea sensibilis*	10	Y	FACW
2	*Solidago spp.* (assumed *ulignosa)*	10	Y	FAC
3	*Typha latifolia*	2	N	OBL
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		22	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	10	25
Sapling/Shrub Stratum	4	11
Herb Stratum	4	11
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	4	x 1 =	4
FACW species	30	x 2 =	60
FAC species	60	x 3 =	180
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	94 (A)		244 (B)

Prevalence Index = B/A = 2.60

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Sphagnum spp present on rocks and downed branches.

SOIL **Sampling Point:** WET-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-2	10YR 2/1							Organic material
2-6	10YR 4/2		10YR 5/6	10	C			Moist, gray-brown, m sand
6-12	10YR 5/1	50						Moist, gray, m sand
6-12	10YR 6/1	50						Moist, gray, m sand

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Depleted matrix, redox concentrations to 2-6" bgs. Standing water in boring hole at 8" bgs. Soils atypical from mapped soil series unit listing non-hydric soils.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-3
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55352253 Long.: -71.59231691 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil X, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Y	**Is the sampled area within a wetland?** N
Hydric soil present? N	
Wetland hydrology present? N	If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located upslope from pond edge and rip-rap drainage swale on edge of sandy path created by past site disturbance activities. Plot located in a previously cleared area.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No ____	Depth (inches): ____	**Wetland hydrology present?**	N
Water table present?	Yes ____	No ____	Depth (inches): ____		
Saturation present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____		

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located along slope leading up from drainage swale to flat, cleared area above.

VEGETATION - Use scientific names of plants

Sampling Point: UP-3

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Acer rubrum*	10	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
		10	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Alnus rugosa*	20	Y	FACW
2				
3				
4				
5				
6				
7				
8				
9				
10				
		20	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Comptonia peregrina*	50	Y	FACU
2	*Rubus spp.*	10	N	FACU
3	*Quercus prinoides*	10	N	FACU
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		70	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	2	5
Sapling/Shrub Stratum	4	10
Herb Stratum	14	35
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 66.67% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	10	x 3 =	30
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column totals	100 (A)		350 (B)

Prevalence Index = B/A = 3.50

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation

X Dominance test is >50%

___ Prevalence index is ≤3.0*

___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)

___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Hydrophytic vegetation present, however, hydrology and soils do not support presence of a wetland.

SOIL **Sampling Point:** UP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-8	2.5Y 5/4							Dry, m brown sand, fill material
8-12	10YR 4/6							Dry, m brown sand, fill material

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

Highly drained, fine sandy fill material to 12" bgs. Previously disturbed area. Soils atypical from mapped soil series unit listing the presence of course loamy sands.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-4
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55429896 Long.: -71.59301653 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located within a forested scrub-shrub wetland, approx. 3 ft from standing water at pond edge. Due to steepness of slope, unable to complete soil boring at this location - hydric soil assumed due to proximity to standing lake water. At pond's edge, water is approximately 12" deep.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No		Depth (inches):	12"
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):	

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Steep sloped topography from higher ground to water's edge. Plot located at base of slope, within 3 ft of pond edge.

VEGETATION - Use scientific names of plants

Sampling Point: WET-4

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Rhododendron canadense*	30	Y	FACW
2	*Betula populifolia*	10	Y	FAC
3	*Acer rubrum*	10	Y	FAC
4				
5				
6				
7				
8				
9				
10				
		50	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Vaccinium corymbosum*	30	Y	FACW
2	*Betula populifolia*	10	Y	FAC
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		40	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	10	25
Herb Stratum	8	20
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	90 (A)		210 (B)

Prevalence Index = B/A = 2.33

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Sphagnum spp present on soil along bank of pond.

SOIL **Sampling Point:** WET-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Due to steepness of slope, unable to complete soil boring. Assumed hydric soil due to proximity to standing pond water.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-4
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55429896 Long.: -71.59301653 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? N	**Is the sampled area within a wetland?** N
Hydric soil present? N	
Wetland hydrology present? N	If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located adjacent to a forested scrub-shrub wetland boundary, upslope from the pond's edge.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No ____	Depth (inches): ____	**Wetland hydrology present?**	N
Water table present?	Yes ____	No ____	Depth (inches): ____		
Saturation present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____		

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located upslope from the pond's edge on a higher plateau. Topography slopes gently down to pond edge.

VEGETATION - Use scientific names of plants

Sampling Point: UP-4

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Quercus rubra*	50	Y	FACU
2	*Quercus palustris*	20	Y	FACW
3	*Acer rubrum*	10	N	FAC
4				
5				
6				
7				
8				
9				
10				
		80	= Total Cover	

Sapling/Shurb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Vaccinium angustifolium*	50	Y	FACU
2	*Quercus rubra*	5	N	FACU
3	*Betula populifolia*	5	N	FAC
4	*Kalmia angustifolia*	2	N	FAC
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		62	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	16	40
Sapling/Shrub Stratum	0	0
Herb Stratum	12	31
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 33.33% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	17	x 3 =	51
FACU species	105	x 4 =	420
UPL species	0	x 5 =	0
Column totals	142 (A)		511 (B)

Prevalence Index = B/A = 3.60

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** UP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-3	10YR 2/1							Organic material
3-12	10YR 5/6	50						Dry, m brown sand, tr gravel
3-12	10YR 5/4	50						Dry, m brown sand, tr gravel

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-5
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave
Slope (%): 8-15% Lat.: 42.55474221 Long.: -71.59502604 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot at Red Cove. Plot located on a floodplain within a forested scrub-shrub wetland, approx. 10 ft from standing water at pond edge. At pond's edge, water is approximately 12" deep.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):	
Water table present?	Yes	X	No		Depth (inches):	12"
Saturation present? (includes capillary fringe)	Yes	X	No		Depth (inches):	2-3"

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Higher slopes all around drain to floodplain area next to pond's edge.

VEGETATION - Use scientific names of plants

Sampling Point: WET-5

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Acer rubrum*	35	Y	FAC
2	*Quercus rubra*	35	Y	FACU
3				
4				
5				
6				
7				
8				
9				
10				
		70	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Cephalanthus occidentalis*	20	Y	OBL
2	*Viburnum recognitum*	5	Y	FACW
3				
4				
5				
6				
7				
8				
9				
10				
		25	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Thelypteris palustris*	40	Y	FACW
2	*Quercus bicolor*	2	N	FACW
3	*Quercus rubra*	2	N	FACU
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		44	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	14	35
Sapling/Shrub Stratum	5	13
Herb Stratum	9	22
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 80.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	20	x 1 =	20
FACW species	47	x 2 =	94
FAC species	35	x 3 =	105
FACU species	37	x 4 =	148
UPL species	0	x 5 =	0
Column totals	139 (A)		367 (B)

Prevalence Index = B/A = 2.64

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** WET-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-2	10YR 2/1							Organic material
2-5	10YR 5/3		10YR 3/6	20	C			Moist, m gray sand
5-12	10YR 5/1		10YR 3/6	20	C			Moist, m gray sand

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Depleted matrix, redox concentrations to 5-12" bgs. Soil saturated at 2-3" bgs, standing water in the soil boring at 12" bgs. Soils atypical from mapped soil series unit listing non-hydric soils.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-5
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55475194 Long.: -71.59513224 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Y	**Is the sampled area within a wetland?** N
Hydric soil present? N	
Wetland hydrology present? N	If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located adjacent to a forested scrub-shrub wetland boundary, upslope from the pond's edge.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No ____	Depth (inches): ____	
Water table present?	Yes ____	No ____	Depth (inches): ____	
Saturation present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____	

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located upslope from the pond's edge. Topography slopes gently down to floodplain below.

VEGETATION - Use scientific names of plants

Sampling Point: UP-5

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Quercus rubra*	35	Y	FACU
2	*Pinus strobus*	20	Y	FACU
3	*Acer rubrum*	20	Y	FAC
4				
5				
6				
7				
8				
9				
10				
		75	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Alnus rugosa*	10	Y	FACW
2				
3				
4				
5				
6				
7				
8				
9				
10				
		10	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Kalmia angustifolia*	40	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		40	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	15	38
Sapling/Shrub Stratum	2	5
Herb Stratum	8	20
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 60.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	60	x 3 =	180
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column totals	125 (A)		420 (B)

Prevalence Index = B/A = 3.36

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Hydrophytic vegetation present, however, hydrology and soils do not support presence of a wetland.

SOIL **Sampling Point:** UP-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-2	10YR 2/1							Organic material
2-12	10YR 5/3							Dry, m brown sand

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-6
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55609147 Long.: -71.59436444 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located within a forested scrub-shrub wetland, approx. 3 ft from standing water at pond edge. Due to steepness of slope, unable to complete soil boring at this location - hydric soil assumed due to proximity to standing pond water. At pond's edge, water is approximately 12" deep.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No		Depth (inches):	12"
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):	

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Steep sloped topography from higher ground to water's edge. Plot located at base of slope, within 3 ft of pond edge.

VEGETATION - Use scientific names of plants

Sampling Point: WET-6

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Quercus rubra*	30	Y	FACU
2				
3				
4				
5				
6				
7				
8				
9				
10				
		30	= Total Cover	

Sapling/Shurb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Rhododendron canadense*	20	Y	FACW
2	*Vaccinium corymbosum*	10	Y	FACW
3	*Peltandra virginica*	2	N	OBL
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		32	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	6	15
Sapling/Shrub Stratum	0	0
Herb Stratum	6	16
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 66.67% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	2	x 1 =	2
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column totals	62 (A)		182 (B)

Prevalence Index = B/A = 2.94

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Sphagnum spp present on soil along bank of pond.

SOIL **Sampling Point:** WET-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Due to steepness of slope, unable to complete soil boring. Assumed hydric soil due to proximity to standing pond water.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-6
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.5560784 Long.: -71.59445222 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? N	**Is the sampled area within a wetland?** N
Hydric soil present? N	
Wetland hydrology present? N	If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located adjacent to a forested scrub-shrub wetland boundary, upslope from the pond's edge. Slope leads from higher ground down to water's edge of the pond.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No ____	Depth (inches): ____	
Water table present?	Yes ____	No ____	Depth (inches): ____	
Saturation present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____	

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located upslope from pond on a steep slope.

VEGETATION - Use scientific names of plants

Sampling Point: UP-6

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Quercus rubra*	60	Y	FACU
2	*Pinus strobus*	40	Y	FACU
3				
4				
5				
6				
7				
8				
9				
10				
		100	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Hamamelis virginiana*	15	Y	FACU
2				
3				
4				
5				
6				
7				
8				
9				
10				
		15	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Vaccinium angustifolium*	10	Y	FACU
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		10	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	20	50
Sapling/Shrub Stratum	3	8
Herb Stratum	2	5
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	125	x 4 =	500
UPL species	0	x 5 =	0
Column totals	125 (A)		500 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** UP-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-3	10YR 3/2							Organic material
4-6	10YR 5/6							Dry, m brown sand

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

ATTACHMENT B

Photographic Log



Photo #1: #N/A #N/A #N/A

#N/A



Photo #2: Date - 5/23/2012 Direction - West File - DSCN1251

Description - View west along wetland boundary near toe of slope on edge of pond at Railroad Roundhouse.



Photo #3: Date - 5/23/2012 Direction - South File - DSCN1252

Description - View of upland plot 2 (UP-2); wetland continues east and west.



Photo #4: Date - 5/23/2012 Direction - South File - DSCN1254

Description - View south from wetland line (left of frame), showing sandy trail running to the left of drainage rip-rap.



Photo #5: Date - 5/17/2012 Direction - South File - Picture 109

Description - View of rip-rap where the drainage source drains to pond.



Photo #6: Date - 5/17/2012 Direction - Southeast File - Picture 115

Description - Southeast view of unnamed cove west of Railroad Roundhouse.



Photo #7: Date - 5/17/2012 Direction - East File - Picture 138

Description - Wetland plot 4 (WET-4).

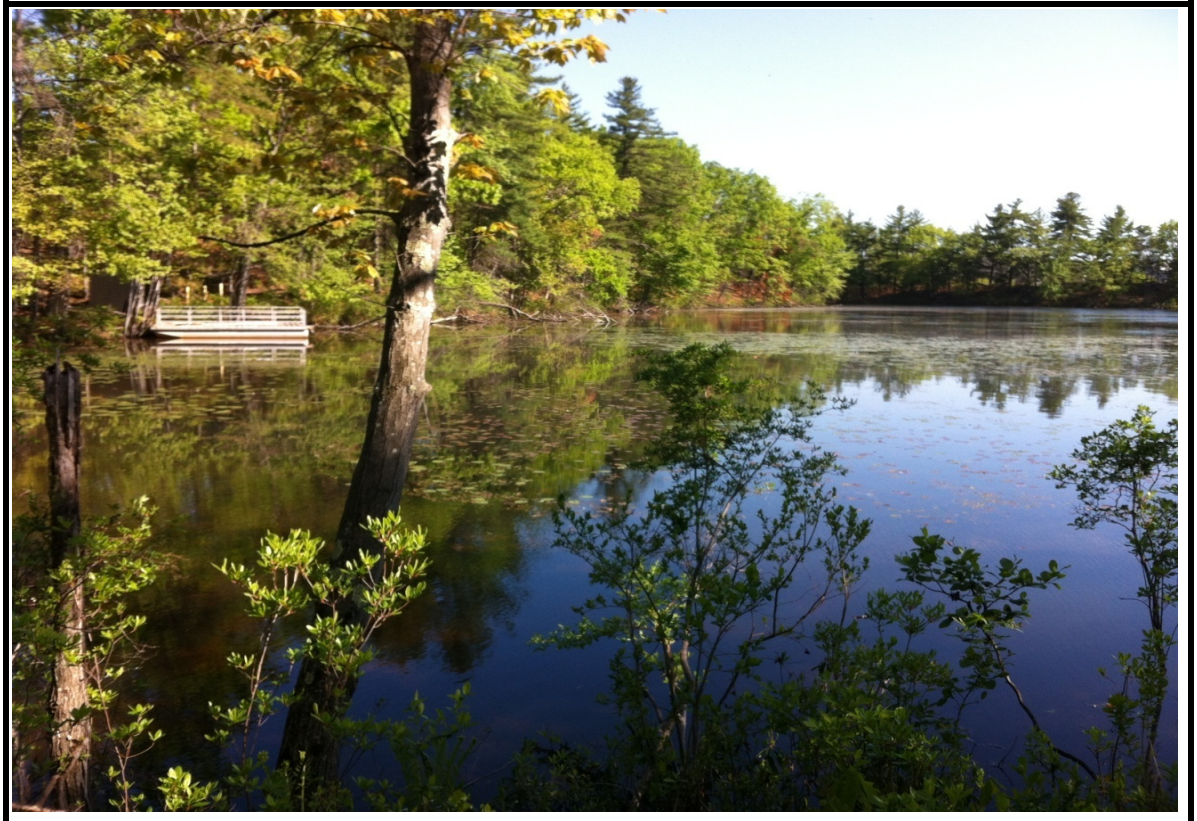

Photo #8: Date - 5/17/2012 Direction - Northeast File - Picture 123

Description - View of Red Cove. Wetland is only in capillary fringe of pond.



Photo #9: Date - 5/17/2012 Direction - Southeast File - Picture 130

Description - Wetland plot 5 (WET-5) at Red Cove.



Photo #10: Date - 5/17/2012 Direction - South File - Picture 132

Description - South view of Red Cove from flagged line.



Photo #11: Date - 5/17/2012 Direction - Northeast File - Picture 136

Description - Northeast view of wetland plot 6 (WET-6).



Photo #12: Date - 5/17/2012 Direction - West File - Picture 137

Description - Upland plot 6 (UP-6).

WETLAND DELINEATION REPORT

FOR PLOW SHOP POND

AREA OF CONTAMINATION (AOC) 72

FORMER FORT DEVENS ARMY INSTALLATION, DEVENS, MA

28 JUNE 2013

Prepared for:

US Army Corps of Engineers

New England District

Concord, Massachusetts

Prepared by:

Sovereign Consulting Inc.

Contract No.: W912WJ-10-D-0003

Delivery Order: 0005

SOVEREIGN CONSULTING INC.

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List of Attachments

Attachment A Wetland Determination Data Forms
Attachment B Photograph Log

1.0 PROJECT DESCRIPTION

Sovereign Consulting Inc. (Sovereign) prepared this *Wetland Delineation Report* on behalf of the U.S. Army Corps of Engineers, New England District (USACE), for wetlands in the vicinity of Red Cove and the former Railroad Roundhouse area of Plow Shop Pond in Ayer, Massachusetts. The purposes of the activities described herein were to ascertain whether jurisdictional freshwater wetlands exist within areas of proposed disturbance associated with the planned Non-Time-Critical Removal Actions (NTCRAs) at Red Cove and Railroad Roundhouse (including site access), and if so, to delineate the wetland extent.

2.0 SITE AND BACKGROUND INFORMATION

2.1 Site Description

The 30-acre Plow Shop Pond is located northeast of Shepley's Hill Landfill (SHL), south of Molumco Industrial Park, and west of Grove Pond. The Red Cove area is located in the southwest corner of Plow Shop Pond along the northeast perimeter of SHL. The Railroad Roundhouse, also referred to as SA 71, is located at the southeast corner of Plow Shop Pond (**Figure 1).**

2.2 Area of Contamination (AOC) 72 History

Plow Shop Pond is a man-made pond created during the late 1800s by the damming of Nonacoicus Brook. SHL to the west of Plow Shop Pond was reportedly operating by the early 1940s and evidence from test pits within the landfill suggests earlier usage, possibly as early as the mid-nineteenth century. The landfill was capped in 1993 and contains a variety of waste materials, including incinerator ash, demolition debris, asbestos, sanitary wastes, spent shell casings, glass, and other wastes. Elevated groundwater arsenic concentrations at SHL have subsequently impacted the Red Cove area of Plow Shop Pond which is located downgradient of and in close proximity to the northern portion of the landfill. Red Cove is a shallow cove with a water depth of less than one meter. Total sediment thickness in Red Cove is between 0-2 meters.

The Railroad Roundhouse at the southeast corner of Plow Shop Pond, is the former location of a roundhouse operated by the Boston and Maine Railroad from approximately 1900 to 1935. The site consists of a 200 to 300 foot (ft) wide strip of land extending south from Plow Shop Pond along the northeast boundary of SHL for approximately 1,100 feet (**Figure 1**). Historical features included an array of railroad tracks, a coal trestle, ash pit, water tower, and several buildings. The roundhouse was located at the northern end of this strip, immediately adjacent to the southern shore of Plow Shop Pond. The shoreline adjacent to the railroad roundhouse was used as a dumping area for locomotive maintenance by-products. Available maps and aerial photographs indicate that all of the buildings except a brick storeroom and the water tower were removed by 1942.

2.3 Soil Survey

According to the US Department of Agriculture, Natural Resources Conservation Service (NRCS), the mapped soil unit found within the study area is:

- Carver loamy coarse sand , 8-15 percent slopes (259C)
- Deerfield loamy sand, 3-8 percent slopes (256B)
- Hinckley loamy sand, 8-15 percent slopes (253B)
- Udorthents, sandy (653)

Figure 2 is a Local Soil Map based on soil Geographic Information Systems (GIS) data set published for Middlesex County, Massachusetts. None of the soils above are listed on the NRCS National Hydric Soil List for Middlesex County, Massachusetts.

3.0 FIELD METHODOLOGY

Between 16 and 23 May 2012 and between 13 and 19 June 2013, Sovereign performed a wetland delineation that included routine assessments of vegetation, hydrology, and soil conditions along proposed removal areas and access points to work areas (**Figure 3**).

Wetland delineation procedures followed the "routine method" outlined in the Corps 1987 Wetlands Delineation Manual, as modified by U.S. Army Corps of Engineers *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (2012)*. As discussed in the Northcentral and Northeast Regional Supplement, Ayer, Massachusetts is located in the Land Resource Region – R, Northeastern Forests. The applicable wetland determination data forms used during the wetland delineation are attached in **Attachment A;** photographs of the site are presented in **Attachment B.**

The standards and regulations established in the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00) were reviewed prior to the site delineation. The methodologies described within the Massachusetts Wetland Protection Act differ slightly from the USACE methodology. As such, the procedure for wetland delineation described in the Massachusetts document *Delineating Bordering Vegetated Wetlands* also was utilized during the May 2012 and June 2013 field investigations. Both the USACE and Massachusetts method delineations established the same wetland line (i.e. the USACE and Massachusetts lines did not diverge); therefore, there was no necessity to flag/delineate two separate wetland lines. A 100 ft Buffer Zone measured from the delineation line, as shown on **Figure 3**, is subject to protection under Massachusetts Regulations (310 CMR 10.02(1)(b)).

4.0 RESULTS

During the preliminary walk-over in May 2012, evidence of previous disturbance at the Railroad Roundhouse portion of the study area was abundant. Past site activities were apparent, including historical construction of the railroad to the east and associated site development, a restored area where a previous removal action and fill application took place, and drainage efforts from SHL. The remaining portions of the study area,

including Red Cove, appeared to be largely undisturbed with previous fill applications, drainage efforts, vegetation clearing/maintenance and/or development. Woody growth around the pond has been impacted by beaver, with Railroad Roundhouse being the most heavily impacted portion of the study area. Plow Shop Pond is fenced along the southwest boundary to prevent access to the property. Although this is a man-made pond with past disturbance areas along the railroad and historical fill material present in some areas, the soil, vegetative communities and hydrology has not been substantially altered in such a way as to impact the extent of the wetland line. Therefore, the wetland delineation in May 2012 was pursued on the basis of *normal* circumstance. It should be noted that in June 2013, heavy rains caused extensive flooding of Nonacoicus Brook and areas adjacent to the dam at the northwest corner of the pond. In addition, the water level in the pond was elevated approximately 2-3 ft and flooding of upland areas outside of the typical littoral zone was observed. Hydrology in floodplain areas surrounding the dam was altered to a degree that *normal* circumstance was absent. Therefore, in these areas, Sovereign relied heavily on vegetation and soil indicators to delineate wetland extents.

According to the National Wetland Inventory (NWI), the pond itself is categorized as a limnetic wetland (L1UBHh). The forested area on the floodplain of Nonacoicus Brook at the northwest corner of the pond is listed as a palustrine forested wetland (PFO1E) (Wetland A). Field delineation observations concluded that additional wetland areas are present. A thin littoral zone (L2EM2Hh) approximately 0-3 ft in width lies along the pond shore within the study area. This zone is dominated by unidentified submerged aquatic vegetation (SAV) and emergent vegetation such as *Peltandra virginica* (green arrow arum). In addition, thin wetland areas lie within the floodplain and/or capillary fringe of the pond. These wetlands vary in width depending on the grade of the topography from the water's edge. Wetland B was defined as palustrine forested/scrub-shrub (PFO1Eb/PSS1Eb) wetland, most prevalent along the capillary fringe of the pond within primarily mixed hardwood and pine forested areas. Wetland B was present within the majority of the study area including Red Cove. Wetland C was defined as palustrine emergent/scrub-shrub (PEM1E/PSS1Eb) wetland primarily in the Railroad Roundhouse area where past disturbances occurred.

As indicated by review of **Attachment 1**, eleven of twelve comprehensive wetland data plots exhibited co-occurrence of the three parameters that define jurisdictional wetlands (Wetland Data Plot 2 contained bricks and other fill material in soils and soil boring data was unavailable).

The soil profiles of the wetland test pits confirmed the presence of hydric soils within the boundary of the mapped soil units which are listed as non-hydric soils in Middlesex County, Massachusetts. Thus, the presence of standing water in the pond and flood zone areas adjacent to the top of bank of the pond and Nonacoicus Brook have created hydric soil conditions over time. Further, the upland soil profiles within the same mapped soil units were evaluated and found to exhibit a distinct variation in value and chroma in comparison to the wetland soil profiles. The hydric soil profiles in the wetland test pits in combination with prominent wetland vegetation and hydrology indicators confirmed the data plots were within the wetland boundaries. Where

hydrology did not conform to *normal* circumstance due to the flooding of June 2013, vegetation and hydric soil indicators were relied upon. This was most prevalent in the floodplain of Nonacoicus Brook west of the dam.

The wetland line was flagged primarily along a rise in topography (which ranged from a gentle slope to a steep incline of several feet) and where hydrophilic vegetation ceased to be dominant. Additionally, observations of plant adaptations such as buttressed tree trunks and shallow roots aided in determining the wetland line. The topographic change and vegetative cues represented the boundary between hydric and non-hydric soil. The twelve remaining sampling stations (Upland Data Plots 1 through 12) did not exhibit co-occurrence of all wetland indicator parameters and were used to characterize the upland areas adjacent to the wetlands. The delineated wetland line, wetland flag, and plot locations are presented on **Figure 3**, with magnified areas of Railroad Roundhouse on **Figure 4**, Red Cove on **Figure 5**, and Nonacoicus Brook on **Figure 6**.

The Wetland A area, including the area surrounding Nonacoicus Brook and the dam, contained a low-lying flood zone running along the brook's edge which extended up to 200 ft into the forest on the southwest side of the brook. In this floodplain, undulating microtopography resulted in low areas where standing water was retained. On the north side of Nonacoicus Brook, the bank rose steeply, thereby limiting the potential flood zone area to the north. During the June 2013 delineation, the dam had overflowed on both the north and south sides and flood waters filled the floodplain areas. Flood water was present at a depth of 3 inches to 3 ft in most low-lying areas. Soils consisted of layers of primarily sandy loam to up to 18 inches in depth with a high water column. Vegetation was heavily dominated by *Osmunda cinnamomea* (cinnamon fern) and also by *Acer rubrum* (red maple), *Cornus amomum* (silky dogwood) *Impatiens capensis* (jewelweed) *Rubus hispidus* (swamp dewberry), and *Onoclea sensibilis* (sensitive fern). The soil profile exhibited dark brown mineral soils with redoximorphic features.

The upland above Wetland A areas was characterized as an eastern white pine dominated forest. The forested area exhibited the following general structure:

- Canopy: *Pinus strobus* (eastern white pine), *Liquidambar styraciflua* (sweetgum) *Quercus rubra* (northern red oak), and *Acer rubrum* (red maple).
- Shrub: *Vaccinium corymbosum* (highbush blueberry) and *Acer rubrum* (red maple).
- Herbs/Ground Cover: *Rubus flagellaris* (northern dewberry) and *Maianthemum canadense* (Canada mayflower).

Within the Wetland B areas including Red Cove, the topography varied from approximately 1-2 ft above the surface water to 5+ ft above the surface water. The grade of the topography also varied from shallow to steep. In general, the capillary fringe of the pond extended to the top of slope creating a narow wetland area that supported hydrophytic vegetation such as *Alnus rugosa* (specked alder), *Rhododendron canadense* (rhodora), *Cephalanthus occidentalis* (buttonbush), *Acer rubrum* (red maple), *Vaccinium corymbosum* (highbush blueberry), and *Betula populifolia* (gray birch). The soil profile, where available, exhibited grayish brown mineral soils with redoximorphic features. Wetland B is also present on the eastern side of Railroad Roundhouse up to the Grove Pond culvert (**Figure 3**), however, topography differed due to the railroad embankment.

A floodplain was present at the southeast corner of the pond which expanded the width of the wetland up to the railroad embankment. Within the floodplain, the soil profile contained mucky mineral soil and a high water table. Additional hydrophytic vegetation such as *Impatiens capensis* (jewelweed) and *Typha latifolia* (broadleaf cattail) were present. Wetland B decreased in width as it continued north along the railroad tracks where the slope becomes increasingly steep and inaccessible.

The upland above Wetland B areas was characterized as an eastern white pine and oak dominated forest. The forested area exhibited the following general structure:

- Canopy: *Pinus strobus* (eastern white pine), *Quercus rubra* (northern red oak), and *Acer rubrum* (red maple).
- Shrub: *Alnus rugosa* (speckled alder) and *Betula populifolia* (gray birch).
- Herbs/Ground Cover: *Vaccinium angustifolium* (lowbush blueberry), *Kalmia angustifolia* (sheep laurel), *Solidago rugosa (*rough-stemmed goldenrod), and *Maianthemum canadense* (Canada mayflower*).*

The Wetland C area, including the area of Railroad Roundhouse, contained low-lying flood zone areas along the pond edge, with increasing slopes outside of the flood zone. The pond edges consisted of layers of primarily well-sorted sandy soils at least 18 inches in depth with a high water column. Vegetation was dominated by *Alnus rugosa* (specked alder), *Rhododendron canadense* (rhodora), *Betula populifolia* (gray birch), and *Onoclea sensibilis* (sensitive fern). The soil profile exhibited grayish brown mineral soils with redoximorphic features.

The upland above the Wetland C area exhibited the following general structure:

- Limited canopy: *Acer rubrum* (red maple).
- Shrub: *Alnus rugosa* (speckled alder) and *Lonicera japonica* (Japanese honeysuckle).
- Herbs/Ground Cover: *Vaccinium angustifolium* (lowbush blueberry), *Andropogon virginicus* (broomsedge bluestem), *Achillea millefolium* (common yarrow), and *Comptonia peregrina* (sweet fern).

A man-made rip-rap drainage swale leading from SHL to the Railroad Roundhouse was created to convey excess stormwater from the surrounding landfill and upland areas to the pond during storm events. The area does not typically contain water and is not considered an ephemeral or intermittent stream. Although the swale contains facultative vegetation such as *Panicum virgatum* (switchgrass), *Populus deltoides* (eastern cottonwood), and *Lonicera japonica* (Japanese honeysuckle) the lack of hydrology and hydric soil indicators confirms the swale is not a wetland. Therefore, this area was not included in the wetland determination area.

5.0 FINDINGS

Jurisdictional wetland determination is based on co-occurrence of wetland hydrology, hydric soil, and hydrophytic vegetation indicators. Using a detailed, ground-level assessment approach, co-occurring wetland indicator traits were evident along the perimeter of Plow Shop Pond within the study area.

In summary, Plow Shop Pond is a limnetic wetland (L1UBHh) with a narrow, non-persistant littoral zone (L2EM2Hh) along the shoreline. Three types of wetland areas were identified and delineated in the floodplain/capillary fringe of the pond. Wetland A, which encompasses Nonacoicus Brook, is a palustrine forested wetland (PFO1E). Wetland B, which encompasses Red Cove, is a palustrine forested/scrub-shrub wetland (PFO1Eb/PSS1Eb). Wetland C is a palustrine emergent/scrub-shrub wetland (PEM1E/PSS1Eb) located only within the Railroad Roundhouse area. The visual survey and foot traverse of the site during May 2012 and June 2013 indicated that the work zones and a majority of the staging areas (as proposed in Removal Action Work Plan for Contaminated Sediment in Plow Shop Pond) are located within wetland and wetland transition/buffer areas.

6.0 REFERENCES

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U.S. Army Corps of Engineers. January 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-09-19. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Cowardin et al. 1979. Classification of Wetlands and Deepwater Habitats of the United States. National Wetland Inventory, U.S. Fish and Wildlife Service. May 21, 2012.

FIGURES

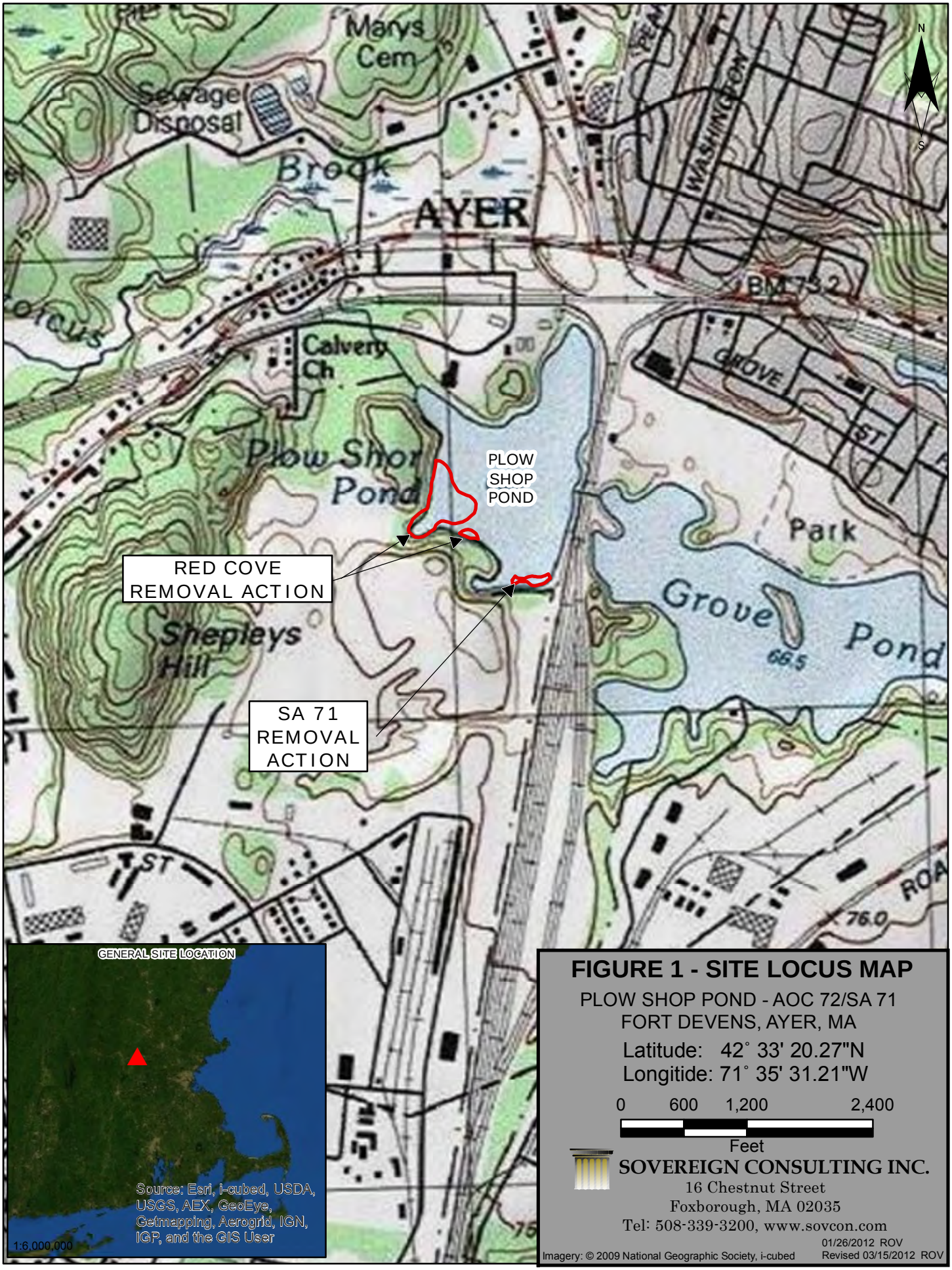

FIGURE 1 - SITE LOCUS MAP

PLOW SHOP POND - AOC 72/SA 71
FORT DEVENS, AYER, MA

Latitude: 42° 33' 20.27"N
Longitide: 71° 35' 31.21"W

0 600 1,200 2,400
Feet

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Foxborough, MA 02035
Tel: 508-339-3200, www.sovcon.com

Imagery: © 2009 National Geographic Society, i-cubed

01/26/2012 ROV
Revised 03/15/2012 ROV

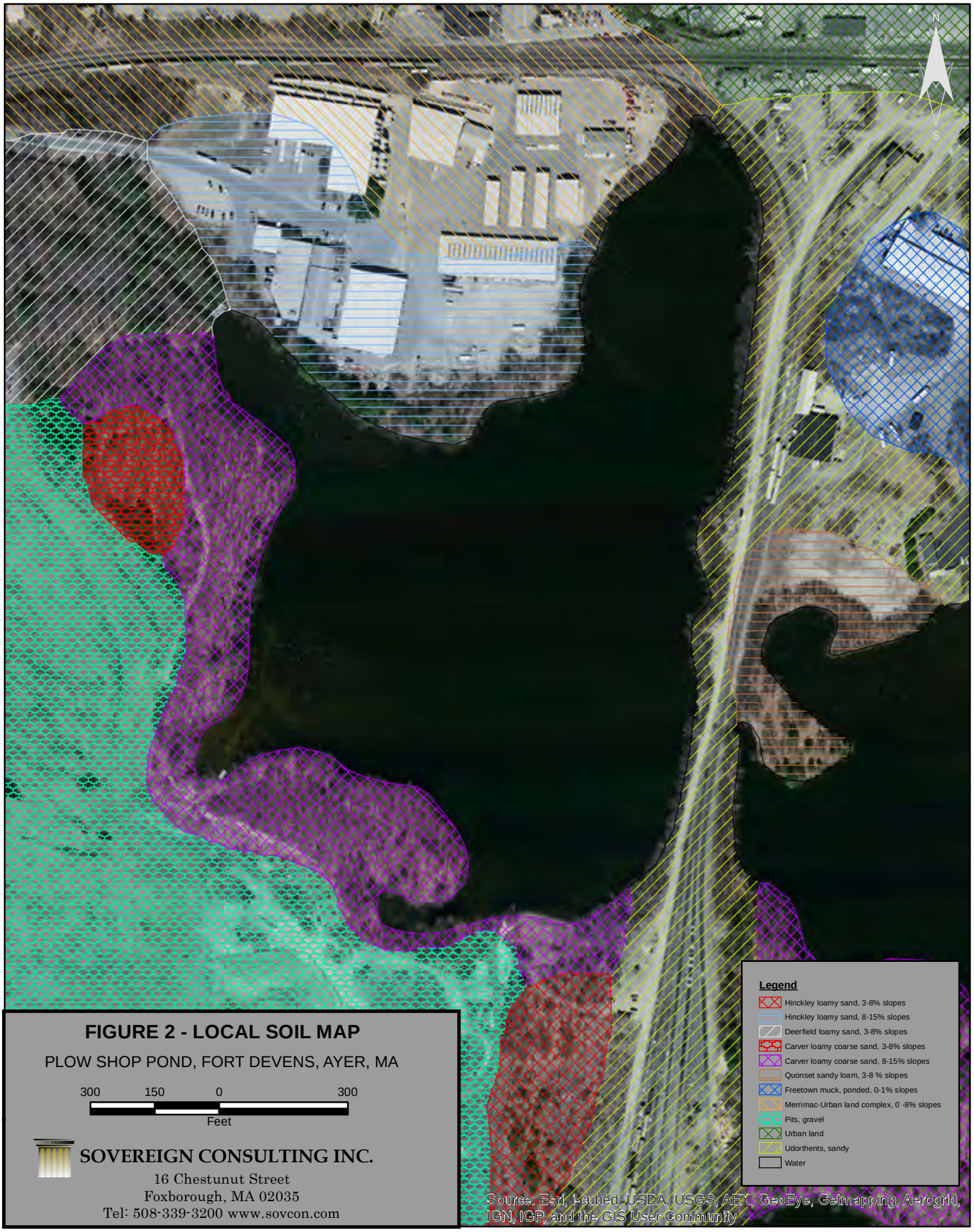

FIGURE 2 - LOCAL SOIL MAP

PLOW SHOP POND, FORT DEVENS, AYER, MA

300 150 0 300

Feet

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NOTES:

1) Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. U.S. General Soil Map (STATSGO2). Available online at http://soildatamart.nrcs.usda.gov . Accessed 05/21/2012

05/21/2012 ROV

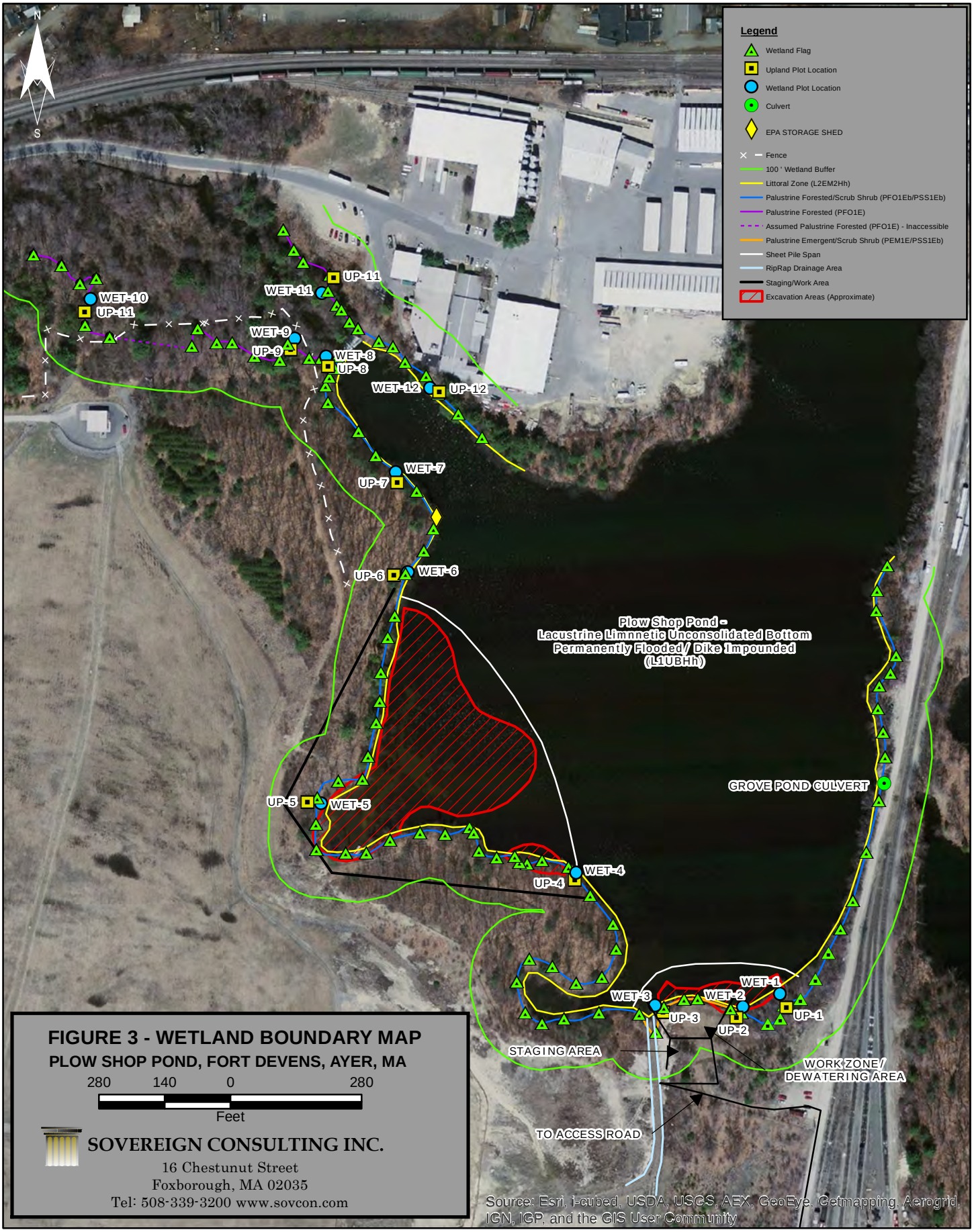

FIGURE 3 - WETLAND BOUNDARY MAP

PLOW SHOP POND, FORT DEVENS, AYER, MA

280 140 0 280

Feet

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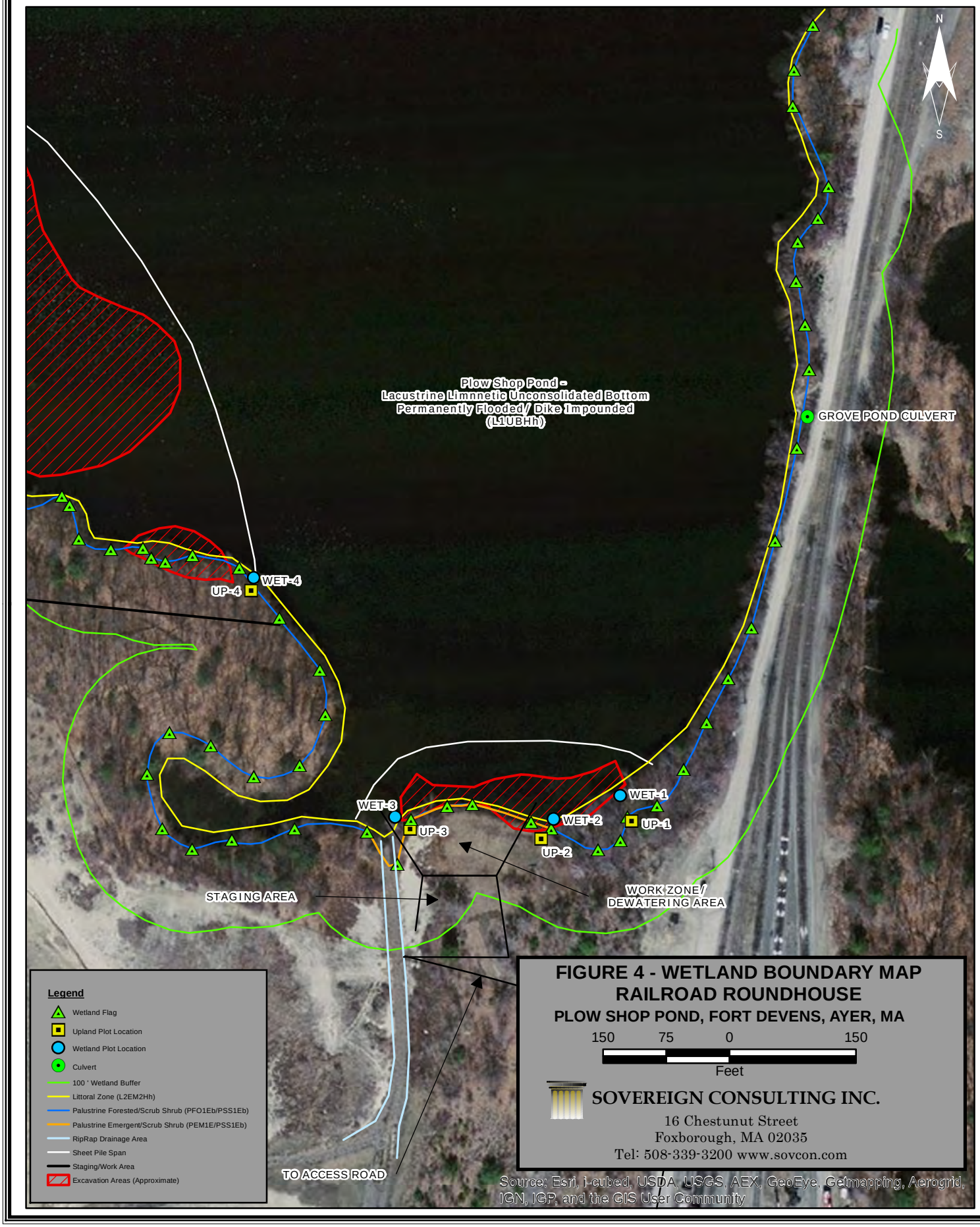
NOTES: 1. SOVEREIGN WETLAND DATA (PALUSTRINE EMERGENT/SCRUB SHRUB AND PALUSTRINE FORESTED/SCRUB SHRUB) WERE COLLECTED WITH A GEO EXPLORER® 2008 GEO-XH TRIMBLE UNIT IN MAY 2012 and JUNE 2013 . HORIZONTAL ACCURACY IS GENERALLY <1'.
2. THE LACUSTRINE LITTORAL ZONE IS APPROXIMATELY 0-3' FROM THE POND SHORELINE. THIS AREA CANNOT BE PROPERLY SHOWN AT THIS SCALE.
3. WETLAND CODES OBTAINED FROM: 1979. CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. COWARDIN et al.

05/24/2012 ROV
Updated 05/30/2012 ROV
Updated 06/27/2013 ROV



NOTES: 1. SOVEREIGN WETLAND DATA (PALUSTRINE EMERGENT/SCRUB SHRUB AND PALUSTRINE FORESTED/SCRUB SHRUB) WERE COLLECTED WITH A GEO EXPLORER® 2008 GEO-XH TRIMBLE UNIT IN MAY 2012 and JUNE 2013 . HORIZONTAL ACCURACY IS GENERALLY <1'.
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3. WETLAND CODES OBTAINED FROM: 1979. CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. COWARDIN et al.

05/24/2012 ROV
Updated 05/30/2012 ROV
Updated 06/27/2013 ROV

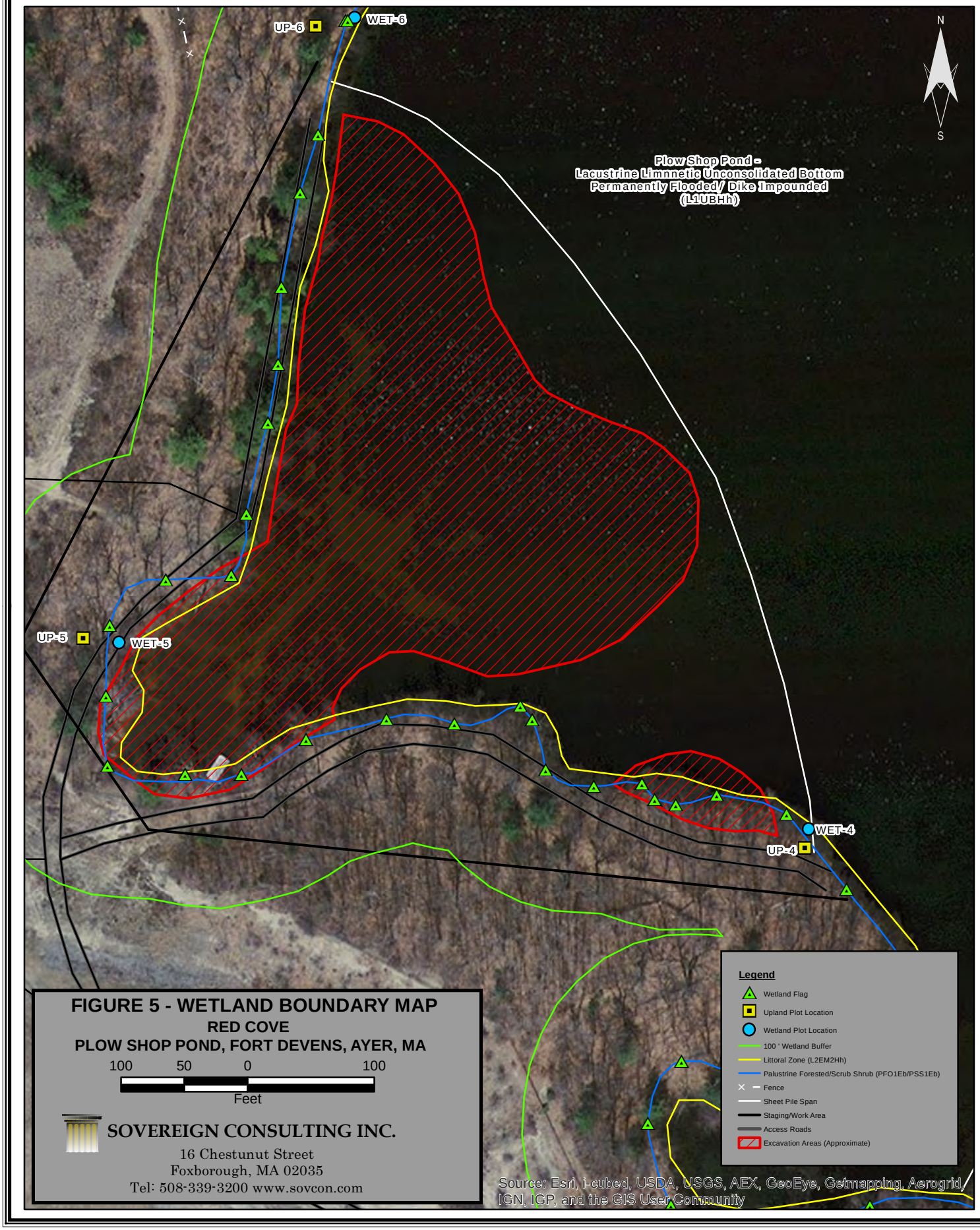

FIGURE 5 - WETLAND BOUNDARY MAP

RED COVE

PLOW SHOP POND, FORT DEVENS, AYER, MA

100 50 0 100

Feet

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NOTES: 1. SOVEREIGN WETLAND DATA (PALUSTRINE EMERGENT/SCRUB SHRUB AND PALUSTRINE FORESTED/SCRUB SHRUB) WERE COLLECTED WITH A GEO EXPLORER® 2008 GEO-XH TRIMBLE UNIT IN MAY 2012 and JUNE 2013 . HORIZONTAL ACCURACY IS GENERALLY <1'.
2. THE LACUSTRINE LITTORAL ZONE IS APPROXIMATELY 0-3' FROM THE POND SHORELINE. THIS AREA CANNOT BE PROPERLY SHOWN AT THIS SCALE.
3. WETLAND CODES OBTAINED FROM: 1979. CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. COWARDIN et al.

05/24/2012 ROV
Updated 05/30/2012 ROV
Updated 06/27/2013 ROV

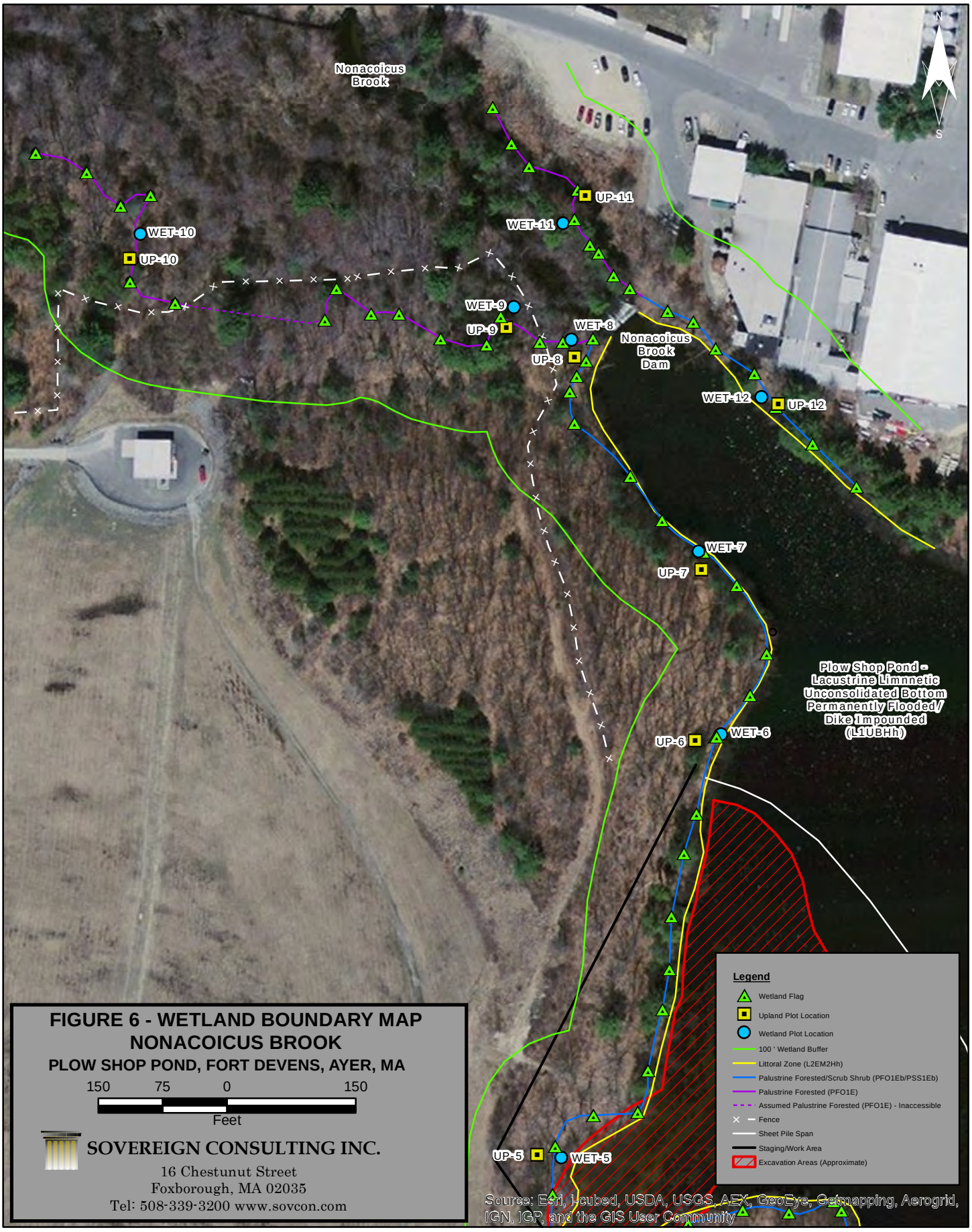

FIGURE 6 - WETLAND BOUNDARY MAP
NONACOICUS BROOK
PLOW SHOP POND, FORT DEVENS, AYER, MA

150 75 0 150

Feet

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NOTES: 1. SOVEREIGN WETLAND DATA (PALUSTRINE EMERGENT/SCRUB SHRUB AND PALUSTRINE FORESTED/SCRUB SHRUB) WERE COLLECTED WITH A GEO EXPLORER® 2008 GEO-XH TRIMBLE UNIT IN MAY 2012 and JUNE 2013 . HORIZONTAL ACCURACY IS GENERALLY <1'.

2. THE LACUSTRINE LITTORAL ZONE IS APPROXIMATELY 0-3' FROM THE POND SHORELINE. THIS AREA CANNOT BE PROPERLY SHOWN AT THIS SCALE.

3. WETLAND CODES OBTAINED FROM: 1979. CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. COWARDIN et al.

06/27/2013 ROV

ATTACHMENT A

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-1
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 0-25% Lat.: 42.55363118 Long.: -71.59139 Datum: NAD83
Soil Map Unit Name: Udorthents, sandy NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Plot located on a flood plain between the pond and an artificial slope to the east created by the railroad. Plot approx 10 ft from standing water (approximately 12" deep) at pond edge. Wetland area decreases in width as it continues north along the railroad tracks where the slope becomes increasingly steep and inaccessible.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No		Depth (inches):	12"
Water table present?	Yes	X	No	X	Depth (inches):	6"
Saturation present? (includes capillary fringe)	Yes	X	No	X	Depth (inches):	1"

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located on a flat flood plain, elevated topography to the east causes drainage to the floodplain area. Plot located approx 10 ft from pond edge.

VEGETATION - Use scientific names of plants

Sampling Point: WET-1

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Acer rubrum*	65	Y	FAC
2	*Ulmus americana*	30	Y	FACW
3				
4				
5				
6				
7				
8				
9				
10				
		95	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Alnus rugosa*	10	Y	FACW
2	*Vaccinium corymbosum*	10	Y	FACW
3	*Rhododendron canadense*	10	Y	FACW
4	*Cornus stolonifera*	5	N	FACW
5				
6				
7				
8				
9				
10				
		35	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Impatiens capensis*	25	Y	FACW
2	*Typha latifolia*	20	Y	OBL
3	*Sympalocarpus foetidus*	15	Y	OBL
4	*Osmunda cinnamomea*	15	Y	FACW
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		75	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	19	48
Sapling/Shrub Stratum	7	18
Herb Stratum	15	38
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 9 (A)

Total Number of Dominant Species Across all Strata: 9 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	35	x 1 =	35
FACW species	105	x 2 =	210
FAC species	65	x 3 =	195
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	205 (A)		440 (B)

Prevalence Index = B/A = 2.15

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Sphagnum spp present on soil and downed branches.

SOIL **Sampling Point:** WET-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-3	10YR 2/1							Organic material, wet loamy sand
3-8	10YR 3/1							Saturated, dk brown, m-c mucky mineral sand, tr gravel

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- _X_ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? ___Y___

Remarks:

Soils atypical from mapped soil series unit listing non-hydric soils.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/23/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-1
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 0-25% Lat.: 42.55355038 Long.: -71.5913406 Datum: NAD83
Soil Map Unit Name: Udorthents, sandy NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil X, or hydrology X significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Y	**Is the sampled area within a wetland?** N
Hydric soil present? N	
Wetland hydrology present? N	If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located in a reclaimed area that was previously disturbed during the construction of the railroad tracks to the east. Gravel stone/fill material present on the slope. Slope leads gradually down to the flood plain zone adjacent to the pond edge. Slope becomes increasingly steep and inaccessible to the north along the railway.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No ____	Depth (inches): ____	
Water table present?	Yes ____	No ____	Depth (inches): ____	
Saturation present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____	

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located on a slope leading from the flood plain below to the railroad tracks above. Slope artificially created by the railroad tracks. Slope provides drainage from tracks above to flood plain below.

VEGETATION - Use scientific names of plants

Sampling Point: UP-1

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Quercus bicolor*	50	Y	FACW
2	*Acer rubrum*	50	Y	FAC
3	*Pinus strobus*	10	N	FACU
4				
5				
6				
7				
8				
9				
10				
		110	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Betula populifolia*	5	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
		5	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Solidago rugosa*	50	Y	FACU
2	*Maianthemum canadense*	20	Y	FACU
3	*Rhus typhina*	5	N	FACU
4	*Ranunculus septentrionalis*	2	N	FAC
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		77	= Total Cover	

Woody Vine Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Toxicodendron radicans*	15	Y	FAC
2	*Parthenocissus quinquefolia*	15	Y	FACU
3				
4				
5				
		30	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	22	55
Sapling/Shrub Stratum	1	3
Herb Stratum	15	39
Woody Vine Stratum	6	15

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 7 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 57.14% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	72	x 3 =	216
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column totals	222 (A)		716 (B)

Prevalence Index = B/A = 3.23

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Hydrophytic vegetation present, however, hydrology and soils do not support presence of a wetland.

SOIL **Sampling Point:** UP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-2	10YR 2/1							Organic material
2-12	10YR 2/1							Dry, dk brown, sandy loam

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

Soil boring completed on slope created by the railroad. Gravel stone/fill material present on the slope. Slope becomes increasingly steep and filled with debris and fill material as it continues north along the railroad tracks.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-2
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55355595 Long.: -71.59168321 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil X, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	N		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located within 5 ft from standing water at pond edge, in a flat flood zone area adjacent to steep bank leading up to railroad tracks. Plot within a forested edge. Fill material (bricks/concrete) present in soils due to past site disturbance. At pond's edge, water is approximately 12" deep.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No	___	Depth (inches):	12"
Water table present?	Yes	___	No	X	Depth (inches):	___
Saturation present? (includes capillary fringe)	Yes	X	No	___	Depth (inches):	~1-2"

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located at base of steep bank, within 5' of pond edge. Water-stained leaves indicate flood zone.

VEGETATION - Use scientific names of plants

Sampling Point: WET-2

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Acer rubrum*	50	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
		50	= Total Cover	

Sapling/Shurb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1	*Rhododendron canadense*	2	Y	FACW
2	*Cephalanthus occidentalis*	2	Y	OBL
3				
4				
5				
6				
7				
8				
9				
10				
		4	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Onoclea sensibilis*	5	Y	FACW
2	*Symplocarpus foetidus*	5	Y	OBL
3	*Impatiens capensis*	5	Y	FACW
4	*Ludwigia palustris*	5	Y	OBL
5	*Typha latifolia*	2	N	OBL
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		22	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	10	25
Sapling/Shrub Stratum	1	2
Herb Stratum	4	11
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across all Strata: 7 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	14	x 1 =	14
FACW species	12	x 2 =	24
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	76 (A)		188 (B)

Prevalence Index = B/A = 2.47

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Sphagnum spp present on rocks and downed branches.

SOIL **Sampling Point:** WET-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

Soil boring data unavailable due to fill material (bricks/concrete) at ~2" bgs in multiple locations within flood zone next to pond. Assumed disturbed soil due to past site operations and presence of adjacent railroad bed. Although soil boring could not be completed, the presence of wetland hydrology and hydrophytic vegetation indicates that the plot is within a wetland.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-2
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55349217 Long.: -71.59173818 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil X, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located upslope from pond, on edge between forest and flat, previously disturbed area. Sandy fill material present in soils due to past site disturbance.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No ____	Depth (inches): ____	**Wetland hydrology present?**	N
Water table present?	Yes ____	No ____	Depth (inches): ____		
Saturation present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____		

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located upslope from pond (approx 10' higher in elevation) on edge of dry, grassy area previously disturbed during past site activities.

VEGETATION - Use scientific names of plants

Sampling Point: UP-2

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Acer rubrum*	10	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
		10	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Lonicera japonica*	25	Y	FACU
2	*Vaccinium angustifolium*	25	Y	FACU
3				
4				
5				
6				
7				
8				
9				
10				
		50	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Solidago spp. >FAC*	20	Y	FACU
2	*Comptonia peregrina*	20	Y	FACU
3	*Andropogon virginicus*	5	N	FACU
4	*Achillea millefolium*	2	N	FACU
5	*Betula populifolia*	2	N	FAC
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		49	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	2	5
Sapling/Shrub Stratum	10	25
Herb Stratum	10	25
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 20.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	12	x 3 =	36
FACU species	97	x 4 =	388
UPL species	0	x 5 =	0
Column totals	109 (A)		424 (B)

Prevalence Index = B/A = 3.89

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** UP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR 3/2							Dry, f-m brown sand, fill material
4-12	5Y 5/4							Dry, f-m brown sand, fill material

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

Highly drained, fine sandy fill material to 12" bgs. Previously disturbed area. Soils atypical from mapped soil series unit listing the presence of coarse loamy sands.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-3
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55356289 Long.: -71.5923806 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located within 5 ft from standing water at pond edge, in a flat flood zone area adjacent to slope leading up to cleared, previously disturbed area. Plot within a forested edge. At pond's edge, water is approximately 12" deep.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No	____	Depth (inches):	12"
Water table present?	Yes	X	No	____	Depth (inches):	8"
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	4"

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located on a flat flood zone area at base of slope, within 5' of pond edge.

VEGETATION - Use scientific names of plants

Sampling Point: WET-3

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Betula populifolia*	50	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
		50	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Alnus rugosa*	20	Y	FACW
2	*Cephalanthus occidentalis*	2	N	OBL
3				
4				
5				
6				
7				
8				
9				
10				
		22	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Onoclea sensibilis*	10	Y	FACW
2	*Solidago spp.* (assumed *ulignosa)*	10	Y	FAC
3	*Typha latifolia*	2	N	OBL
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		22	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	10	25
Sapling/Shrub Stratum	4	11
Herb Stratum	4	11
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	4	x 1 =	4
FACW species	30	x 2 =	60
FAC species	60	x 3 =	180
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	94 (A)		244 (B)

Prevalence Index = B/A = 2.60

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Sphagnum spp present on rocks and downed branches.

SOIL **Sampling Point:** WET-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-2	10YR 2/1							Organic material
2-6	10YR 4/2		10YR 5/6	10	C			Moist, gray-brown, m sand
6-12	10YR 5/1	50						Moist, gray, m sand
6-12	10YR 6/1	50						Moist, gray, m sand

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
X Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Depleted matrix, redox concentrations to 2-6" bgs. Standing water in boring hole at 8" bgs. Soils atypical from mapped soil series unit listing non-hydric soils.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-3
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55352253 Long.: -71.59231691 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil X, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Y	**Is the sampled area within a wetland?** N
Hydric soil present? N	
Wetland hydrology present? N	If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located upslope from pond edge and rip-rap drainage swale on edge of sandy path created by past site disturbance activities. Plot located in a previously cleared area.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No ____	Depth (inches): ____	**Wetland hydrology present?**	N
Water table present?	Yes ____	No ____	Depth (inches): ____		
Saturation present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____		

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located along slope leading up from drainage swale to flat, cleared area above.

VEGETATION - Use scientific names of plants

Sampling Point: UP-3

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Acer rubrum*	10	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
		10	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Alnus rugosa*	20	Y	FACW
2				
3				
4				
5				
6				
7				
8				
9				
10				
		20	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Comptonia peregrina*	50	Y	FACU
2	*Rubus spp.*	10	N	FACU
3	*Quercus prinoides*	10	N	FACU
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		70	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	2	5
Sapling/Shrub Stratum	4	10
Herb Stratum	14	35
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 66.67% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	10	x 3 =	30
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column totals	100 (A)		350 (B)

Prevalence Index = B/A = 3.50

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Hydrophytic vegetation present, however, hydrology and soils do not support presence of a wetland.

SOIL **Sampling Point:** UP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-8	2.5Y 5/4							Dry, m brown sand, fill material
8-12	10YR 4/6							Dry, m brown sand, fill material

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

Highly drained, fine sandy fill material to 12" bgs. Previously disturbed area. Soils atypical from mapped soil series unit listing the presence of course loamy sands.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-4
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55429896 Long.: -71.59301653 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located within a forested scrub-shrub wetland, approx. 3 ft from standing water at pond edge. Due to steepness of slope, unable to complete soil boring at this location - hydric soil assumed due to proximity to standing lake water. At pond's edge, water is approximately 12" deep.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No		Depth (inches):	12"
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):	

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Steep sloped topography from higher ground to water's edge. Plot located at base of slope, within 3 ft of pond edge.

VEGETATION - Use scientific names of plants

Sampling Point: WET-4

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Rhododendron canadense*	30	Y	FACW
2	*Betula populifolia*	10	Y	FAC
3	*Acer rubrum*	10	Y	FAC
4				
5				
6				
7				
8				
9				
10				
		50	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Vaccinium corymbosum*	30	Y	FACW
2	*Betula populifolia*	10	Y	FAC
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		40	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	10	25
Herb Stratum	8	20
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	90 (A)		210 (B)

Prevalence Index = B/A = 2.33

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Sphagnum spp present on soil along bank of pond.

SOIL **Sampling Point:** WET-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Due to steepness of slope, unable to complete soil boring. Assumed hydric soil due to proximity to standing pond water.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-4
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55429896 Long.: -71.59301653 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located adjacent to a forested scrub-shrub wetland boundary, upslope from the pond's edge.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No ____	Depth (inches): ____	**Wetland hydrology present?**	N
Water table present?	Yes ____	No ____	Depth (inches): ____		
Saturation present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____		

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located upslope from the pond's edge on a higher plateau. Topography slopes gently down to pond edge.

VEGETATION - Use scientific names of plants

Sampling Point: UP-4

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Quercus rubra*	50	Y	FACU
2	*Quercus palustris*	20	Y	FACW
3	*Acer rubrum*	10	N	FAC
4				
5				
6				
7				
8				
9				
10				
		80	= Total Cover	

Sapling/Shurb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Vaccinium angustifolium*	50	Y	FACU
2	*Quercus rubra*	5	N	FACU
3	*Betula populifolia*	5	N	FAC
4	*Kalmia angustifolia*	2	N	FAC
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		62	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	16	40
Sapling/Shrub Stratum	0	0
Herb Stratum	12	31
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 33.33% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	17	x 3 =	51
FACU species	105	x 4 =	420
UPL species	0	x 5 =	0
Column totals	142 (A)		511 (B)

Prevalence Index = B/A = 3.60

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** UP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-3	10YR 2/1							Organic material
3-12	10YR 5/6	50						Dry, m brown sand, tr gravel
3-12	10YR 5/4	50						Dry, m brown sand, tr gravel

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-5
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave
Slope (%): 8-15% Lat.: 42.55474221 Long.: -71.59502604 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot at Red Cove. Plot located on a floodplain within a forested scrub-shrub wetland, approx. 10 ft from standing water at pond edge. At pond's edge, water is approximately 12" deep.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	____
Water table present?	Yes	X	No	____	Depth (inches):	12"
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	2-3"

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Higher slopes all around drain to floodplain area next to pond's edge.

VEGETATION - Use scientific names of plants

Sampling Point: WET-5

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Acer rubrum*	35	Y	FAC
2	*Quercus rubra*	35	Y	FACU
3				
4				
5				
6				
7				
8				
9				
10				
		70	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Cephalanthus occidentalis*	20	Y	OBL
2	*Viburnum recognitum*	5	Y	FACW
3				
4				
5				
6				
7				
8				
9				
10				
		25	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Thelypteris palustris*	40	Y	FACW
2	*Quercus bicolor*	2	N	FACW
3	*Quercus rubra*	2	N	FACU
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		44	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	14	35
Sapling/Shrub Stratum	5	13
Herb Stratum	9	22
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 80.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	20	x 1 =	20
FACW species	47	x 2 =	94
FAC species	35	x 3 =	105
FACU species	37	x 4 =	148
UPL species	0	x 5 =	0
Column totals	139 (A)		367 (B)

Prevalence Index = B/A = 2.64

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** WET-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-2	10YR 2/1							Organic material
2-5	10YR 5/3		10YR 3/6	20	C			Moist, m gray sand
5-12	10YR 5/1		10YR 3/6	20	C			Moist, m gray sand

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
_X_ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Depleted matrix, redox concentrations to 5-12" bgs. Soil saturated at 2-3" bgs, standing water in the soil boring at 12" bgs. Soils atypical from mapped soil series unit listing non-hydric soils.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-5
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55475194 Long.: -71.59513224 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Y	**Is the sampled area within a wetland?** N
Hydric soil present? N	
Wetland hydrology present? N	If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located adjacent to a forested scrub-shrub wetland boundary, upslope from the pond's edge.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No ____	Depth (inches): ____	
Water table present?	Yes ____	No ____	Depth (inches): ____	
Saturation present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____	

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located upslope from the pond's edge. Topography slopes gently down to floodplain below.

VEGETATION - Use scientific names of plants

Sampling Point: UP-5

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Quercus rubra*	35	Y	FACU
2	*Pinus strobus*	20	Y	FACU
3	*Acer rubrum*	20	Y	FAC
4				
5				
6				
7				
8				
9				
10				
		75	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Alnus rugosa*	10	Y	FACW
2				
3				
4				
5				
6				
7				
8				
9				
10				
		10	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Kalmia angustifolia*	40	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		40	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	15	38
Sapling/Shrub Stratum	2	5
Herb Stratum	8	20
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 60.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	60	x 3 =	180
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column totals	125 (A)		420 (B)

Prevalence Index = B/A = 3.36

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Hydrophytic vegetation present, however, hydrology and soils do not support presence of a wetland.

SOIL **Sampling Point:** UP-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-2	10YR 2/1							Organic material
2-12	10YR 5/3							Dry, m brown sand

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-6
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55609147 Long.: -71.59436444 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located within a forested scrub-shrub wetland, approx. 3 ft from standing water at pond edge. Due to steepness of slope, unable to complete soil boring at this location - hydric soil assumed due to proximity to standing pond water. At pond's edge, water is approximately 12" deep.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No		Depth (inches):	12"
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):	

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Steep sloped topography from higher ground to water's edge. Plot located at base of slope, within 3 ft of pond edge.

VEGETATION - Use scientific names of plants

Sampling Point: WET-6

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Quercus rubra*	30	Y	FACU
2				
3				
4				
5				
6				
7				
8				
9				
10				
		30	= Total Cover	

Sapling/Shurb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Rhododendron canadense*	20	Y	FACW
2	*Vaccinium corymbosum*	10	Y	FACW
3	*Peltandra virginica*	2	N	OBL
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		32	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	6	15
Sapling/Shrub Stratum	0	0
Herb Stratum	6	16
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 66.67% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	2	x 1 =	2
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column totals	62 (A)		182 (B)

Prevalence Index = B/A = 2.94

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Sphagnum spp present on soil along bank of pond.

SOIL **Sampling Point:** WET-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Due to steepness of slope, unable to complete soil boring. Assumed hydric soil due to proximity to standing pond water.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 5/16/12
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-6
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.5560784 Long.: -71.59445222 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? N	**Is the sampled area within a wetland?** N
Hydric soil present? N	
Wetland hydrology present? N	If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located adjacent to a forested scrub-shrub wetland boundary, upslope from the pond's edge. Slope leads from higher ground down to water's edge of the pond.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No ____	Depth (inches): ____	**Wetland hydrology present?**	N
Water table present?	Yes ____	No ____	Depth (inches): ____		
Saturation present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____		

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located upslope from pond on a steep slope.

VEGETATION - Use scientific names of plants

Sampling Point: UP-6

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Quercus rubra*	60	Y	FACU
2	*Pinus strobus*	40	Y	FACU
3				
4				
5				
6				
7				
8				
9				
10				
		100	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Hamamelis virginiana*	15	Y	FACU
2				
3				
4				
5				
6				
7				
8				
9				
10				
		15	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Vaccinium angustifolium*	10	Y	FACU
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		10	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	20	50
Sapling/Shrub Stratum	3	8
Herb Stratum	2	5
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	125	x 4 =	500
UPL species	0	x 5 =	0
Column totals	125 (A)		500 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** UP-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-3	10YR 3/2							Organic material
4-6	10YR 5/6							Dry, m brown sand

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/13/13
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-7
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55670 Long.: -71.59442 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? No
(If needed, explain any answers in remarks)
Due to higher than average seasonal rainfall, the water level in Plow Shop Pond is 2-3 ft above normal. The typical littoral zone is currently underwater.

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located in a forested scub-shrub wetland approximately 1' from standing water at pond edge. At pond's edge, water is approximately 24" deep.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No	____	Depth (inches):	24"
Water table present?	Yes	X	No	____	Depth (inches):	12"
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	6"

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located approximately 1' from pond edge at the base of a steep slope.

VEGETATION - Use scientific names of plants

Sampling Point: WET-7

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Acer rubrum*	30	Y	FAC
2	*Quercus alba*	25	Y	FACU
3	*Quercus palustris*	15	N	FACW
4	*Pinus rigida*	10	N	FACU
5				
6				
7				
8				
9				
10				
		80	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Alnus rugosa*	20	Y	FACW
2	*Spiraea alba*	10	Y	FACW
3				
4				
5				
6				
7				
8				
9				
10				
		30	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Vaccinium corymbosum*	20	Y	FAC
2	*Thelypteris palustris*	10	Y	OBL
3	*Rhododendron canadense*	5	N	FACW
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		35	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	16	40
Sapling/Shrub Stratum	6	15
Herb Stratum	7	18
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across all Strata: 6 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 83.33% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	10	x 1 =	10
FACW species	50	x 2 =	100
FAC species	50	x 3 =	150
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column totals	145 (A)		400 (B)

Prevalence Index = B/A = 2.76

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** WET-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Due to steepness of slope, unable to complete soil boring. Assumed hydric soil due to proximity to standing pond water.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/13/13
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-7
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55664 Long.: -71.59442 Datum: NAD83
Soil Map Unit Name: Carver loamy coarse sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)
Due to higher than average seasonal rainfall, flooding is present in some upland areas, however upland locations on steep slopes, such as Plot UP-7, exhibit normal circumstances.

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located upslope of the pond's edge on a steep slope.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	____	No	____	Depth (inches): ____
Water table present?	Yes	____	No	____	Depth (inches): ____
Saturation present? (includes capillary fringe)	Yes	____	No	____	Depth (inches): ____

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located on a steep slope leading up from the pond's edge.

VEGETATION - Use scientific names of plants

Sampling Point: UP-7

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Quercus rubra*	35	Y	FACW
2	*Pinus rigida*	10	Y	FACU
3				
4				
5				
6				
7				
8				
9				
10				
		45	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Vaccinium angustifolium*	40	Y	FACU
2	*Quercus alba*	5	N	FACU
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		45	= Total Cover	

Woody Vine Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	9	23
Sapling/Shrub Stratum	0	0
Herb Stratum	9	23
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 33.33% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	0	x 3 =	0
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column totals	90 (A)		290 (B)

Prevalence Index = B/A = 3.22

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** UP-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR 2/2							m-sandy loam, dk brown, dry
4-12	10YR 4/6							m-sand, lt brown, dry

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/13/13
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-8
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 3-8% Lat.: 42.55736 Long.: -71.59499 Datum: NAD83
Soil Map Unit Name: Deerfield loamy sand NWI Classification: PFO1E
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? No
(If needed, explain any answers in remarks)
Due to higher than average seasonal rainfall, the water level in Plow Shop Pond is 2-3 ft above normal and the low-lying areas surrounding the dam are currently underwater or saturated to the soil surface.

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located in a forested wetland approximately 20 ft south of the dam in an area that appears to be periodically flooded during heavy rains. A slight slope leads from the upland areas southeast of the dam down to the low-lying floodzone area southwest of the dam. Currently, plot location is flooded and soil is saturated.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- X Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	
Water table present?	Yes	X	No	____	Depth (inches):	12"
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	1"

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located in a periodically flooded area on the south side of the dam. Due to heavy rains, plot area currently exhibits saturation to soil surface, however, this condition is likely atypical as the microtopography of the plot location is slightly sloped and not concave. Surrounding areas beside dam are heavily flooded due to high water.

VEGETATION - Use scientific names of plants

Sampling Point: WET-8

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Ulmus americana*	35	Y	FACW
2	*Quercus palustris*	10	Y	FACW
3				
4				
5				
6				
7				
8				
9				
10				
		45	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Cornus amomum*	25	Y	FACW
2				
3				
4				
5				
6				
7				
8				
9				
10				
		25	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Impatiens capensis*	40	Y	FACW
2	*Onoclea sensibilis*	20	Y	FACW
3	*Vaccinium corymbosum*	10	N	FACW
4	*Thelypteris palustris*	10	N	OBL
5	*Solidago rugosa*	5	N	FAC
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		85	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1	*Toxicodendron radicans*	5	Y	FAC
2				
3				
4				
5				
		5	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	9	23
Sapling/Shrub Stratum	5	13
Herb Stratum	17	43
Woody Vine Stratum	1	3

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across all Strata: 6 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	10	x 1 =	10
FACW species	140	x 2 =	280
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	160 (A)		320 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Sphagnum spp. present on tree roots and downed woody debris within plot.

SOIL **Sampling Point:** WET-8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR 2/1							m-sandy loam, tr. clay, dk brown
4-6	10YR 2/1 10YR 4/3	60% 40%						m-sandy loam, tr. clay, dk brown and lt brown
6-12	10YR 2/1		2.5YR 4/3	5%	C	PL		m-sandy loam, tr. clay, dk brown with reddish pore linings

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
_X_ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Soils atypical of mapped soil unit which is listed as non-hydric. Sandy loam with redox concentrations along pore linings. Saturation observed to soil surface with water in the hole at 12" bgs, however, current water table conditions are likely higher than typical conditions due to flooding observed in area.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/13/13
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-8
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex
Slope (%): 3-8% Lat.: 42.55732 Long.: -71.59497 Datum: NAD83
Soil Map Unit Name: Deerfield loamy sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? No
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located on an upland peninsula that abuts the dam. Although hydrophytic vegetation present within this plot, the absence of hydric soils and hydrology indicate an upland area.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No ____	Depth (inches):	
Water table present?	Yes ____	No ____	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ____	No ____	Depth (inches):	

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located on a small topographically raised peninsula adjacent to the south side of the dam. Runoff drains from this area toward lower areas to the west.

VEGETATION - Use scientific names of plants

Sampling Point: UP-8

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Ulmus americana*	35	Y	FACW
2				
3				
4				
5				
6				
7				
8				
9				
10				
		35	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Osmunda cinnamomea*	50	Y	FACW
2	*Vaccinium corymbosum*	25	Y	FACW
3	*Dichanthelium clandestinum*	5	N	FAC
4	*Quercus alba*	2	N	FACU
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		82	= Total Cover	

Woody Vine Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Toxicodendron radicans*	5	Y	FAC
2				
3				
4				
5				
		5	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	7	18
Sapling/Shrub Stratum	0	0
Herb Stratum	16	41
Woody Vine Stratum	1	3

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	110	x 2 =	220
FAC species	10	x 3 =	30
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column totals	122 (A)		258 (B)

Prevalence Index = B/A = 2.11

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Although hydrophytic vegetation present within this plot, the absence of hydric soils and hydrology indicate an upland area.

SOIL **Sampling Point:** UP-8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-6	10YR 2/2							m-sandy loam, dk brown, dry
6-12	10YR 3/3							m-sand, tr silt, lt brown, dry

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/14/13
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-9
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): none
Slope (%): 3-8% Lat.: 42.55752 Long.: -71.59518 Datum: NAD83
Soil Map Unit Name: Deerfield loamy sand NWI Classification: PFO1E
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? No
(If needed, explain any answers in remarks)
Due to higher than average seasonal rainfall, the low-lying areas surrounding the dam are currently underwater or saturated to the soil surface.

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located in a forested wetland approximately 20 ft south from Nonacoicus Brook in a floodplain area. Currently, plot location is flooded and standing water is present.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No	___	Depth (inches):	3-6"
Water table present?	Yes	X	No	___	Depth (inches):	0"
Saturation present? (includes capillary fringe)	Yes	X	No	___	Depth (inches):	0"

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located in a floodplain on the south side of Nonacoicus Brook. Due to heavy rains, plot area currently exhibits standing water. Surface water appears to be present periodically, due to the presence of water-stained leaves in microtopographic lows within the floodplain.

VEGETATION - Use scientific names of plants

Sampling Point: WET-9

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Acer rubrum*	70	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
		70	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Cornus amomum*	5	Y	FACW
2				
3				
4				
5				
6				
7				
8				
9				
10				
		5	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Onoclea sensibilis*	60	Y	FACW
2	*Osmunda cinnamomea*	40	Y	FACW
3	*Rubus hispidus*	10	N	FACW
4	*Iris versicolor*	2	N	OBL
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		112	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	14	35
Sapling/Shrub Stratum	1	3
Herb Stratum	22	56
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	2	x 1 =	2
FACW species	115	x 2 =	230
FAC species	70	x 3 =	210
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	187 (A)		442 (B)

Prevalence Index = B/A = 2.36

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** WET-9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR 2/1							f-m-sand, some silt, tr. clay, dk brown
4-12	10YR 2/1		10YR 7/6 10YR 4/6	10% 2%	C	PL		f-m-sand, some silt, tr. clay, dk brown w/yellow & copper conc

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Soils atypical of mapped soil unit which is listed as non-hydric. Sandy soil with redox concentrations along pore linings. Standing water currently 3-6" deep, however soil is not likely flooded for long periods throughout the year - water table conditions are likely higher than typical conditions due to flooding observed in area.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/14/13
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-9
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 3-8% Lat.: 42.55756 Long.: -71.59537 Datum: NAD83
Soil Map Unit Name: Deerfield loamy sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? No
(If needed, explain any answers in remarks)
Due to higher than average seasonal rainfall, flooding is present in some upland areas.

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located next to old roadbed leading to the gate that accesses the dam. Although hydrophytic vegetation present, the absence of hydric soils and hydrology indicate an upland area.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	____	No	____	Depth (inches): ____
Water table present?	Yes	____	No	____	Depth (inches): ____
Saturation present? (includes capillary fringe)	Yes	____	No	____	Depth (inches): ____

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located adjacent to an overgrown road bed on a shallow slope leading down to the floodplain area of Nonacoicus Brook. Runoff drains from this area toward lower areas to the west.

VEGETATION - Use scientific names of plants

Sampling Point: UP-9

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Pinus strobus*	75	Y	FACU
2				
3				
4				
5				
6				
7				
8				
9				
10				
		75	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Acer rubrum*	10	Y	FAC
2	*Vaccinium corymbosum*	10	Y	FACW
3				
4				
5				
6				
7				
8				
9				
10				
		20	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Osmunda cinnamomea*	30	Y	FACW
2	*Maianthemum canadense*	20	Y	FAC
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		50	= Total Cover	

Woody Vine Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	15	38
Sapling/Shrub Stratum	4	10
Herb Stratum	10	25
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 80.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	30	x 3 =	90
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column totals	145 (A)		470 (B)

Prevalence Index = B/A = 3.24

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Although hydrophytic vegetation present within this plot, the absence of hydric soils and hydrology indicate an upland area.

SOIL **Sampling Point:** UP-9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-2								organic matter
2-10	10YR 2/1							f-m-sand, some silt, dk brown, dry
10-12	10YR 3/2							f-m-sand, some silt, brown, slightly moist

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)

___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/14/13
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-10
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): none
Slope (%): 3-8% Lat.: 42.55777 Long.: -71.59702 Datum: NAD83
Soil Map Unit Name: Deerfield loamy sand NWI Classification: PFO1E
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? No
(If needed, explain any answers in remarks)
Due to higher than average seasonal rainfall, the low-lying areas surrounding Nonacoicus Brook are currently underwater or saturated to the soil surface.

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located in a forested wetland south from Nonacoicus Brook in a floodplain area. Due to heavy rains, adjacent areas are currently flooded with standing water present.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches):	____
Water table present?	Yes	X	No	____	Depth (inches):	8"
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	6"

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located in a floodplain on the south side of Nonacoicus Brook. Water table at plot location could be atypically elevated due to nearby flooding.

VEGETATION - Use scientific names of plants

Sampling Point: WET-10

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Liquidambar styraciflua*	70	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
		70	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Liquidambar styraciflua*	10	Y	FAC
2	*Viburnum recognitum*	10	Y	FACW
3				
4				
5				
6				
7				
8				
9				
10				
		20	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Onoclea sensibilis*	60	Y	FACW
2	*Impatiens capensis*	50	Y	FACW
3	*Rubus hispidus*	25	N	FACW
4	*Thelypteris palustris*	5	N	OBL
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		140	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	14	35
Sapling/Shrub Stratum	4	10
Herb Stratum	28	70
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	5	x 1 =	5
FACW species	145	x 2 =	290
FAC species	80	x 3 =	240
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	230 (A)		535 (B)

Prevalence Index = B/A = 2.33

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** WET-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-6	10YR 2/1							f-m-sand, some silt, tr. clay, dk brown
6-12	10YR 2/1		2.5YR 3/4	10%	C	PL		f-m-sand, some silt, tr. clay, dk brown w/reddish masses and pore lining concentrations

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
X Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Soils atypical of mapped soil unit which is listed as non-hydric. Sandy soil with redox concentrations in masses and along pore linings.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/14/13
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-10
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 3-8% Lat.: 42.55766 Long.: -71.59702 Datum: NAD83
Soil Map Unit Name: Deerfield loamy sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? No
(If needed, explain any answers in remarks)
Due to higher than average seasonal rainfall, flooding is present in some upland areas.

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located on a shallow slope upland from the floodplain area of Nonacoicus Brook. Although hydrophytic vegetation present, the absence of hydric soils and hydrology indicate an upland area.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No ____	Depth (inches):	
Water table present?	Yes ____	No ____	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ____	No ____	Depth (inches):	

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located on a shallow slope upland from the floodplain area. Runoff drains from this area toward lower areas to the northwest.

VEGETATION - Use scientific names of plants

Sampling Point: UP-10

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Liquidambar styraciflua*	60	Y	FAC
2	*Acer rubrum*	50	Y	FAC
3	*Pinus rigida*	20	N	FACU
4				
5				
6				
7				
8				
9				
10				
		130	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Vaccinium corymbosum*	25	Y	FACW
2	*Liquidambar styraciflua*	20	Y	FAC
3				
4				
5				
6				
7				
8				
9				
10				
		45	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Rubus flagellaris*	10	Y	FACU
2	*Liquidambar styraciflua*	5	Y	FAC
3	*Viburnum recognitum*	5	Y	FACW
4	*Rosa multiflora*	5	Y	FACU
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		25	= Total Cover	

Woody Vine Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	26	65
Sapling/Shrub Stratum	9	23
Herb Stratum	5	13
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across all Strata: 8 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 75.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	135	x 3 =	405
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column totals	200 (A)		605 (B)

Prevalence Index = B/A = 3.03

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

Although hydrophytic vegetation present within this plot, the absence of hydric soils and hydrology indicate an upland area.

SOIL **Sampling Point:** UP-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-12	10YR 2/2							f-sand, some silt, dk brown, dry
12-14	10YR 2/2		10Y/R 5/6	15%	C	PL		f-sand, some silt, brown, slightly moist

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

Soil exhibits some redox features but at a depth too deep to be considered a hydric soil indicator.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/19/13
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-11
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): none
Slope (%): 3-8% Lat.: 42.55774 Long.: -71.59501 Datum: NAD83
Soil Map Unit Name: Deerfield loamy sand NWI Classification: PFO1E
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? No
(If needed, explain any answers in remarks)
Due to higher than average seasonal rainfall, the low-lying areas surrounding Nonacoicus Brook are currently underwater or saturated to the soil surface.

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located in a forested wetland on the north side of Nonacoicus Brook, north of the dam, in a floodplain area that is also downslope from a dirt road to the north leading to the dam. Due to heavy rains, adjacent areas are currently flooded with standing water present.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- X Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No	____	Depth (inches):	6"-1'
Water table present?	Yes	X	No	____	Depth (inches):	10"
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	10"

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Standing water to a depth of 6"-1' is present within 5' of the center of the plot, likely due to localized flooding. However, large maple trees within plot exhibited butressed roots, indicating that periodic flooding of Nonacoicus Brook may occur in this area. The water table within the soil boring noted at 10" bgs.

VEGETATION - Use scientific names of plants

Sampling Point: WET-11

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Acer rubrum*	80	Y	FAC
2	*Pinus strobus*	20	Y	FACU
3				
4				
5				
6				
7				
8				
9				
10				
		100	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Osmunda regalis*	40	Y	OBL
2	*Quercus rubra*	15	Y	FACU
3	*Cornus amomum*	10	N	FACW
4	*Dichanthelium clandestinum*	5	N	FAC
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		70	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1	*Toxicodendron radicans*	5	Y	FAC
2				
3				
4				
5				
		5	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	20	50
Sapling/Shrub Stratum	0	0
Herb Stratum	14	35
Woody Vine Stratum	1	3

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 60.00% (A/B)

Total % Cover of:

OBL species	40	x 1 =	40
FACW species	10	x 2 =	20
FAC species	90	x 3 =	270
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column totals	175 (A)		470 (B)

Prevalence Index = B/A = 2.69

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** WET-11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-1	10YR 2/1							organic material
1-3	10YR 2/1							f-sandy loam, dk brown, slightly moist
3-12	10YR 2/1		10YR 5/8 10YR 5/4	20% 10%	C	PL		f-sandy loam, dk brown, moist, with pore lining concentrations

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
X Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Soils atypical of mapped soil unit which is listed as non-hydric. Sandy loam with redox concentrations along pore linings. Saturated at 10" bgs.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/19/13
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-11
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 3-8% Lat.: 42.55780 Long.: -71.59489 Datum: NAD83
Soil Map Unit Name: Deerfield loamy sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? No
(If needed, explain any answers in remarks)
Due to higher than average seasonal rainfall, flooding is present in some upland areas.

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located on a moderate slope upland from the floodplain area of Nonacoicus Brook. At the top of the slope is a dirt road leading down to the dam.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	____	No	____	Depth (inches): ____
Water table present?	Yes	____	No	____	Depth (inches): ____
Saturation present? (includes capillary fringe)	Yes	____	No	____	Depth (inches): ____

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located on a moderate slope upland from a floodplain area. Runoff drains from this area toward lower areas to the southwest.

VEGETATION - Use scientific names of plants

Sampling Point: UP-11

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Pinus strobus*	70	Y	FACU
2	*Quercus rubra*	30	Y	FACU
3				
4				
5				
6				
7				
8				
9				
10				
		100	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Polyganum cuspidatum*	60	Y	FACU
2	*Pinus strobus*	5	N	FACU
3	*Maianthemum canadense*	5	N	FAC
4	*Quercus rubra*	5	N	FACU
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		75	= Total Cover	

Woody Vine Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Toxicodendron radicans*	10	Y	FAC
2				
3				
4				
5				
		10	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	20	50
Sapling/Shrub Stratum	0	0
Herb Stratum	15	38
	2	5

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 25.00% (A/B)

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	170	x 4 =	680
UPL species	0	x 5 =	0
Column totals	185 (A)		725 (B)

Prevalence Index = B/A = 3.92

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

Heavily dominated by *Polyganum cuspidatum* (Japanese knotweed) due to the proximity to the dirt road leading to the dam. Road is overgrown with this vegetation.

SOIL **Sampling Point:** UP-11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-1								organic material
1-13	10YR 2/1							f-sand, some silt, few m-gravel, dk brown, dry

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? ___N___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/19/13
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: WET-12
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55719 Long.: -71.59416 Datum: NAD83
Soil Map Unit Name: Hinckley loamy sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? No
(If needed, explain any answers in remarks)
Due to higher than average seasonal rainfall, the water level in Plow Shop Pond is 2-3 ft above normal. The typical littoral zone is currently underwater.

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located in a forested scrub-shrub wetland approx 1 ft from standing water at the pond's edge on the north side of the Plow Shop Pond. At water's edge, pond is approximately 6" deep.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- X Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	X	No	____	Depth (inches):	6"-1'
Water table present?	Yes	X	No	____	Depth (inches):	10"
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches):	10"

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located at the base of a shallow slope, approximately 1' from pond's edge.

VEGETATION - Use scientific names of plants

Sampling Point: WET-12

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Juglans nigra*	50	Y	FACU
2				
3				
4				
5				
6				
7				
8				
9				
10				
		50	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Cornus sericea*	30	Y	FACW
2	*Viburnum recognitum*	20	Y	FACW
3	*Juglans nigra*	20	Y	FACU
4	*Vaccinium corymbosum*	15	N	FACW
5				
6				
7				
8				
9				
10				
		85	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Iris versicolor*	10	Y	OBL
2	*Carex lurida*	2	N	OBL
3	*Peltandra virginica*	2	N	OBL
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		14	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	10	25
Sapling/Shrub Stratum	17	43
Herb Stratum	3	7
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 60.00% (A/B)

Total % Cover of:

OBL species	14	x 1 =	14
FACW species	65	x 2 =	130
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column totals	149 (A)		424 (B)

Prevalence Index = B/A = 2.85

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** WET-12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Due to high water level in pond and flooding into upland area, unable to complete soil boring. Assumed hydric soil due to vegetation and proximity to standing pond water.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Plow Shop Pond City/County: Ayer/Middlesex Sampling Date: 6/19/13
Applicant/Owner: US Army Corps of Engineers (USACE) State: MA Sampling Point: UP-12
Investigator(s): L.Simkins Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none
Slope (%): 8-15% Lat.: 42.55716 Long.: -71.59408 Datum: NAD83
Soil Map Unit Name: Hinckley loamy sand NWI Classification:
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? circumstances" present? Yes
(If needed, explain any answers in remarks)
Due to higher than average seasonal rainfall, flooding is present in some upland areas, however upland locations on steep slopes, such as Plot UP-12, exhibit normal circumstances.

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Plot located on a moderate slope upland from the edge of Plow Shop Pond. A portion of the slope appears to be artifically created with peastone fill material in order to build the recycling facility to the north

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	____	No	____	Depth (inches): ____
Water table present?	Yes	____	No	____	Depth (inches): ____
Saturation present? (includes capillary fringe)	Yes	____	No	____	Depth (inches): ____

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Plot located on a moderate slope upland from the pond. Runoff drains from the recycling facility down this slope toward the pond.

VEGETATION - Use scientific names of plants

Sampling Point: UP-12

Tree Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Pinus strobus*	50	Y	FACU
2				
3				
4				
5				
6				
7				
8				
9				
10				
		50	= Total Cover	

Sapling/Shurb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Herb Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Vaccinium corymbosum*	10	Y	FACW
2	*Rubus flagellaris*	10	Y	FACU
3	*Lysimachia quadrifolia*	5	N	FACU
4	*Quercus rubra*	5	N	FACU
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		30	= Total Cover	

Woody Vine Stratum	Plot Size (10')	Absolute % Cover	Dominant Species	Indicator Staus
1	*Toxicodendron radicans*	10	Y	FAC
2				
3				
4				
5				
		10	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	10	25
Sapling/Shrub Stratum	0	0
Herb Stratum	6	15
	2	5

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)

OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	10	x 3 =	30
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column totals	90 (A)		330 (B)

Prevalence Index = B/A = 3.67

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** UP-12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-1								organic material
1-15	10YR 2/2							f-sand, some silt, few m-gravel, dk brown, dry
15-18	10YR 4/6							f-sand, lt brown, dry

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

ATTACHMENT B

Photograph Log



Photo #1: #N/A #N/A #N/A

#N/A



Photo #2: Date - 5/23/2012 Direction - West File - DSCN1251

Description - View west along wetland boundary near toe of slope on edge of pond at Railroad Roundhouse.



Photo #3: Date - 5/23/2012 Direction - South File - DSCN1252

Description - View of upland plot 2 (UP-2); wetland continues east and west.



Photo #4: Date - 5/23/2012 Direction - South File - DSCN1254

Description - View south from wetland line (left of frame), showing sandy trail running to the left of drainage rip-rap.



Photo #5: Date - 5/17/2012 Direction - South File - Picture 109

Description - View of rip-rap where the drainage source drains to pond.



Photo #6: Date - 5/17/2012 Direction - Southeast File - Picture 115

Description - Southeast view of unnamed cove west of Railroad Roundhouse.



Photo #7: Date - 5/17/2012 Direction - East File - Picture 138

Description - Wetland plot 4 (WET-4).

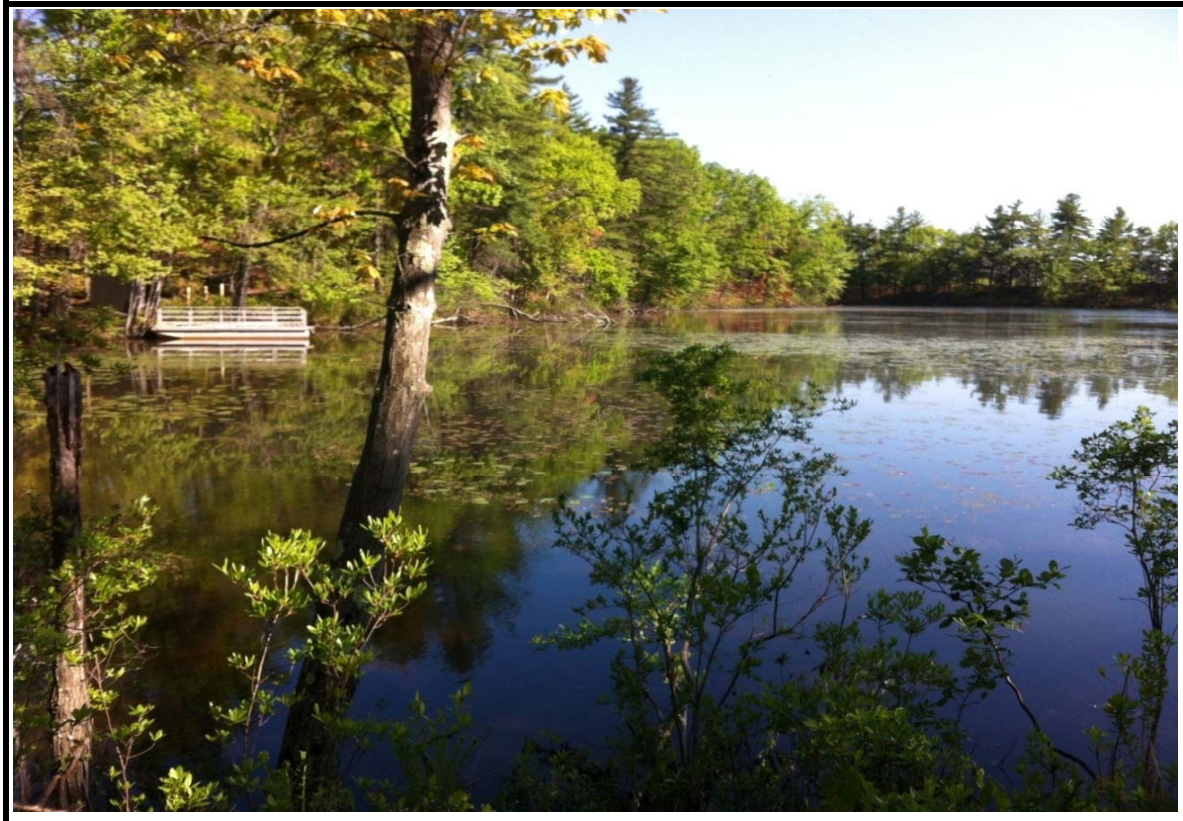

Photo #8: Date - 5/17/2012 Direction - Northeast File - Picture 123

Description - View of Red Cove. Wetland is only in capillary fringe of pond.

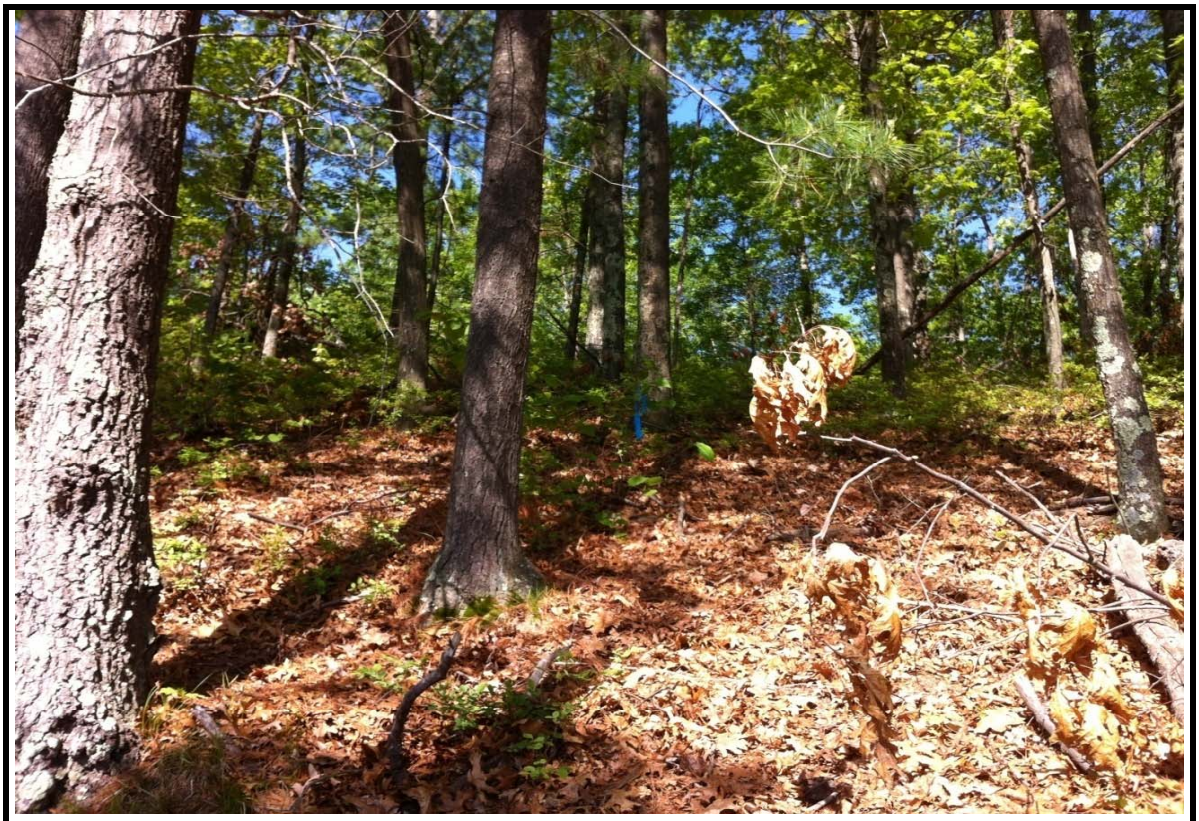

Photo #9: Date - 5/17/2012 Direction - West File - Picture 137

Description - Upland plot 6 (UP-6).



Photo #10: Date - 6/13/2013 Direction - Northeast File - PTDC0139

Description - Wetland plot 7 (WET-7), showing elevated water level in pond due to flooding



Photo #11: Date - 6/13/2013 Direction - Northwest File - PTDC0141

Description - View of forested floodplain on the south side of the Nonacoicus Brook dam.

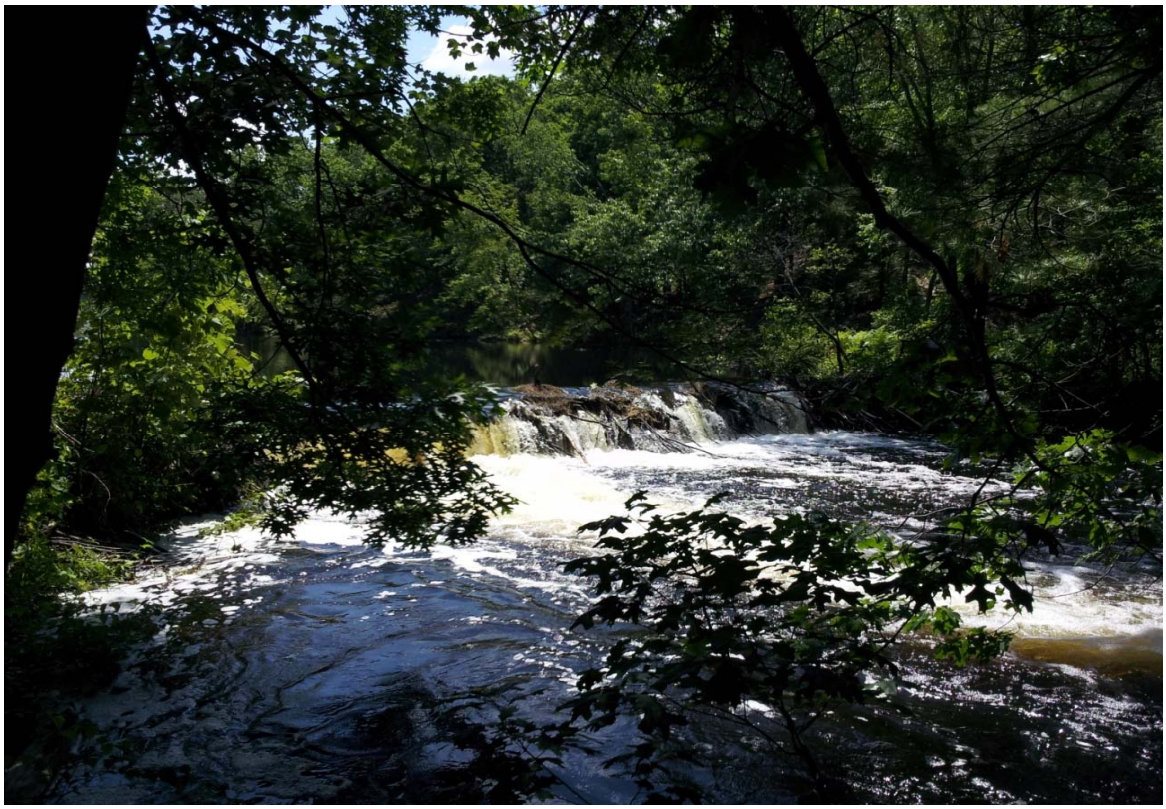

Photo #12: Date - 6/19/2013 Direction - South File - 20130619_125534

Description - View of Nonacoicus Brook dam from the northern bank.



Photo #13: Date - 6/19/2013 Direction - Northwest File - 20130619_120931

Description - View of wetland line along northern pond edge leading towards dam.



Photo #14: Date - 6/19/2013 Direction - Southeast File - 20130619_114220

Description - Southeast view of pond near the dam at the northwestern edge.

APPENDIX C

Surface Water Monitoring Forms

(See CD Included Separately)

Sovereign Consulting Inc.
16 Chestnut Street, Suite 520
Foxboro, MA 02035
508-339-3200

TURBITITY MONITORING LOG SHEET

Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

Project Name: AC001.005	Project location: PSP	Date: 7/30/13

LMS
EEF

SW10					
Time: 1220	Turb: ~~26.33~~ 9.0	Temp: 26.33	DO: 6.38 mg/L	Weather/Comments: Clear, 80	
~~Time:~~	~~Turb:~~	~~Temp:~~	~~DO:~~	~~Weather/Comments:~~	Sample 1220

SW11					
Time: 1100	Turb: 4.2 NTU	Temp: 25.18	DO: 6.95 mg/L	Weather/Comments:	clear, 80°, 6" deep sample collected 1100
~~Time:~~	~~Turb:~~	~~Temp:~~	~~DO:~~	~~Weather/Comments:~~	

SW12					
Time: 1115	Turb: 3.9 NTU	Temp: 25.24	DO: 7.10 mg/L	Weather/Comments:	clear, 80°, 1ft deep sample collected @ 1115
~~Time:~~	~~Turb:~~	~~Temp:~~	~~DO:~~	~~Weather/Comments:~~	

SW13					
Time: 1120	Turb: 3.0	Temp: 25.30	DO: 6.74 mg/L	Weather/Comments:	Clear, 80°, 1ft Deep Sample @ 1120
~~Time:~~	~~Turb:~~	~~Temp:~~	~~DO:~~	~~Weather/Comments:~~	

Initial Calibration

Turb-0	Turb-126
0	126

Location ~~SW-11~~ used for MS/MSD & DUP [redacted] (Time of DUP: 1110)

All samples Unfiltered, submitted for Total As.

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Foxboro, MA 02035
508-339-3200

SURFACE WATER LOG SHEET

Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

Project Name:	Project location:	Personnel:	Date:
TO-05	BSP	EF / BS	08-01-13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0
Turbitity 126	126	124
DO 100%	100.9	

SW10 SW-11				
Time: 0915	Turb: 3.9	Temp: 24.74	DO: 6.69	Weather/Comments: Sun, 80, 6" Deep

SW11 SW-10				
Time: 1023	Turb: 4.3	Temp: 25.51	DO: 6.65	Weather/Comments: Sun, 80, 12" Deep

SW12				
Time: 0925	Turb: 3.8	Temp: 24.78	DO: 6.~~9~~23	Weather/Comments: Sun, 80, 12" Deep

SW13				
Time: 0930	Turb: 2.8	Temp: 24.89	DO: 6.35	Weather/Comments: Sun 80, 12" Deep

MS/MSD Collected	
Well ID:	~~DUP~~ SW11

Dup Collected	
Well ID:	SW11
Time:	0920

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

Railroad Access
Lenny

Sovereign Consulting Inc.
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Foxboro, MA 02035
508-339-3200

SURFACE WATER LOG SHEET

Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

Project Name: AC001.005	Project location: PSP	Personnel: LMS, STL	Date: 8/9/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0.5	2.1
Turbitity 126	124.7	125.8
DO 100%	100.7	101.1

SW10				
Time: 0950 (13)	Turb: 2.1 NTU	Temp: 23.77	DO: 6.56 mg/L	Weather/Comments: rain, 75°

SW11				
Time: 0905	Turb: 1.9	Temp: 24.02	DO: 7.50	Weather/Comments: rain, 75°

SW12				
Time: 0915	Turb: 1.5	Temp: 23.97	DO: 8.59	Weather/Comments: rain, 75°

SW13				
Time: 0925	Turb: 2.7	Temp: 24.01	DO: 6.88	Weather/Comments: rain, 75°

MS/MSD Collected	
Well ID:	N/A

Dup Collected	
Well ID:	N/A
Time:	

per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

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508-339-3200

SURFACE WATER LOG SHEET

Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

Project Name: AC001.005	Project location: PSP	Personnel: LS, EF	Date: 8/15/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	~~12.6~~ 3.2
Turbitity 126	126.1	129.6
DO 100%	100.3	100.8

SW10					
Time: ~~1005~~ 1320	Turb: ~~8~~ 7.2 NTU	Temp: ~~22.96~~ 26.05 °F	DO: 6.26 mg/L	Weather/Comments:	clear, 80

SW11					
Time: 1055	Turb: 3.5 ntu	Temp: ~~22.96~~ (LS) 23.04	DO: ~~7.48~~ (LS) 7.31 mg/L	Weather/Comments:	clear, 80°

SW12					
Time: 1050	Turb: 5.6 ntu	Temp: 22.97	DO: 7.65 mg/L	Weather/Comments:	clear, 80

SW13					
Time: 1045	Turb: 3.9 ntu	Temp: 22.96	DO: 7.48 mg/L	Weather/Comments:	clear, 80°

MS/MSD Collected	
Well ID:	

Dup Collected	
Well ID:	
Time:	

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

water level up ~6" in brook - Day 2 pumping
45 min fish survey yielded no dead fish - water calm

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Foxboro, MA 02035
508-339-3200

SURFACE WATER LOG SHEET

Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

Project Name: AC001.05A	Project location: PSP	Personnel: LS, AT	Date: 8/16/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.6
Turbitity 126	126.0	128.1
DO 100%	100.6%	102.0 %

SW10							
Time: 11:15	Turb: 6.0	Temp: 22.32°C	DO: 6.86 mg/L	Weather/Comments:	~ 76° F

SW11							
Time: 12:10	Turb: 4.6	Temp: 23.49°C	DO: 7.45 mg/L	Weather/Comments:	~80°F

SW12							
Time: 12:05	Turb: 1.8	Temp: 23.40°C	DO: 7.33 mg/L	Weather/Comments:	~80°F

SW13							
Time: 12:00	Turb: 1.8	Temp: 23.42°C	DO: 6.99 mg/L	Weather/Comments:	~80°F

MS/MSD Collected	
Well ID:	

N/A

Dup Collected	
Well ID:	
Time:	

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

45 min fish survey yielded no dead fish - water calm

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SURFACE WATER LOG SHEET

Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

Project Name: AC001.005	Project location: PSP	Personnel: LMS, DM	Date: 8/19/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.3
Turbitity 126	126	124.7
DO 100%	100.1	100.5

SW10					
Time: 1400	Turb: 2.3 ntu	Temp: 24.55°	DO: 8.26 mg/L	Weather/Comments:	~~clear~~ mostly cloudy, 80°

SW11					
Time: 1330	Turb: 3.5 ntu	Temp: 26.36°	DO: 7.63 mg/L	Weather/Comments:	mc, 80°

SW12					
Time: 1325	Turb: 3.6 ntu	Temp: 26.44°	DO: 7.10 mg/L	Weather/Comments:	mc, 80°

SW13					
Time: 1320	Turb: 1.9 ntu	Temp: 26.37°	DO: 7.10 mg/L	Weather/Comments:	mc, 80°

MS/MSD Collected	
Well ID:	SW11

Dup Collected	
Well ID:	SW13
Time:	1325

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

Due to reduced pumping into Brook, water level returned to original height

2.5 Hr shoreline survey – no dead fish, ~~absent~~ some mussels noted (eastern floater, no T&E species)

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Foxboro, MA 02035
508-339-3200

SURFACE WATER LOG SHEET

Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

Project Name:	Project location:	Personnel:	Date:
AC001.005	PSP	LMS, DM	8/20/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.1
Turbitity 126	126	124.7
DO 100%	100.9	101.3

SW10							
Time: 1145	Turb: 2.3 ntu	Temp: 24.50°	DO: 8.60 mg/L	Weather/Comments: clear, 85°

SW11							
Time: 1055	Turb: 4.4 ntu	Temp: 24.84°	DO: 7.50	Weather/Comments: clear, 85°

SW12							
Time: 1050	Turb: 3.2 ntu	Temp: 24.77°	DO: 7.20	Weather/Comments: clear, 85°

SW13							
Time: 1045	Turb: 3.3 ntu	Temp: 24.52°	DO: 7.08	Weather/Comments: clear, 85°

MS/MSD Collected	
Well ID:	

Dup Collected	
Well ID:	
Time:	

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min. fish survey conducted, no dead fish collected, water calm.

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508-339-3200

SURFACE WATER LOG SHEET

Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

Project Name:	Project location:	Personnel:	Date:
AC001.005	PSP	LMS, DM	8/21/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.2
Turbitity 126	126	125.7
DO 100%	101.3	103.1

SW10				
Time: 10	Turb: 4.1 ntu	Temp: 26.20	DO: 7.72 mg/L	Weather/Comments: clear, 85°, calm

SW11				
Time: 1105	Turb: 5.2 ntu	Temp: 26.52	DO: 7.56 mg/L	Weather/Comments: clear, 85°, calm

SW12				
Time: 1100	Turb: 4.2 ntu	Temp: 26.44	DO: 7.39 mg/L	Weather/Comments: clear, 85°, calm

SW13				
Time: 1055	Turb: 5.1 ntu	Temp: 26.26	DO: 7.03 mg/L	Weather/Comments: clear, 85° calm

MS/MSD Collected	
Well ID:	

Dup Collected	
Well ID:	
Time:	

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min. fish survey conducted, no dead fish collected, water calm
noted sheen on far north + east sides of pond in muck + on SW – appears to break up and reform, unlike biological sheen or oil.

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Foxboro, MA 02035
508-339-3200

SURFACE WATER LOG SHEET

Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

Project Name: AC001.005	Project location: PSP	Personnel: LMS, DM	Date: 8/22/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	
Turbitity 126	126	
DO 100%	101.3	

SW10				
Time: 1120	Turb: 3.2 ntu	Temp: 25.28°	DO: 6.08 mg/L	Weather/Comments: clear, 85°, calm

SW11				
Time: 1042	Turb: 6.6 ntu	Temp: 24.98°	DO: 5.51 mg/L	Weather/Comments: clear, 85°, calm

SW12				
Time: 1037	Turb: 5.9 ntu	Temp: 25.11°	DO: 5.29 mg/L	Weather/Comments: clear, 85°, calm

SW13				
Time: 1030	Turb: 6.2 ntu	Temp: 24.96°	DO: 5.41 mg/L	Weather/Comments: clear, 85°, calm

MS/MSD Collected	
Well ID:	

Dup Collected	
Well ID:	
Time:	

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

SW @ SW11 down ~ 4" from yesterday - mussels surfacing. Water increases in depth towards SW13.

30 min fish survey - no dead fish found, water calm
Pond water down approx 2-3" from yesterday
Noted DO lower at sampling stations than in previous days.

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508-339-3200

SURFACE WATER LOG SHEET

Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

Project Name:	Project location:	Personnel:	Date:
AC001.005	PSP	LMS, DM	8/23/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.4
Turbitity 126	126	125.1
DO 100%	100.9	101.3

SW10				
Time: 1115	Turb: 9.8	Temp: 24.66	DO: 5.70	Weather/Comments: clear, 75°, wind 15mph

SW11				
Time: 1016	Turb: 11.4	Temp: 24.36	DO: 5.85	Weather/Comments: clear, 75°, wind 5 mph

SW12				
Time: 1007	Turb: 8.4	Temp: 24.14	DO: 5.60	Weather/Comments: clear, 75°, wind 5 mph

SW13				
Time: 1001	Turb: 8.5	Temp: 23.93	DO: 5.27	Weather/Comments: clear, 75°, wind 5 mph

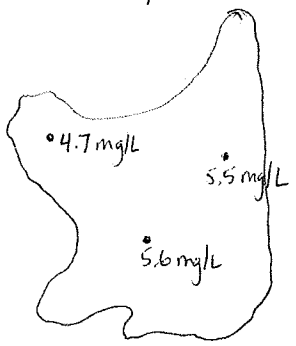
MS/MSD Collected	
Well ID:	

N/A per RL

Dup Collected	
Well ID:	
Time:	

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

Reduced DO levels observed in pond as well as brook. A few DO readings collected from pond @ 6"-1' below surface during fish survey. Approx locations:



30 min fish survey conducted - no dead fish found, wind 15 mph, some current

4.7
5.6
5.5

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SURFACE WATER LOG SHEET

Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

Project Name:	Project location:	Personnel:	Date:
AC001.005	PSP	LMS, AT	8/26/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	1.0
Turbitity 126	126	123.9
DO 100%	101.3	101.0

SW10					
Time: 0920	Turb: 11.0 ntu	Temp: 22.75°	DO: 5.78 mg/L	Weather/Comments:	65° overcast, 5 mph breeze

SW11					
Time: 1055	Turb: 8.6	Temp: 22.73°	DO: 7.52	Weather/Comments:	75°, pc, 5 mph wind

SW12					
Time: 1050	Turb: 8.5	Temp: 22.65	DO: 7.07	Weather/Comments:	70°, pc, 5 mph wind

SW13					
Time: 1042	Turb: 8.3	Temp: 22.38°	DO: 6.85	Weather/Comments:	70°, pc, 5 mph wind

MS/MSD Collected	
Well ID:	

Dup Collected	
Well ID:	
Time:	

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min survey for fish - no deceased fish found, however 2 dead fish found in brook, likely the result of the ~~pst~~ pumps sucking them in and dropping them in the brook.

DO readings appear to be rising in brook.

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Project Name: AC001.005	Project location: PSP	Personnel: LMS, DM	Date: 8/27/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.8
Turbitity 126	126	125.0
DO 100%	100.7	97.3

SW10				
Time: 0930	Turb: 10.1 ntu	Temp: 23.66°	DO: 6.09 mg/L	Weather/Comments: pc, 80°, 5 mph wind

SW11				
Time: 1018	Turb: 10.4 ntu	Temp: 24.46 °C	DO: 6.75 mg/L	Weather/Comments: pc, 80°, 5 mph

SW12				
Time: 1012	Turb: 10.8 Ntu	Temp: 24.38°C	DO: 6.59 mg/L	Weather/Comments: pc, 80°, 5 mph

SW13				
Time: 1007	Turb: 10.6 ntu	Temp: 24.16°C	DO: 6.60 mg/L	Weather/Comments: pc, 80°, 5 mph

MS/MSD Collected	
Well ID:	SW11

Dup Collected	
Well ID:	SW12
Time:	10:14

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey yielded no deceased fish, slight breeze, water calm

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Holyoke, MA 01040
413-540-0650

Project Name: AC001.005	Project location: PSP	Personnel: LMS, AT	Date: 8/28/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	1.0
Turbitity 126	126	125.5
DO 100%	100.8	100.3

~~SW10~~ SW13 (LMS)

Time:	Turb:	Temp:	DO:	Weather/Comments:
9:42	11.6	23.35 °C	5.62 mg/L	clear, 85°, calm

SW11

Time:	Turb:	Temp:	DO:	Weather/Comments:
9:37	8.6	23.15 °C	4.38 mg/L	clear, 85°, calm

SW12

Time:	Turb:	Temp:	DO:	Weather/Comments:
9:32	9.5	23.12 °C	4.80 mg/L	clear, 85°, calm

~~SW13~~ SW10 (LMS)

Time:	Turb:	Temp:	DO:	Weather/Comments:
9:00	12.2	23.84 °C	6.21 mg/L	clear, 85°, calm

MS/MSD Collected	
Well ID:	

Dup Collected	
Well ID:	
Time:	

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey yielded no deceased fish, water calm

DO appears to be dropping in brook, no pumping/discharge at time of sampling, water at lowest level yet in brook, ~4", mussels exposed in various areas.

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SURFACE WATER LOG SHEET

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4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

Project Name:	Project location:	Personnel:	Date:
AC001.005	PSP	LMS AT	8/29/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.1
Turbitity 126	126	128.3
DO 100%	101.2	100.3

SW10					
Time: 9:03 am	Turb: 11.9	Temp: 23.83 °C	DO: 4.82 mg/L	Weather/Comments: ~68°F	Overcast

SW11					
Time: 9:42 am	Turb: 14.2	Temp: 22.86 °C	DO: 6.5 mg/L	Weather/Comments: ~68°F	Overcast

SW12					
Time: 9:37 am	Turb: 10.3	Temp: 22.91 °C	DO: 5.74 mg/L	Weather/Comments: ~68°F	Overcast

SW13					
Time: 9:33 am	Turb: 8.7	Temp: 22.92 °C	DO: 5.35 mg/L	Weather/Comments: ~68°F	Overcast

MS/MSD Collected	
Well ID:	

Dup Collected	
Well ID:	
Time:	

NA per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey yielded no deceased fish, water calm

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Holyoke, MA 01040
413-540-0650

Project Name:	Project location:	Personnel:	Date:
AC001.005	PSP	LMS, DM	8/30/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.2
Turbitity 126	126	127.8
DO 100%	101.0	101.3

SW10				
Time: ~~0954~~	Turb: ~~19.6~~	Temp: 20.88	DO: ~~3.54~~	Weather/Comments: drifted too close to shore, ~~data~~ twb & DO data
0958	12.9		3.97	recollected further out from shore, temp same

SW11				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0912	15.1	19.43	5.45	clear, 80°, calm

SW12				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0906	10.3	19.60	3.49	clear, 80°, calm

SW13				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0859	11.7	19.35	4.61	clear, 80°, calm

MS/MSD Collected	
Well ID:	

Dup Collected	
Well ID:	
Time:	

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey completed, no deceased fish found, water/wind calm

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Project Name:	Project location:	Personnel:	Date:
ACO01.05A	PSP	LMS, DM	9/3/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.5
Turbitity 126	126	125.7
DO 100%	100.4	101.2

SW10				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0934	26.0	24.84	4.95	pc, 85°, calm

SW11				
Time:	Turb:	Temp:	DO:	Weather/Comments:
1022	22.8	25.79	7.58	pc, 85°, calm

SW12				
Time:	Turb:	Temp:	DO:	Weather/Comments:
1016	20.3	25.26	6.68	pc, 85°, calm

SW13				
Time:	Turb:	Temp:	DO:	Weather/Comments:
1007	18.4	24.87	6.70	pc, 85°, calm

MS/MSD Collected	
Well ID:	SW11

Dup Collected	
Well ID:	SW13 1009
Time:	

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey completed, no deceased fish found, water calm, no current

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Project Name:	Project location:	Personnel:	Date:
AECOM.05A	PSP	LMS	9/4/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	
Turbitity 126	126	
DO 100%	100.7	

SW10

Time: Turb: Temp: DO: Weather/Comments: clear, 80°, 10-15 mph wind
Not collected - location unavailable by boat, sample will be collected 9/5/13

SW11

Time: 0900 Turb: 20.4 ntu Temp: 21.13° DO: 1.86 mg/L Weather/Comments: clear, 80°, 10-15 mph wind

SW12

Time: 0850 Turb: 38.3 ntu Temp: 20.01° DO: 1.36 mg/L Weather/Comments: clear, 80°, 10-15 mph wind

SW13

Time: 0840 Turb: 21.4 ntu Temp: 20.82° DO: 1.69 mg/L Weather/Comments: clear, 80°, 10-15 mph wind

MS/MSD Collected	
Well ID:	

Dup Collected	
Well ID:	
Time:	

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

Brook conditions: water @ lowest level yet (~2-3", mostly pools w/out connectivity), many mussel beds exposed. Photos taken.

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Project Name:	Project location:	Personnel:	Date:
ACOL-05A	PSP	EEF	09.05.13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	-0.6
Turbitity 126	126	125.1
DO 100%	100.4	103.1

SW10				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0918	23.0	22.0	5.19	Cloudy w/ AM 70° Showers

SW11				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0952	21.8	18.09	10.03	SAA

SW12				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0947	17.5	20.05	7.01	SAA

SW13				
Time:	Turb: 15.9	Temp:	DO:	Weather/Comments:
0943	leaving	18.07	9.93	SAA

MS/MSD Collected	
Well ID:	

Dup Collected	
Well ID:	
Time:	

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

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Project Name:	Project location:	Personnel:	Date:
AC001.05A	PSP	BAS	09-06-13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0
Turbitity 126	126	125.5
DO 100%	101.3	101.7

SW10 PSP-SW10-090613

Time:	Turb:	Temp:	DO:	Weather/Comments:
09:10	20.8	18.50	6.63	Sunny 61°F

SW11 PSP-SW11-090613

Time:	Turb:	Temp:	DO:	Weather/Comments:
09:31	19.1	17.30	11.09	Sunny 61°F

SW12 PSP-SW12-090613

Time:	Turb:	Temp:	DO:	Weather/Comments:
09:36	14.6	13.22	11.60	Sunny 61°F

SW13 PSP-SW13-090613

Time:	Turb:	Temp:	DO:	Weather/Comments:
09:43	14.2	17.48	8.58	Sunny 61°F

MS/MSD Collected	
Well ID:	

Dup Collected	
Well ID:	
Time:	

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

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Project Name:	Project location:	Personnel:	Date:
AC001.05A	PSP	LMS/DM	9/10/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.5
Turbitity 126	126	124.7
DO 100%	101.4	101.3

SW10				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0945	18.8	18.63	5.58	mostly cloudy, 70°, 10-15 mph wind

SW11				
Time:	Turb:	Temp:	DO:	Weather/Comments:
1031	15.5	18.46	8.02	mc, 70°, 10-15 mph

SW12				
Time:	Turb:	Temp:	DO:	Weather/Comments:
1026	17.1	18.49	7.98	mc, 70°, 10-15 mph

SW13				
Time:	Turb:	Temp:	DO:	Weather/Comments:
1019	18.8	18.42	7.88	mc, 70°, 10-15 mph

MS/MSD Collected	
Well ID:	SW11

Dup Collected	
Well ID:	SW13
Time:	1018

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

4" & 6" pumps running upon arrival, water in brook up by ~6" w/ flow

30 min fish survey yielded no deceased fish, wind ~15mph, current

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SURFACE WATER LOG SHEET

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413-540-0650

Project Name:	Project location:	Personnel:	Date:
AC001.005	PSP	LMS, DM	9/13/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.5
Turbitity 126	126	125.7
DO 100%	99.4	99.5

SW10				
Time: 0932	Turb: 20.2	Temp: 24.42	DO: 5.17	Weather/Comments: pc, 80°, calm

SW11				
Time: 1020	Turb: 17.5	Temp: 24.71	DO: 7.23	Weather/Comments: pc, 80°, calm

SW12				
Time: 1008	Turb: 22.0	Temp: 24.44	DO: 6.61	Weather/Comments: pc, 80°, calm

SW13				
Time: 1003	Turb: 19.1	Temp: 24.19	DO: 6.38	Weather/Comments: pc, 80°, calm

MS/MSD Collected	
Well ID:	

Dup Collected	
Well ID:	
Time:	

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

Previous night, heavy rains ~ approx 4" rainfall on pond.
30 min fish survey yielded no deceased fish, water calm

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413-540-0650

Project Name:	Project location:	Personnel:	Date:
AC001.05A	PSP	LMS, DM	9/17/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.5
Turbitity 126	126.0	125.4
DO 100%	102.2	102.1

SW10				
Time: 0935	Turb: 14.1 ntu	Temp: 15.75°	DO: 5.60	Weather/Comments: clear, 60°, 10-15 mph wind

SW11				
Time: 1016	Turb: 10.5 ntu	Temp: 14.78°C	DO: 8.08 mg/l	Weather/Comments: clear, 60°, 10-15 mph wind

SW12				
Time: 1011	Turb: 10.5 ntu	Temp: 14.38°C	DO: 7.96 mg/l	Weather/Comments: clear, 60°, 10-15 mph wind

SW13				
Time: 1004	Turb: 10.6 ntu	Temp: 14.30°C	DO: 7.77 mg/l	Weather/Comments: clear, 60°, 10-15 mph wind

MS/MSD Collected	
Well ID:	SW11

Dup Collected	
Well ID:	SW13
Time:	1005

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey yielded no deceased fish, some current/wind gusts

water level in brook @ dam elevated ~6", photo taken @ SW11.

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SURFACE WATER LOG SHEET

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413-540-0650

Project Name:	Project location:	Personnel:	Date:
AC001.005	PSP	LMS, DBM	9/19/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.2
Turbitity 126	126	125.7
DO 100%	101.4	101.1

SW10				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0918	9.2 ntu	16.77°C	6.45 mg/l	clear, 65°, wind 5 mph

SW11				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0958	19.7 ntu	15.67°C	6.49 mg/l	clear, 65°, wind 5 mph

SW12				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0951	17.9 ntu	15.14°C	5.85 mg/l	clear, 65°, wind 5 mph

SW13				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0944	16.8 ntu	14.71°C	5.60 mg/l	clear, 65°, wind 5 mph

MS/MSD Collected	
Well ID:	

N/A per RL

Dup Collected	
Well ID:	
Time:	

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey yielded no deceased fish

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SURFACE WATER LOG SHEET

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4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

Project Name:	Project location:	Personnel:	Date:
Accord SA	PSP	EF	9/24/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	5.6
Turbitity 126	126	120.54
DO 100%	100.6	98.0

SW10				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0912	13.70	15.45	7.11	Sun 55

SW11				
Time:	Turb:	Temp:	DO:	Weather/Comments:
1011	26.8	15.10	7.39	Sun 55

SW12				
Time:	Turb:	Temp:	DO:	Weather/Comments:
1003	23.5	14.43	6.49	Sun 55

SW13				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0955	12.70	13.70	6.23	Sun 55

MS/MSD Collected	
Well ID:	SW13

Dup Collected	
Well ID:	SW12
Time:	1003

* Stream bed below dam swollen approx 3-4 feet deep in ~~middle~~ middle. Could not walk to locations. Used canoe to get SW-11, 12 + 13

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

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SURFACE WATER LOG SHEET

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Holyoke, MA 01040
413-540-0650

Project Name: AC001.005	Project location: PSP	Personnel: WMS, RPM	Date: 9/27/2013

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.5
Turbitity 126	126	125.7
DO 100%	101.6	101.6

SW10				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0918	16.4 ntu	17.41 °C	5.93 mg/l	mostly cloudy, 60°, 5 mph wind

SW11				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0959	25.2 ntu	17.05 °C	6.31 mg/l	mostly cloudy, 60°, 5 mph wind

SW12				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0952	21.6 ntu	16.97°C	6.21 mg/l	mostly cloudy, 60°, 5 mph wind

SW13				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0945	22.3 ntu	16.92°C	5.85 mg/l	mostly cloudy, 60°, 5 mph wind

MS/MSD Collected	
Well ID:	

Dup Collected	
Well ID:	
Time:	

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey yielded no deceased fish, no current, calm

Beaver dam causing high water in brook near dam was destroyed/dismantled as of 9/26/13 and water levels at dam decreasing. Level approx 2' deep at time of sampling.

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413-540-0650

Project Name:	Project location:	Personnel:	Date:
AC001.05A	PSP	LMS, DM	10/1/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.3
Turbitity 126	126.0	126.0
DO 100%	100.7	100.3

SW10				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0914	13.4 ntu	15.94 °C	7.17 mg/l	clear, 60°, calm

SW11				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0954	14.8 ntu	15.27 °C	8.98 mg/l	clear, 60°, calm

SW12				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0947	15.1 ntu	15.00 °C	8.45 mg/l	clear, 60°, calm

SW13				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0939	12.2 ntu	14.77 °C	8.41 mg/l	0941 Field Dup clear, 60°, calm

MS/MSD Collected	
Well ID:	SW11

Dup Collected	
Well ID:	SW13
Time:	0941

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey yielded no deceased fish, water calm
water in brook down to 6", mud banks exposed

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SURFACE WATER LOG SHEET

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Project Name:	Project location:	Personnel:	Date:
Plow Shop Pond	ACool.00 5	WJB/LMS	10-3-13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0.0	0.2
Turbitity 126	126	126
DO 100%	101.5	101.5

SW10

Time: Turb: Temp: DO: Weather/Comments: Sunny 60's

inaccessible - no sample collected

SW11

Time: 08:50 Turb: 14.2 Temp: ~~15.98~~ 16.03 DO: 8.19 Weather/Comments:

SW12

Time: 08:45 Turb: 14.0 Temp: 15.98 DO: 7.90 Weather/Comments:

SW13

Time: 08:37 Turb: 14.3 Temp: 15.97 DO: 7.86 Weather/Comments:

MS/MSD Collected	
Well ID:	

Dup Collected	
Well ID:	
Time:	

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

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SURFACE WATER LOG SHEET

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413-540-0650

Project Name:	Project location:	Personnel:	Date:
ACOO1.05A	PSP	LMS, DPM	10/8/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.1
Turbitity 126	126	126
DO 100%	101.3	101.3

SW10				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0904	11.6 ntu	16.87 °C	5.96 mg/l	

SW11				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0956	14.5 ntu	16.09 °C	1.11 mg/l	

SW12				
Time:	Turb:	Temp:	DO:	Weather/Comments: Stagnant
0945	12.2 ntu	13.43 °C	0.99 mg/l	

SW13				
Time:	Turb:	Temp:	DO:	Weather/Comments: Water stagnant
0934	12.8 ntu	14.15 °C	1.50 mg/l	Field Dup

MS/MSD Collected	
Well ID:	SW11

Dup Collected	
Well ID:	SW13
Time:	0935

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30 min fish survey yielded no deceased fish. Water elevated in pond – pumps have been off for previous 5 days. Water level in brook at lowest level yet/ stagnant pools, despite rainfall. Photos taken.

Sovereign Consulting Inc.
16 Chestnut Street, Suite 520
Foxboro, MA 02035
508-339-3200

SURFACE WATER LOG SHEET

Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

Project Name:	Project location:	Personnel:	Date:
AC001.05A	PSP	LMS, DPM	10/11/13

Standard	Initial Calibration	Post Calibration
Turbitity 0	0	0.1
Turbitity 126	126	125.9
DO 100%	101.3	101.3

SW10				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0907	9.9 ntu	14.20 °C	7.50 mg/l	

SW11				
Time:	Turb:	Temp:	DO:	Weather/Comments:
1014	7.2 ntu	12.62 °C	1.17 mg/l	

SW12				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0957	5.7 ntu	11.71 °C	1.42 mg/l	

SW13				
Time:	Turb:	Temp:	DO:	Weather/Comments:
0939	9.5 ntu	11.88 °C	1.47 mg/l	

MS/MSD Collected	
Well ID:	

Dup Collected	
Well ID:	
Time:	

N/A per RL

ALL SAMPLES UNFILTERED, SUBMITTED FOR TOTAL ARSENIC

30-min fish survey yielded no dead fish. Water calm, no current
Pumps remain off, brook water level extremely low, dry in spots, mussel beds exposed

ANALYTICAL REPORT

Lab Number:	L1314587
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS, MA
Project Number:	AC001.005
Report Date:	08/05/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS, MA
Project Number: AC001.005

Lab Number: L1314587
Report Date: 08/05/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1314587-01	PSP-SW-11-080113	PLOW SHOP POND	08/01/13 09:15
L1314587-02	PSP-SW-12-080113	PLOW SHOP POND	08/01/13 09:25
L1314587-03	PSP-SW-13-080113	PLOW SHOP POND	08/01/13 09:30
L1314587-04	PSP-SW-10-080113	PLOW SHOP POND	08/01/13 10:23
L1314587-05	FD-080113	PLOW SHOP POND	08/01/13 09:20

Project Name: DEVENS, MA
Project Number: AC001.005

Lab Number: L1314587
Report Date: 08/05/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS, MA
Project Number: AC001.005
Lab Number: L1314587
Report Date: 08/05/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.
M2 Peak not found by automatic integration algorithm.
M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4 Poor automated baseline construction.
M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7 A qualifier ion was manually integrated (only for GC/MS data).
M8 Integration of individual analyte eluting on top of an unresolved complex.
M9 Other: Explain on chromatogram.

Metals

The ICSA, associated with L1314587-01 through -05, has a concentration greater than the LOD for Arsenic.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 08/05/13

METALS

Project Name: DEVENS, MA
Lab Number: L1314587
Project Number: AC001.005
Report Date: 08/05/13

SAMPLE RESULTS

Lab ID: L1314587-01
Client ID: PSP-SW-11-080113
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/01/13 09:15
Date Received: 08/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	14.16		ug/l	0.5000	0.0850	1	08/02/13 10:30	08/05/13 10:31	EPA 3020A	1,6020A	LR

Project Name: DEVENS, MA
Lab Number: L1314587
Project Number: AC001.005
Report Date: 08/05/13

SAMPLE RESULTS

Lab ID: L1314587-02
Client ID: PSP-SW-12-080113
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/01/13 09:25
Date Received: 08/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	10.26		ug/l	0.5000	0.0850	1	08/02/13 10:30	08/05/13 10:37	EPA 3020A	1,6020A	LR

Project Name: DEVENS, MA
Lab Number: L1314587
Project Number: AC001.005
Report Date: 08/05/13

SAMPLE RESULTS

Lab ID: L1314587-03
Client ID: PSP-SW-13-080113
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/01/13 09:30
Date Received: 08/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	9.466		ug/l	0.5000	0.0850	1	08/02/13 10:30	08/05/13 10:38	EPA 3020A	1,6020A	LR

Project Name: DEVENS, MA
Lab Number: L1314587
Project Number: AC001.005
Report Date: 08/05/13

SAMPLE RESULTS

Lab ID: L1314587-04
Client ID: PSP-SW-10-080113
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/01/13 10:23
Date Received: 08/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	8.517		ug/l	0.5000	0.0850	1	08/02/13 10:30	08/05/13 10:39	EPA 3020A	1,6020A	LR

Project Name: DEVENS, MA
Lab Number: L1314587
Project Number: AC001.005
Report Date: 08/05/13

SAMPLE RESULTS

Lab ID: L1314587-05
Client ID: FD-080113
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/01/13 09:20
Date Received: 08/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	12.30		ug/l	0.5000	0.0850	1	08/02/13 10:30	08/05/13 10:40	EPA 3020A	1,6020A	LR

Project Name: DEVENS, MA
Project Number: AC001.005
Lab Number: L1314587
Report Date: 08/05/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG626150-1										
Arsenic, Total	ND		ug/l	0.5000	0.0850	1	08/02/13 10:30	08/05/13 10:30	1,6020A	LR

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS, MA

Project Number: AC001.005

Lab Number: L1314587

Report Date: 08/05/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG626150-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	108		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS, MA
Project Number: AC001.005

Lab Number: L1314587
Report Date: 08/05/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG626150-4 WG626150-5 QC Sample: L1314587-01 Client ID: PSP-SW-11-080113												
Arsenic, Total	14.16	1000	1100	108		1147	113		80-120	4		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS, MA
Project Number: AC001.005

Lab Number: L1314587
Report Date: 08/05/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG626150-3 QC Sample: L1314587-01 Client ID: PSP-SW-11-080113						
Arsenic, Total	14.16	16.19	ug/l	13		20

Project Name: DEVENS, MA
Project Number: AC001.005

Lab Number: L1314587
Report Date: 08/05/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1314587-01A	Plastic 500ml HNO3 preserved	A	<2	4.2	Y	Absent	A2-DOD-AS-6020T(180)
L1314587-01B	Plastic 500ml HNO3 preserved	A	<2	4.2	Y	Absent	A2-DOD-AS-6020T(180)
L1314587-01C	Plastic 500ml HNO3 preserved	A	<2	4.2	Y	Absent	A2-DOD-AS-6020T(180)
L1314587-02A	Plastic 500ml HNO3 preserved	A	<2	4.2	Y	Absent	A2-DOD-AS-6020T(180)
L1314587-03A	Plastic 500ml HNO3 preserved	A	<2	4.2	Y	Absent	A2-DOD-AS-6020T(180)
L1314587-04A	Plastic 500ml HNO3 preserved	A	<2	4.2	Y	Absent	A2-DOD-AS-6020T(180)
L1314587-05A	Plastic 500ml HNO3 preserved	A	<2	4.2	Y	Absent	A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS, MA	**Lab Number:**	L1314587
Project Number:	AC001.005	**Report Date:**	08/05/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS, MA	**Lab Number:**	L1314587
Project Number:	AC001.005	**Report Date:**	08/05/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS, MA	**Lab Number:**	L1314587
Project Number:	AC001.005	**Report Date:**	08/05/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — Work Class Chemistry

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Date Rec'd in Lab: 8/1/13

ALPHA Job #: L1314587

Client Information

Client: Sovereign Consulting
Address: 4 Open Square Way Suite 304
Holyoke MA
Phone: 413-540-0650
Email: RLeary@sovcon.com

Project Information

Project Name: Devens MA
Project Location: Plow Shop Pond
Project #: A001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 24hr 8/2/13

Additional Project Information:

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Total Arsenic by 6020	Sample Comments
14567 - 1	PSP-SW-11-080113	08.01.13	0915	SW	BS	X	
1	PSP-SW-11-080113-MS		0915			X	
1	PSP-SW-11-080113-MSD		0915			X	
2	PSP-SW-12-080113		0925			X	
3	PSP-SW-13-080113		0930			X	
4	PSP-SW-10-080113		1023			X	
5	FD-080113		0920			X	

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

TOTAL # BOTTLES

Container Type															
Preservative															

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
	8/1/13 11:40		8/1/13 11:40

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 8/1/13

ALPHA Job #: L1314587

ALPHA ANALYTICAL — Work to Close Chemistry
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: Sovereign Consulting
Address: 4 Open Square Way Suite 304, Holyoke MA
Phone: 413-540-0650
Email: RLeary@soncon.com

Additional Project Information:

Project Information

Project Name: Devens MA
Project Location: Plow Shop Pond
Project #: A001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 24hr 8/2/13

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC: ☐ 8260 ☐ 624 ☐ 524.2	SVOC: ☐ ABN ☐ PAH	METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15	METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13	EPH: ☐ Ranges & Targets ☐ Ranges Only	VPH: ☐ Ranges & Targets ☐ Ranges Only	☐ PCB ☐ PEST	TPH: ☐ Quant Only ☐ Fingerprint	Total Arsenic by 6020	Sample Comments	TOTAL # BOTTLES
14567 - 1	PSP-SW-11-080113	08.01.13	0915	SW	BS									X		
1	PSP-SW-11-080113-MS		0915											X		
1	PSP-SW-11-080113-MSD		0915											X		
2	PSP-SW-12-080113		0925											X		
3	PSP-SW-13-080113		0930											X		
4	PSP-SW-10-080113		1023											X		
5	FD-080113		0920											X		

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

| | | | | | | | | | | |

ANALYTICAL REPORT

Lab Number:	L1315383
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	08/12/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1315383-01	PSP-SW11-080913	PLOW SHOP POND	08/09/13 09:05
L1315383-02	PSP-SW12-080913	PLOW SHOP POND	08/09/13 09:15
L1315383-03	PSP-SW13-080913	PLOW SHOP POND	08/09/13 09:25
L1315383-04	PSP-SW10-080913	PLOW SHOP POND	08/09/13 09:50

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1315383
Project Number: AC001.005 **Report Date:** 08/12/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

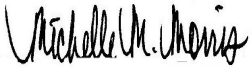
M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 08/12/13

METALS

Project Name: DEVENS
Lab Number: L1315383
Project Number: AC001.005
Report Date: 08/12/13

SAMPLE RESULTS

Lab ID: L1315383-01
Client ID: PSP-SW11-080913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/09/13 09:05
Date Received: 08/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	6.080		ug/l	0.5000	0.1610	1	08/09/13 15:11	08/09/13 18:50	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1315383
Project Number: AC001.005
Report Date: 08/12/13

SAMPLE RESULTS

Lab ID: L1315383-02
Client ID: PSP-SW12-080913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/09/13 09:15
Date Received: 08/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	5.750		ug/l	0.5000	0.1610	1	08/09/13 15:11	08/09/13 19:15	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1315383
Project Number: AC001.005
Report Date: 08/12/13

SAMPLE RESULTS

Lab ID: L1315383-03
Client ID: PSP-SW13-080913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/09/13 09:25
Date Received: 08/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	5.820		ug/l	0.5000	0.1610	1	08/09/13 15:11	08/09/13 19:21	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1315383
Project Number: AC001.005
Report Date: 08/12/13

SAMPLE RESULTS

Lab ID: L1315383-04
Client ID: PSP-SW10-080913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/09/13 09:50
Date Received: 08/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	5.900		ug/l	0.5000	0.1610	1	08/09/13 15:11	08/09/13 19:31	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1315383
Report Date: 08/12/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG627916-1										
Arsenic, Total	ND		ug/l	0.5000	0.1610	1	08/09/13 15:11	08/09/13 18:25	1,6020A	BM

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1315383

Report Date: 08/12/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG627916-2								
Arsenic, Total	105		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG627916-4 QC Sample: L1315383-01 Client ID: PSP-SW11-080913												
Arsenic, Total	6.080	120	140.1	112		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG627916-3 QC Sample: L1315383-01 Client ID: PSP-SW11-080913						
Arsenic, Total	6.080	6.010	ug/l	1		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315383
Report Date: 08/12/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1315383-01A	Plastic 250ml HNO3 preserved	A	<2	4.2	Y	Absent	DOD-AS-6020T(180)
L1315383-02A	Plastic 250ml HNO3 preserved	A	<2	4.2	Y	Absent	DOD-AS-6020T(180)
L1315383-03A	Plastic 250ml HNO3 preserved	A	<2	4.2	Y	Absent	DOD-AS-6020T(180)
L1315383-04A	Plastic 250ml HNO3 preserved	A	<2	4.2	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1315383
Project Number:	AC001.005	**Report Date:**	08/12/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1315383
Project Number:	AC001.005	**Report Date:**	08/12/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1315383
Project Number:	AC001.005	**Report Date:**	08/12/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE _____ OF _____

ALPHA ANALYTICAL — World-Class Chemistry

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Date Rec'd in Lab: 8/9/13

ALPHA Job #: L1315383

Client Information

Client: Sovereign Consulting
Address: 4 Open Square Way
Holyoke, MA
Phone: 413-540-0650
Email: RLeary@sovcon.com

Additional Project Information:

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 24 HR 8/12/13

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info | PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ANALYSIS

VOC: ☐ 8260 ☐ 624 ☐ 524.2
SVOC: ☐ ABN ☐ PAH
METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15
METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13
EPH: ☐ Ranges & Targets ☐ Ranges Only
VPH: ☐ Ranges & Targets ☐ Ranges Only
☐ PCB ☐ PEST
TPH: ☐ Quant Only ☐ Fingerprint
Total Arsenic by 6020

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

Sample Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Total Arsenic by 6020	TOTAL # BOTTLES
15383.1	PSP-SW11-080913	8/9/13	0905	SW	LMS	X	
2	PSP-SW12-080913	↓	0915	↓	↓	X	
3	PSP-SW13-080913	↓	0925	↓	↓	X	
4	PSP-SW10-080913	↓	0950	↓	↓	X	

Container Type	C
Preservative	P

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/9/13 1145	[signature]	8/9/13 1145

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1315898
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	08/16/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1315898-01	PSP-SW13-081513	PLOW SHOP POND	08/15/13 10:45
L1315898-02	PSP-SW12-081513	PLOW SHOP POND	08/15/13 10:50
L1315898-03	PSP-SW11-081513	PLOW SHOP POND	08/15/13 10:55
L1315898-04	PSP-SW10-081513	PLOW SHOP POND	08/15/13 13:20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1315898
Project Number: AC001.005 **Report Date:** 08/16/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

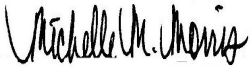
Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.
M2 Peak not found by automatic integration algorithm.
M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4 Poor automated baseline construction.
M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7 A qualifier ion was manually integrated (only for GC/MS data).
M8 Integration of individual analyte eluting on top of an unresolved complex.
M9 Other: Explain on chromatogram.

Metals

L1315898-01 through -04 and the associated batch QC have elevated detection limits for Arsenic due to matrix interferences encountered during analysis; all samples had detections above the elevated reporting limit. The WG629441-1 Method Blank, associated with L1315898-01 through -04, has a concentration greater than one half the reporting limit and <RL and is "J" qualified for Arsenic. The associated field sample results are "B" qualified if the concentrations detected are >½ RL and less than 10x the concentrations in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 08/16/13

METALS

Project Name: DEVENS
Lab Number: L1315898
Project Number: AC001.005
Report Date: 08/16/13

SAMPLE RESULTS

Lab ID: L1315898-01
Client ID: PSP-SW13-081513
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/15/13 10:45
Date Received: 08/15/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	7.878	B	ug/l	1.500	0.1610	1	08/16/13 08:17	08/16/13 11:45	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1315898
Project Number: AC001.005
Report Date: 08/16/13

SAMPLE RESULTS

Lab ID: L1315898-02
Client ID: PSP-SW12-081513
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/15/13 10:50
Date Received: 08/15/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	7.472	B	ug/l	1.500	0.1610	1	08/16/13 08:17	08/16/13 11:59	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1315898
Project Number: AC001.005
Report Date: 08/16/13

SAMPLE RESULTS

Lab ID: L1315898-03
Client ID: PSP-SW11-081513
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/15/13 10:55
Date Received: 08/15/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	7.023	B	ug/l	1.500	0.1610	1	08/16/13 08:17	08/16/13 12:03	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1315898
Project Number: AC001.005
Report Date: 08/16/13

SAMPLE RESULTS

Lab ID: L1315898-04
Client ID: PSP-SW10-081513
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/15/13 13:20
Date Received: 08/15/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	5.725	B	ug/l	1.500	0.1610	1	08/16/13 08:17	08/16/13 12:06	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1315898
Report Date: 08/16/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG629441-1										
Arsenic, Total	1.054	J	ug/l	1.500	0.1610	1	08/16/13 08:17	08/16/13 11:35	1,6020A	AK

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1315898

Report Date: 08/16/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG629441-2								
Arsenic, Total	89		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG629441-4 QC Sample: L1315898-01 Client ID: PSP-SW13-081513												
Arsenic, Total	7.878B	120	120.5	94		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG629441-3 QC Sample: L1315898-01 Client ID: PSP-SW13-081513						
Arsenic, Total	7.878B	7.724	ug/l	2		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315898
Report Date: 08/16/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1315898-01A	Plastic 250ml HNO3 preserved	A	<2	2.3	Y	Absent	DOD-AS-6020T(180)
L1315898-02A	Plastic 250ml HNO3 preserved	A	<2	2.3	Y	Absent	DOD-AS-6020T(180)
L1315898-03A	Plastic 250ml HNO3 preserved	A	<2	2.3	Y	Absent	DOD-AS-6020T(180)
L1315898-04A	Plastic 250ml HNO3 preserved	A	<2	2.3	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1315898
Project Number:	AC001.005	**Report Date:**	08/16/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1315898
Project Number:	AC001.005	**Report Date:**	08/16/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1315898
Project Number:	AC001.005	**Report Date:**	08/16/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE _____ OF _____

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Date Rec'd in Lab: 8/15/13

ALPHA Job #: L1315898

Client Information

Client: Sovereign Consulting

Address: 4 Open Square Way
Holyoke, MA

Phone: 413-540-0650

Email: RLeary@Savcon.com

Additional Project Information:

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: A0001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 24 HR 8/16/13

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ANALYSIS

- VOC: ☐ 8260 ☐ 624 ☐ 524.2
- SVOC: ☐ ABN ☐ PAH
- METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15
- METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13
- EPH: ☐ Ranges & Targets ☐ Ranges Only
- VPH: ☐ Ranges & Targets ☐ Ranges Only
- ☐ PCB ☐ PEST
- TPH: ☐ Quant Only ☐ Fingerprint
- Total Arsenic by 6020

SAMPLE INFO

Filtration
☐ Field
☐ Lab to do

Preservation
☐ Lab to do

Sample Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Total Arsenic by 6020	TOTAL # BOTTLES
15898-01	PSP-SW13-081513	8/15/13	1045	SW	LMS	X	
-02	PSP-SW12-081513	8/15/13	1050	SW	LMS	X	
-03	PSP-SWm11-081513	8/15/13	1055	SW	LMS	X	
-04	PSP-SW10-081513	8/15/13	1320	SW	EEF	X	

Container Type	P
Preservative	C

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
Erin Foy	8/15/13 1516	TJC	8/15/13 1516

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1315970
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	08/19/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1315970-01	PSP-SW10-081613	PLOW SHOP POND	08/16/13 11:15
L1315970-02	PSP-SW11-081613	PLOW SHOP POND	08/16/13 12:10
L1315970-03	PSP-SW12-081613	PLOW SHOP POND	08/16/13 12:05
L1315970-04	PSP-SW13-081613	PLOW SHOP POND	08/16/13 12:00

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1315970
Project Number:	AC001.005	**Report Date:**	08/19/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

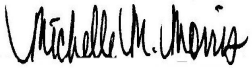
M9 Other: Explain on chromatogram.

Metals

L1315970-01 through -04 and the associated batch QC have elevated detection limits for Arsenic due to matrix interferences encountered during analysis; however, all samples had detections above the elevated reporting limit.

The WG629608-1 Method Blank, associated with L1315970-01 through -04, has a concentration greater than one half the reporting limit and is "J" qualified for arsenic. The associated field sample results are "B" qualified if the concentrations detected are >½ RL and less than 10x the concentrations in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 08/19/13

METALS

Project Name: DEVENS
Lab Number: L1315970
Project Number: AC001.005
Report Date: 08/19/13

SAMPLE RESULTS

Lab ID: L1315970-01
Client ID: PSP-SW10-081613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/16/13 11:15
Date Received: 08/16/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	9.116		ug/l	1.000	0.1610	1	08/16/13 15:30	08/17/13 11:42	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1315970
Project Number: AC001.005
Report Date: 08/19/13

SAMPLE RESULTS

Lab ID: L1315970-02
Client ID: PSP-SW11-081613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/16/13 12:10
Date Received: 08/16/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	8.948		ug/l	1.000	0.1610	1	08/16/13 15:30	08/17/13 11:56	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1315970
Project Number: AC001.005
Report Date: 08/19/13

SAMPLE RESULTS

Lab ID: L1315970-03
Client ID: PSP-SW12-081613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/16/13 12:05
Date Received: 08/16/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	8.120		ug/l	1.000	0.1610	1	08/16/13 15:30	08/17/13 12:00	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1315970
Project Number: AC001.005
Report Date: 08/19/13

SAMPLE RESULTS

Lab ID: L1315970-04
Client ID: PSP-SW13-081613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/16/13 12:00
Date Received: 08/16/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	8.673		ug/l	1.000	0.1610	1	08/16/13 15:30	08/17/13 12:03	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1315970
Report Date: 08/19/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG629608-1										
Arsenic, Total	0.7980	J	ug/l	1.000	0.1610	1	08/16/13 15:30	08/17/13 11:35	1,6020A	AK

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1315970

Report Date: 08/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG629608-2								
Arsenic, Total	102		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG629608-4 QC Sample: L1315970-01 Client ID: PSP-SW10-081613												
Arsenic, Total	9.116	120	133.6	104		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG629608-3 QC Sample: L1315970-01 Client ID: PSP-SW10-081613						
Arsenic, Total	9.116	9.095	ug/l	0		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1315970
Report Date: 08/19/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1315970-01A	Plastic 500ml HNO3 preserved	A	<2	5.4	Y	Absent	DOD-AS-6020T(180)
L1315970-02A	Plastic 500ml HNO3 preserved	A	<2	5.4	Y	Absent	DOD-AS-6020T(180)
L1315970-03A	Plastic 500ml HNO3 preserved	A	<2	5.4	Y	Absent	DOD-AS-6020T(180)
L1315970-04A	Plastic 500ml HNO3 preserved	A	<2	5.4	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1315970
Project Number:	AC001.005	**Report Date:**	08/19/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1315970
Project Number:	AC001.005	**Report Date:**	08/19/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1315970
Project Number:	AC001.005	**Report Date:**	08/19/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE _____ OF _____

Date Rec'd in Lab: 8/16/13

ALPHA Job #: L1315970

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: Sovereign Consulting

Address: 4 Open Square Way
Holyoke, MA

Phone: 413-540-0650

Email: RLeary@sovcon.com

Additional Project Information:

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 24 HR 8/19/13

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods

☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)

☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)

☐ Yes ☐ No NPDES RGP

☐ Other State /Fed Program _____ Criteria _____

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Total Arsenic by 6020	Sample Comments	TOTAL # BOTTLES
15970-1	PSP-SW10-081613	8/16/13	1115	SW	LMS	X		
2	PSP-SW11-081613		1210			X		
3	PSP-SW12-081613		1205			X		
4	PSP-SW13-081613		1200			X		
	Container Type					P		
	Preservative					C		

ANALYSIS: ☐ VOC: 8260 ☐ 624 ☐ 524.2 ☐ SVOC: ☐ ABN ☐ PAH ☐ METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15 ☐ METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13 ☐ EPH: ☐ Ranges & Targets ☐ Ranges Only ☐ VPH: ☐ Ranges & Targets ☐ Ranges Only ☐ PCB ☐ PEST ☐ TPH: ☐ Quant Only ☐ Fingerprint

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
	8/16/13 1430		8/16/13 1430

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1316109
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	08/20/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1316109-01	PSP-SW10-081913	PLOW SHOP POND	08/19/13 14:00
L1316109-02	PSP-SW11-081913	PLOW SHOP POND	08/19/13 13:30
L1316109-03	PSP-SW12-081913	PLOW SHOP POND	08/19/13 13:25
L1316109-04	PSP-SW13-081913	PLOW SHOP POND	08/19/13 13:20
L1316109-05	FD-081913	PLOW SHOP POND	08/19/13 13:35

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1316109
Project Number:	AC001.005	**Report Date:**	08/20/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

L1316109-01 through -05 and the associated batch QC have elevated detection limits for arsenic due to matrix interferences encountered during analysis; all samples had detections above the elevated reporting limit. The WG630101-1 Method Blank, associated with L1316109-01 through -05, has a concentration greater than one half the reporting limit and is "J" qualified for arsenic. The associated field sample results are "B" qualified if the concentrations detected are >½ RL and less than 10x the concentrations in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 08/20/13

METALS

Project Name: DEVENS
Lab Number: L1316109
Project Number: AC001.005
Report Date: 08/20/13

SAMPLE RESULTS

Lab ID: L1316109-01
Client ID: PSP-SW10-081913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/19/13 14:00
Date Received: 08/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	9.831	B	ug/l	2.000	0.1610	1	08/20/13 07:49	08/20/13 14:54	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1316109
Project Number: AC001.005
Report Date: 08/20/13

SAMPLE RESULTS

Lab ID: L1316109-02
Client ID: PSP-SW11-081913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/19/13 13:30
Date Received: 08/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	11.72	B	ug/l	2.000	0.1610	1	08/20/13 07:49	08/20/13 14:40	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1316109
Project Number: AC001.005
Report Date: 08/20/13

SAMPLE RESULTS

Lab ID: L1316109-03
Client ID: PSP-SW12-081913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/19/13 13:25
Date Received: 08/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	10.81	B	ug/l	2.000	0.1610	1	08/20/13 07:49	08/20/13 14:58	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1316109
Project Number: AC001.005
Report Date: 08/20/13

SAMPLE RESULTS

Lab ID: L1316109-04
Client ID: PSP-SW13-081913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/19/13 13:20
Date Received: 08/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	9.968	B	ug/l	2.000	0.1610	1	08/20/13 07:49	08/20/13 15:13	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316109
Report Date: 08/20/13

SAMPLE RESULTS

Lab ID: L1316109-05
Client ID: FD-081913
Sample Location: PLOW SHOP POND
Matrix: Water
Date Collected: 08/19/13 13:35
Date Received: 08/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	9.904	B	ug/l	2.000	0.1610	1	08/20/13 07:49	08/20/13 15:17	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316109
Report Date: 08/20/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-05 Batch: WG630101-1										
Arsenic, Total	1.796	J	ug/l	2.000	0.1610	1	08/20/13 07:49	08/20/13 14:26	1,6020A	AK

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1316109

Report Date: 08/20/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-05 Batch: WG630101-2								
Arsenic, Total	99		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG630101-3 WG630101-4 QC Sample: L1316109-02 Client ID: PSP-SW11-081913												
Arsenic, Total	11.72B	120	129.5	98		127.1	96		80-120	2		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316109
Report Date: 08/20/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316109-01A	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	DOD-AS-6020T(180)
L1316109-02A	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	DOD-AS-6020T(180)
L1316109-02B	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	DOD-AS-6020T(180)
L1316109-02C	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	DOD-AS-6020T(180)
L1316109-03A	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	DOD-AS-6020T(180)
L1316109-04A	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	DOD-AS-6020T(180)
L1316109-05A	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1316109
Project Number:	AC001.005	**Report Date:**	08/20/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316109
Project Number:	AC001.005	**Report Date:**	08/20/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316109
Project Number:	AC001.005	**Report Date:**	08/20/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE _____ OF _____

Date Rec'd in Lab: 8/19/13

ALPHA Job #: L1316109

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: Sovereign Consulting

Address: 4 Open Square Way
Holyoke, MA

Phone: 413-540-0650

Email: RLeary@sovcon.com

Additional Project Information:

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 8/20/13 24 HR

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ANALYSIS

VOC: ☐ 8260 ☐ 624 ☐ 524.2
SVOC: ☐ ABN ☐ PAH
METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15
METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13
EPH: ☐ Ranges & Targets ☐ Ranges Only
VPH: ☐ Ranges & Targets ☐ Ranges Only
☐ PCB ☐ PEST
TPH: ☐ Quant Only ☐ Fingerprint
Total Arsenic by 6020

SAMPLE INFO

Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

Sample Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Total Arsenic by 6020	TOTAL # BOTTLES
16109-01	PSP-SW10-081913	8/19/13	1450	SW	LS	X	
02	PSP-SW11-081913		1330			X	
02-03	PSP-SW11-081913-MS		1330			X	
02 04	PSP-SW11-081913-MSD		1330			X	
03 05	PSP-SW12-081913		1325			X	
04 06	PSP-SW13-081913		1320			X	
05	FD-081913		1335			X	

Container Type		P
Preservative		C

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/19/13 1650	William McClendon	8/19/13 1650

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1316164
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	08/21/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1316164-01	PSP-SW10-082013	PLOW SHOP POND	08/20/13 11:45
L1316164-02	PSP-SW11-082013	PLOW SHOP POND	08/20/13 10:55
L1316164-03	PSP-SW12-082013	PLOW SHOP POND	08/20/13 10:50
L1316164-04	PSP-SW13-082013	PLOW SHOP POND	08/20/13 10:45

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1316164
Project Number:	AC001.005	**Report Date:**	08/21/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 08/21/13

METALS

Project Name: DEVENS
Lab Number: L1316164
Project Number: AC001.005
Report Date: 08/21/13

SAMPLE RESULTS

Lab ID: L1316164-01
Client ID: PSP-SW10-082013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/20/13 11:45
Date Received: 08/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	8.920		ug/l	0.5000	0.1610	1	08/20/13 15:26	08/21/13 13:39	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316164
Project Number: AC001.005
Report Date: 08/21/13

SAMPLE RESULTS

Lab ID: L1316164-02
Client ID: PSP-SW11-082013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/20/13 10:55
Date Received: 08/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	9.640		ug/l	0.5000	0.1610	1	08/20/13 15:26	08/21/13 14:22	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316164
Project Number: AC001.005
Report Date: 08/21/13

SAMPLE RESULTS

Lab ID: L1316164-03
Client ID: PSP-SW12-082013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/20/13 10:50
Date Received: 08/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	9.160		ug/l	0.5000	0.1610	1	08/20/13 15:26	08/21/13 14:28	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316164
Project Number: AC001.005
Report Date: 08/21/13

SAMPLE RESULTS

Lab ID: L1316164-04
Client ID: PSP-SW13-082013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/20/13 10:45
Date Received: 08/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	8.750		ug/l	0.5000	0.1610	1	08/20/13 15:26	08/21/13 14:35	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316164
Report Date: 08/21/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG630304-1										
Arsenic, Total	0.2400	J	ug/l	0.5000	0.1610	1	08/20/13 15:26	08/21/13 13:27	1,6020A	BM

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1316164

Report Date: 08/21/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG630304-2								
Arsenic, Total	103		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG630304-4 QC Sample: L1316164-01 Client ID: PSP-SW10-082013												
Arsenic, Total	8.920	120	132.3	103		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG630304-3 QC Sample: L1316164-01 Client ID: PSP-SW10-082013						
Arsenic, Total	8.920	8.650	ug/l	3		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316164
Report Date: 08/21/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316164-01A	Plastic 250ml HNO3 preserved	A	<2	2.4	Y	Absent	DOD-AS-6020T(180)
L1316164-02A	Plastic 250ml HNO3 preserved	A	<2	2.4	Y	Absent	DOD-AS-6020T(180)
L1316164-03A	Plastic 250ml HNO3 preserved	A	<2	2.4	Y	Absent	DOD-AS-6020T(180)
L1316164-04A	Plastic 250ml HNO3 preserved	A	<2	2.4	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1316164
Project Number:	AC001.005	**Report Date:**	08/21/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316164
Project Number:	AC001.005	**Report Date:**	08/21/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316164
Project Number:	AC001.005	**Report Date:**	08/21/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE ____ OF ____

Date Rec'd in Lab: 8/20/13

ALPHA Job #: L1316164

ALPHA Analytical
World Class Chemistry
8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220
320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Client Information

Client: Sovereign Consulting
Address: 4 Open Square Way
Holyoke, MA
Phone: 413-540-0650
Email: RLeary@sovcon.com

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 24 HR
8/21/13

Additional Project Information:

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; Total Arsenic by 6020

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Total Arsenic by 6020	Sample Comments	TOTAL # BOTTLES
16164- 1	PSP-SW10-082013	8/20/13	1145	SW	LMS	X		
2	PSP-SW11-082013	8/20/13	1055	↓	↓	X		
3	PSP-SW12-082013	8/20/13	1050	↓	↓	X		
4	PSP-SW13-082013	8/20/13	1045	↓	↓	X		

	Total Arsenic by 6020
Container Type	P
Preservative	C

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/20/13 1330	[signature]	8/20/13 1330

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1316260
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	08/22/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1316260-01	PSP-SW10-082113	PLOW SHOP POND	08/21/13 10:05
L1316260-02	PSP-SW11-082113	PLOW SHOP POND	08/21/13 11:05
L1316260-03	PSP-SW12-082113	PLOW SHOP POND	08/21/13 11:00
L1316260-04	PSP-SW13-082113	PLOW SHOP POND	08/21/13 10:55

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1316260
Project Number:	AC001.005	**Report Date:**	08/22/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 08/22/13

METALS

Project Name: DEVENS
Lab Number: L1316260
Project Number: AC001.005
Report Date: 08/22/13

SAMPLE RESULTS

Lab ID: L1316260-01
Client ID: PSP-SW10-082113
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/21/13 10:05
Date Received: 08/21/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	8.920		ug/l	0.5000	0.1610	1	08/21/13 15:00	08/21/13 19:56	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316260
Project Number: AC001.005
Report Date: 08/22/13

SAMPLE RESULTS

Lab ID: L1316260-02
Client ID: PSP-SW11-082113
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/21/13 11:05
Date Received: 08/21/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	10.25		ug/l	0.5000	0.1610	1	08/21/13 15:00	08/21/13 20:40	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316260
Project Number: AC001.005
Report Date: 08/22/13

SAMPLE RESULTS

Lab ID: L1316260-03
Client ID: PSP-SW12-082113
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/21/13 11:00
Date Received: 08/21/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	9.800		ug/l	0.5000	0.1610	1	08/21/13 15:00	08/21/13 20:46	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316260
Project Number: AC001.005
Report Date: 08/22/13

SAMPLE RESULTS

Lab ID: L1316260-04
Client ID: PSP-SW13-082113
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/21/13 10:55
Date Received: 08/21/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	9.740		ug/l	0.5000	0.1610	1	08/21/13 15:00	08/21/13 20:52	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316260
Report Date: 08/22/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG630591-1										
Arsenic, Total	ND		ug/l	0.5000	0.1610	1	08/21/13 15:00	08/21/13 19:44	1,6020A	BM

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1316260

Report Date: 08/22/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG630591-2								
Arsenic, Total	104		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG630591-4 QC Sample: L1316260-01 Client ID: PSP-SW10-082113												
Arsenic, Total	8.920	120	140.9	110		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG630591-3 QC Sample: L1316260-01 Client ID: PSP-SW10-082113						
Arsenic, Total	8.920	9.130	ug/l	2		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316260
Report Date: 08/22/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316260-01A	Plastic 250ml HNO3 preserved	A	<2	5.3	Y	Absent	DOD-AS-6020T(180)
L1316260-02A	Plastic 250ml HNO3 preserved	A	<2	5.3	Y	Absent	DOD-AS-6020T(180)
L1316260-03A	Plastic 250ml HNO3 preserved	A	<2	5.3	Y	Absent	DOD-AS-6020T(180)
L1316260-04A	Plastic 250ml HNO3 preserved	A	<2	5.3	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1316260
Project Number:	AC001.005	**Report Date:**	08/22/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316260
Project Number:	AC001.005	**Report Date:**	08/22/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316260
Project Number:	AC001.005	**Report Date:**	08/22/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE_____ OF _____

Date Rec'd in Lab: 8/21/13

ALPHA Job #: L1316260

ALPHA ANALYTICAL — World Class Chemistry

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: Sovereign Consulting
Address: 4 Open Square Way, Holyoke, MA
Phone: 413-540-0650
Email: RLeary@sovcon.com

Additional Project Information:

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: ACOO1.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 24 HR 8/22/13

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC: ☐ 8260 ☐ 624 ☐ 524.2	SVOC: ☐ ABN ☐ PAH	METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15	METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13	EPH: ☐ Ranges & Targets ☐ Ranges Only	VPH: ☐ Ranges & Targets ☐ Ranges Only	☐ PCB ☐ PEST	TPH: ☐ Quant Only ☐ Fingerprint	Total Arsenic by 6020					SAMPLE INFO: Filtration ☐ Field ☐ Lab to do; Preservation ☐ Lab to do	TOTAL # BOTTLES
16260-1	PSP-SW10-082113	8/21/13	1005	SW	LMS									X						
2	PSP-SW11-082113	↓	1105	↓	↓									X						
3	PSP-SW12-082113		1100											X						
4	PSP-SW13-082113		1055											X						

Container Type: P
Preservative: C

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H= $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
	8/21/13 1410		8/21/13 1410

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1316360
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	08/23/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1316360-01	PSP-SW10-082213	PLOW SHOP POND	08/22/13 11:20
L1316360-02	PSP-SW11-082213	PLOW SHOP POND	08/22/13 10:42
L1316360-03	PSP-SW12-082213	PLOW SHOP POND	08/22/13 10:37
L1316360-04	PSP-SW13-082213	PLOW SHOP POND	08/22/13 10:30

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1316360
Project Number:	AC001.005	**Report Date:**	08/23/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 08/23/13

METALS

Project Name: DEVENS
Lab Number: L1316360
Project Number: AC001.005
Report Date: 08/23/13

SAMPLE RESULTS

Lab ID: L1316360-01
Client ID: PSP-SW10-082213
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/22/13 11:20
Date Received: 08/22/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	9.110		ug/l	0.5000	0.1610	1	08/22/13 14:28	08/23/13 14:16	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316360
Project Number: AC001.005
Report Date: 08/23/13

SAMPLE RESULTS

Lab ID: L1316360-02
Client ID: PSP-SW11-082213
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/22/13 10:42
Date Received: 08/22/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	10.27		ug/l	0.5000	0.1610	1	08/22/13 14:28	08/23/13 15:00	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316360
Project Number: AC001.005
Report Date: 08/23/13

SAMPLE RESULTS

Lab ID: L1316360-03
Client ID: PSP-SW12-082213
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/22/13 10:37
Date Received: 08/22/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	9.770		ug/l	0.5000	0.1610	1	08/22/13 14:28	08/23/13 15:06	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316360
Project Number: AC001.005
Report Date: 08/23/13

SAMPLE RESULTS

Lab ID: L1316360-04
Client ID: PSP-SW13-082213
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/22/13 10:30
Date Received: 08/22/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	9.460		ug/l	0.5000	0.1610	1	08/22/13 14:28	08/23/13 15:12	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316360
Report Date: 08/23/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG630881-1										
Arsenic, Total	ND		ug/l	0.5000	0.1610	1	08/22/13 14:28	08/23/13 14:04	1,6020A	BM

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1316360

Report Date: 08/23/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG630881-2								
Arsenic, Total	104		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG630881-4 QC Sample: L1316360-01 Client ID: PSP-SW10-082213												
Arsenic, Total	9.110	120	136.3	106		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG630881-3 QC Sample: L1316360-01 Client ID: PSP-SW10-082213						
Arsenic, Total	9.110	9.390	ug/l	3		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316360
Report Date: 08/23/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316360-01A	Plastic 250ml HNO3 preserved	A	<2	3.5	Y	Absent	DOD-AS-6020T(180)
L1316360-02A	Plastic 250ml HNO3 preserved	A	<2	3.5	Y	Absent	DOD-AS-6020T(180)
L1316360-03A	Plastic 250ml HNO3 preserved	A	<2	3.5	Y	Absent	DOD-AS-6020T(180)
L1316360-04A	Plastic 250ml HNO3 preserved	A	<2	3.5	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1316360
Project Number:	AC001.005	**Report Date:**	08/23/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316360
Project Number:	AC001.005	**Report Date:**	08/23/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316360
Project Number:	AC001.005	**Report Date:**	08/23/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE _____ OF _____

Date Rec'd in Lab: 8/22/13

ALPHA Job #: L1316360

ALPHA ANALYTICAL — World Class Chemistry

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: Sovereign Consulting
Address: 4 Open Square Way, Holyoke, MA
Phone: 413-540-0650
Email: RLeary@sovcon.com

Additional Project Information:

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 24 HR

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2 / SVOC: ☐ ABN ☐ PAH / METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15 / METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13 / EPH: ☐ Ranges & Targets ☐ Ranges Only / VPH: ☐ Ranges & Targets ☐ Ranges Only / ☐ PCB ☐ PEST / TPH: ☐ Quant Only ☐ Fingerprint / Total Arsenic by 6020	SAMPLE INFO: Filtration ☐ Field ☐ Lab to do; Preservation ☐ Lab to do	Sample Comments	TOTAL # BOTTLES
16360-1	PSP-SW10-082213	8/22/13	1120	SW	LMS	X		
2	PSP-SW11-082213	↓	1042	↓	↓	X		
3	PSP-SW12-082213		1037			X		
4	PSP-SW13-082213		1030			X		
	Container Type					P		
	Preservative					C		

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/22/13 1330	[signature]	8/22/13 1330

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1316476
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	08/26/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1316476-01	PSP-SW10-082313	PLOW SHOP POND	08/23/13 11:15
L1316476-02	PSP-SW11-082313	PLOW SHOP POND	08/23/13 10:17
L1316476-03	PSP-SW12-082313	PLOW SHOP POND	08/23/13 10:08
L1316476-04	PSP-SW13-082313	PLOW SHOP POND	08/23/13 10:02

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1316476
Project Number:	AC001.005	**Report Date:**	08/26/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 08/26/13

METALS

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316476
Report Date: 08/26/13

SAMPLE RESULTS

Lab ID: L1316476-01
Client ID: PSP-SW10-082313
Sample Location: PLOW SHOP POND
Matrix: Water
Date Collected: 08/23/13 11:15
Date Received: 08/23/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	10.30		ug/l	0.5000	0.1610	1	08/23/13 15:02	08/26/13 15:02	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316476
Report Date: 08/26/13

SAMPLE RESULTS

Lab ID: L1316476-02
Client ID: PSP-SW11-082313
Sample Location: PLOW SHOP POND
Matrix: Water
Date Collected: 08/23/13 10:17
Date Received: 08/23/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	12.88		ug/l	0.5000	0.1610	1	08/23/13 15:02	08/26/13 15:21	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316476
Report Date: 08/26/13

SAMPLE RESULTS

Lab ID: L1316476-03
Client ID: PSP-SW12-082313
Sample Location: PLOW SHOP POND
Matrix: Water
Date Collected: 08/23/13 10:08
Date Received: 08/23/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	11.90		ug/l	0.5000	0.1610	1	08/23/13 15:02	08/26/13 15:40	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316476
Project Number: AC001.005
Report Date: 08/26/13

SAMPLE RESULTS

Lab ID: L1316476-04
Client ID: PSP-SW13-082313
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/23/13 10:02
Date Received: 08/23/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	11.74		ug/l	0.5000	0.1610	1	08/23/13 15:02	08/26/13 15:46	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316476
Report Date: 08/26/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG631191-1										
Arsenic, Total	ND		ug/l	0.5000	0.1610	1	08/23/13 15:02	08/26/13 14:50	1,6020A	BM

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1316476

Report Date: 08/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG631191-2								
Arsenic, Total	108		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG631191-4 QC Sample: L1316476-01 Client ID: PSP-SW10-082313												
Arsenic, Total	10.30	120	136.0	105		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG631191-3 QC Sample: L1316476-01 Client ID: PSP-SW10-082313						
Arsenic, Total	10.30	10.85	ug/l	5		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316476
Report Date: 08/26/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316476-01A	Plastic 250ml HNO3 preserved	A	<2	2.3	Y	Absent	DOD-AS-6020T(180)
L1316476-02A	Plastic 250ml HNO3 preserved	A	<2	2.3	Y	Absent	DOD-AS-6020T(180)
L1316476-03A	Plastic 250ml HNO3 preserved	A	<2	2.3	Y	Absent	DOD-AS-6020T(180)
L1316476-04A	Plastic 250ml HNO3 preserved	A	<2	2.3	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1316476
Project Number:	AC001.005	**Report Date:**	08/26/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316476
Project Number:	AC001.005	**Report Date:**	08/26/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316476
Project Number:	AC001.005	**Report Date:**	08/26/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE ____ OF ____

Date Rec'd in Lab: 8/23/13

ALPHA Job #: L1316476

ALPHA ANALYTICAL — World Class Chemistry

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220

320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: Sovereign Consulting

Address: 4 Open Square Way, Holyoke, MA

Phone: 413-540-0650

Email: RLeary@sovcon.com

Additional Project Information:

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 24 HR 8/26/13

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods

☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)

☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)

☐ Yes ☐ No NPDES RGP

☐ Other State /Fed Program ____ Criteria ____

ANALYSIS

VOC: ☐ 8260 ☐ 624 ☐ 524.2

SVOC: ☐ ABN ☐ PAH

METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15

METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13

EPH: ☐ Ranges & Targets ☐ Ranges Only

VPH: ☐ Ranges & Targets ☐ Ranges Only

☐ PCB ☐ PEST

TPH: ☐ Quant Only ☐ Fingerprint

Total Arsenic by 6020

SAMPLE INFO

Filtration
☐ Field
☐ Lab to do

Preservation
☐ Lab to do

Sample Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	TOTAL # BOTTLES
16476-1	PSP-SW10-082313	8/23/13	1115	SW	LMS	6
2	PSP-SW11-082313	↓	1017	↓	↓	6
3	PSP-SW12-082313	↓	1008	↓	↓	7
4	PSP-SW13-082313	↓	1002	↓	↓	7

Container Type	P
Preservative	C

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/23/13 1410	[signature]	8/23/13 1410

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1316592
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	08/27/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1316592-01	PSP-SW10-082613	PLOW SHOP POND	08/26/13 09:20
L1316592-02	PSP-SW11-082613	PLOW SHOP POND	08/26/13 10:55
L1316592-03	PSP-SW12-082613	PLOW SHOP POND	08/26/13 10:50
L1316592-04	PSP-SW13-082613	PLOW SHOP POND	08/26/13 10:42

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1316592
Project Number:	AC001.005	**Report Date:**	08/27/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 08/27/13

METALS

Project Name: DEVENS
Lab Number: L1316592
Project Number: AC001.005
Report Date: 08/27/13

SAMPLE RESULTS

Lab ID: L1316592-01
Client ID: PSP-SW10-082613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/26/13 09:20
Date Received: 08/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	11.34		ug/l	0.5000	0.1610	1	08/27/13 08:25	08/27/13 15:51	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316592
Report Date: 08/27/13

SAMPLE RESULTS

Lab ID: L1316592-02
Client ID: PSP-SW11-082613
Sample Location: PLOW SHOP POND
Matrix: Water
Date Collected: 08/26/13 10:55
Date Received: 08/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	11.93		ug/l	0.5000	0.1610	1	08/27/13 08:25	08/27/13 16:28	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316592
Project Number: AC001.005
Report Date: 08/27/13

SAMPLE RESULTS

Lab ID: L1316592-03
Client ID: PSP-SW12-082613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/26/13 10:50
Date Received: 08/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	11.72		ug/l	0.5000	0.1610	1	08/27/13 08:25	08/27/13 16:34	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316592
Project Number: AC001.005
Report Date: 08/27/13

SAMPLE RESULTS

Lab ID: L1316592-04
Client ID: PSP-SW13-082613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/26/13 10:42
Date Received: 08/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	11.33		ug/l	0.5000	0.1610	1	08/27/13 08:25	08/27/13 16:40	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316592
Report Date: 08/27/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG631770-1										
Arsenic, Total	ND		ug/l	0.5000	0.1610	1	08/27/13 08:25	08/27/13 15:38	1,6020A	BM

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1316592

Report Date: 08/27/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG631770-2								
Arsenic, Total	105		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG631770-3 WG631770-4 QC Sample: L1316595-04 Client ID: MS Sample												
Arsenic, Total	ND	120	125.6	105		127.6	106		80-120	2		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316592
Report Date: 08/27/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316592-01A	Plastic 250ml HNO3 preserved	A	<2	2.0	Y	Absent	DOD-AS-6020T(180)
L1316592-02A	Plastic 250ml HNO3 preserved	A	<2	2.0	Y	Absent	DOD-AS-6020T(180)
L1316592-03A	Plastic 250ml HNO3 preserved	A	<2	2.0	Y	Absent	DOD-AS-6020T(180)
L1316592-04A	Plastic 250ml HNO3 preserved	A	<2	2.0	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1316592
Project Number:	AC001.005	**Report Date:**	08/27/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316592
Project Number:	AC001.005	**Report Date:**	08/27/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316592
Project Number:	AC001.005	**Report Date:**	08/27/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE ____ OF ____

Date Rec'd in Lab: 8/26/13

ALPHA Job #: L1316592

ALPHA ANALYTICAL
World Class Chemistry
8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220
320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Client Information

Client: Sovereign Consulting
Address: 4 Open Square Way
Holyoke, MA
Phone: 413-540-0650
Email: RLeary@sovcon.com

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 8/27/13 24 Hr.

Additional Project Information:

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; Total Arsenic by 6020

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Total Arsenic by 6020	Sample Comments	TOTAL # BOTTLES
16592-01	PSP-SW10-082613	8/26/13	0920	SW	LMS	X		
-02	PSP-SW11-082613	↓	1055	↓	↓	X		
-03	PSP-SW12-082613	↓	1050	↓	↓	X		
-04	PSP-SW13-082613	↓	1042	↓	↓	X		

	Total Arsenic by 6020
Container Type	P
Preservative	C

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/26/13 1545	[signature]	8/26/13 1545

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1316645
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	08/28/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1316645-01	PSP-SW10-082713	PLOW SHOP POND	08/27/13 09:30
L1316645-02	PSP-SW11-082713	PLOW SHOP POND	08/27/13 10:18
L1316645-03	PSP-SW12-082713	PLOW SHOP POND	08/27/13 10:12
L1316645-04	PSP-SW13-082713	PLOW SHOP POND	08/27/13 10:07
L1316645-05	FD-082713	PLOW SHOP POND	08/27/13 10:14

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1316645
Project Number:	AC001.005	**Report Date:**	08/28/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 08/28/13

METALS

Project Name: DEVENS
Lab Number: L1316645
Project Number: AC001.005
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316645-01
Client ID: PSP-SW10-082713
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/27/13 09:30
Date Received: 08/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	10.93		ug/l	0.5000	0.1610	1	08/27/13 15:28	08/27/13 19:44	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316645
Project Number: AC001.005
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316645-02
Client ID: PSP-SW11-082713
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/27/13 10:18
Date Received: 08/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	13.79		ug/l	0.5000	0.1610	1	08/27/13 15:28	08/27/13 20:03	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316645
Project Number: AC001.005
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316645-03
Client ID: PSP-SW12-082713
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/27/13 10:12
Date Received: 08/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	12.56		ug/l	0.5000	0.1610	1	08/27/13 15:28	08/27/13 20:58	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316645
Project Number: AC001.005
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316645-04
Client ID: PSP-SW13-082713
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/27/13 10:07
Date Received: 08/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	12.41		ug/l	0.5000	0.1610	1	08/27/13 15:28	08/27/13 21:04	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316645
Project Number: AC001.005
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316645-05
Client ID: FD-082713
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/27/13 10:14
Date Received: 08/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	12.57		ug/l	0.5000	0.1610	1	08/27/13 15:28	08/27/13 21:10	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316645
Report Date: 08/28/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-05 Batch: WG631938-1										
Arsenic, Total	ND		ug/l	0.5000	0.1610	1	08/27/13 15:28	08/27/13 19:32	1,6020A	BM

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1316645

Report Date: 08/28/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-05 Batch: WG631938-2								
Arsenic, Total	107		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG631938-3 WG631938-4 QC Sample: L1316645-02 Client ID: PSP-SW11-082713												
Arsenic, Total	13.79	120	142.7	107		143.6	108		80-120	1		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316645
Report Date: 08/28/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316645-01A	Plastic 250ml HNO3 preserved	A	<2	4.2	Y	Absent	DOD-AS-6020T(180)
L1316645-02A	Plastic 250ml HNO3 preserved	A	<2	4.2	Y	Absent	DOD-AS-6020T(180)
L1316645-02B	Plastic 250ml HNO3 preserved	A	<2	4.2	Y	Absent	DOD-AS-6020T(180)
L1316645-02C	Plastic 250ml HNO3 preserved	A	<2	4.2	Y	Absent	DOD-AS-6020T(180)
L1316645-03A	Plastic 250ml HNO3 preserved	A	<2	4.2	Y	Absent	DOD-AS-6020T(180)
L1316645-04A	Plastic 250ml HNO3 preserved	A	<2	4.2	Y	Absent	DOD-AS-6020T(180)
L1316645-05A	Plastic 250ml HNO3 preserved	A	<2	4.2	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1316645
Project Number:	AC001.005	**Report Date:**	08/28/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316645
Project Number:	AC001.005	**Report Date:**	08/28/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316645
Project Number:	AC001.005	**Report Date:**	08/28/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE _____ OF _____

Date Rec'd In Lab: 8/27/13

ALPHA Job #: L1316645

ALPHA ANALYTICAL — World Class Chemistry

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: Sovereign Consulting
Address: 4 Open Square Way, Holyoke, MA
Phone: 413-540-0650
Email: RLeary@sovcon.com

Additional Project Information:

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 24 Hr 8/28/13

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ANALYSIS

VOC: ☐ 8260 ☐ 624 ☐ 524.2
SVOC: ☐ ABN ☐ PAH
METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15
METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13
EPH: ☐ Ranges & Targets ☐ Ranges Only
VPH: ☐ Ranges & Targets ☐ Ranges Only
☐ PCB ☐ PEST
TPH: ☐ Quant Only ☐ Fingerprint
Total Arsenic by 6020

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Total Arsenic by 6020	Sample Comments	TOTAL # BOTTLES
L6645-1	PSP-SW10-082713	8/27/13	0930	SW	LMS	X		
2	PSP-SW11-082713		1018			X		
2	PSP-SW11-082713-MS		1018			X		
2	PSP-SW11-082713-MSD		1018			X		
3	PSP-SW12-082713		1012			X		
4	PSP-SW13-082713		1007			X		
5	FD-082713		1014			X		
				Container Type		P		
				Preservative		C		

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/27/13 1410	[signature]	8/27/13 1410

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1316789
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	08/29/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1316789-01	PSP-SW10-082813	PLOW SHOP POND	08/28/13 09:00
L1316789-02	PSP-SW11-082813	PLOW SHOP POND	08/28/13 09:37
L1316789-03	PSP-SW12-082813	PLOW SHOP POND	08/28/13 09:32
L1316789-04	PSP-SW13-082813	PLOW SHOP POND	08/28/13 09:42

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1316789
Project Number:	AC001.005	**Report Date:**	08/29/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

L1316789-01 through -04 and the associated Batch QC have elevated detection limits due to the matrix interferences encountered during analysis; however, all samples had detections above the elevated reporting limit.

The WG632435-1 Method Blank, associated with L1316789-01 through -04, has a concentration greater than one half the reporting limit and <RL and "J" qualified for Arsenic. The associated field sample results are "B" qualified if the concentrations detected are >½ RL and less than 10x the concentration in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 08/29/13

METALS

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316789
Report Date: 08/29/13

SAMPLE RESULTS

Lab ID: L1316789-01
Client ID: PSP-SW10-082813
Sample Location: PLOW SHOP POND
Matrix: Water
Date Collected: 08/28/13 09:00
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	12.27		ug/l	1.000	0.1610	1	08/29/13 08:29	08/29/13 12:35	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1316789
Project Number: AC001.005
Report Date: 08/29/13

SAMPLE RESULTS

Lab ID: L1316789-02
Client ID: PSP-SW11-082813
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/28/13 09:37
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	14.04		ug/l	1.000	0.1610	1	08/29/13 08:29	08/29/13 12:49	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316789
Report Date: 08/29/13

SAMPLE RESULTS

Lab ID: L1316789-03
Client ID: PSP-SW12-082813
Sample Location: PLOW SHOP POND
Matrix: Water
Date Collected: 08/28/13 09:32
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	12.61		ug/l	1.000	0.1610	1	08/29/13 08:29	08/29/13 12:53	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316789
Report Date: 08/29/13

SAMPLE RESULTS

Lab ID: L1316789-04
Client ID: PSP-SW13-082813
Sample Location: PLOW SHOP POND
Matrix: Water
Date Collected: 08/28/13 09:42
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	13.02		ug/l	1.000	0.1610	1	08/29/13 08:29	08/29/13 12:56	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316789
Report Date: 08/29/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG632435-1										
Arsenic, Total	0.9120	J	ug/l	1.000	0.1610	1	08/29/13 08:29	08/29/13 13:18	1,6020A	AK

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1316789

Report Date: 08/29/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG632435-2								
Arsenic, Total	99		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG632435-4 QC Sample: L1316789-01 Client ID: PSP-SW10-082813												
Arsenic, Total	12.27	120	135.5	103		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG632435-3 QC Sample: L1316789-01 Client ID: PSP-SW10-082813						
Arsenic, Total	12.27	11.85	ug/l	3		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316789
Report Date: 08/29/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316789-01A	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	DOD-AS-6020T(180)
L1316789-02A	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	DOD-AS-6020T(180)
L1316789-03A	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	DOD-AS-6020T(180)
L1316789-04A	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1316789
Project Number:	AC001.005	**Report Date:**	08/29/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316789
Project Number:	AC001.005	**Report Date:**	08/29/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316789
Project Number:	AC001.005	**Report Date:**	08/29/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE_____ OF _____

Date Rec'd in Lab: 8/29/13

ALPHA Job #: L1316789

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: Sovereign Consulting

Address: 4 Open Square Way
Holyoke, MA

Phone: 413-540

Email: RLeary@sovcon.com

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 24 HR 8/29/13

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:

ANALYSIS

VOC: ☐ 8260 ☐ 624 ☐ 524.2
SVOC: ☐ ABN ☐ PAH
METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15
METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13
EPH: ☐ Ranges & Targets ☐ Ranges Only
VPH: ☐ Ranges & Targets ☐ Ranges Only
☐ PCB ☐ PEST
TPH: ☐ Quant Only ☐ Fingerprint
Total Arsenic by 6020

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

Sample Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Total Arsenic by 6020	TOTAL # BOTTLES
16789.1	PSP-SW10-082813	8/28/13	0900	SW	LMS	X	
.2	PSP-SW11-082813	↓	0937	↓	↓	X	
.3	PSP-SW12-082813		0932			X	
.4	PSP-SW13-082813		0942			X	
	Container Type					P	
	Preservative					C	

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
	8/28/13 1510		8/28/13 1510
	8/28/13 1715		8/28/13 1715

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1316891
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	08/30/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1316891-01	PSP-SW10-082913	PLOW SHOP POND	08/29/13 09:03
L1316891-02	PSP-SW11-082913	PLOW SHOP POND	08/29/13 09:42
L1316891-03	PSP-SW12-082913	PLOW SHOP POND	08/29/13 09:37
L1316891-04	PSP-SW13-082913	PLOW SHOP POND	08/29/13 09:33

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316891
Report Date: 08/30/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.
M2 Peak not found by automatic integration algorithm.
M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4 Poor automated baseline construction.
M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7 A qualifier ion was manually integrated (only for GC/MS data).
M8 Integration of individual analyte eluting on top of an unresolved complex.
M9 Other: Explain on chromatogram.

Metals

The WG632726-1 Method Blank, associated with L1316891-01 through -04, has a concentration > ½ RL and < RL and "J" qualified for Arsenic. The associated field sample results are "B" qualified if the concentrations are > ½ RL and less than 10x the concentration in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Lisa Westerlind

Title: Technical Director/Representative Date: 08/30/13

METALS

Project Name: DEVENS
Lab Number: L1316891
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316891-01
Client ID: PSP-SW10-082913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/29/13 09:03
Date Received: 08/29/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	14.47		ug/l	0.5000	0.1610	1	08/30/13 07:07	08/30/13 11:13	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1316891
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316891-02
Client ID: PSP-SW11-082913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/29/13 09:42
Date Received: 08/29/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	15.73		ug/l	0.5000	0.1610	1	08/30/13 07:07	08/30/13 11:28	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1316891
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316891-03
Client ID: PSP-SW12-082913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/29/13 09:37
Date Received: 08/29/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	13.16		ug/l	0.5000	0.1610	1	08/30/13 07:07	08/30/13 11:32	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1316891
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316891-04
Client ID: PSP-SW13-082913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/29/13 09:33
Date Received: 08/29/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	12.69		ug/l	0.5000	0.1610	1	08/30/13 07:07	08/30/13 11:36	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316891
Report Date: 08/30/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG632726-1										
Arsenic, Total	0.3060	J	ug/l	0.5000	0.1610	1	08/30/13 07:07	08/30/13 11:02	1,6020A	AK

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1316891

Report Date: 08/30/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG632726-2								
Arsenic, Total	99		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG632726-4 QC Sample: L1316891-01 Client ID: PSP-SW10-082913												
Arsenic, Total	14.47	120	132.8	99		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG632726-3 QC Sample: L1316891-01 Client ID: PSP-SW10-082913						
Arsenic, Total	14.47	15.11	ug/l	4		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316891
Report Date: 08/30/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316891-01A	Plastic 250ml HNO3 preserved	A	<2	4	Y	Absent	DOD-AS-6020T(180)
L1316891-02A	Plastic 250ml HNO3 preserved	A	<2	4	Y	Absent	DOD-AS-6020T(180)
L1316891-03A	Plastic 250ml HNO3 preserved	A	<2	4	Y	Absent	DOD-AS-6020T(180)
L1316891-04A	Plastic 250ml HNO3 preserved	A	<2	4	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1316891
Project Number:	AC001.005	**Report Date:**	08/30/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316891
Project Number:	AC001.005	**Report Date:**	08/30/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316891
Project Number:	AC001.005	**Report Date:**	08/30/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

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ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 8/29/13 | ALPHA Job #: L1316891

Client Information

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Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED) 24 HR
Due Date: Time: 8/30/13

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials
16891-01	PSP-SW10-082913	8/29/13	0903	SW	LMS
-02	PSP-SW11-082913		0942		
-03	PSP-SW12-082913		0937		
-04	PSP-SW13-082913		0933		

Container Type	P											
Preservative	C											

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/29/13 1445	[signature]	8/29/13 1445
Pat Cano	8/29/13 1535	Eyeeld	8/29/13 1535

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1316977
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/03/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1316977-01	PSP-SW10-083013	PLOW SHOP POND	08/30/13 09:58
L1316977-02	PSP-SW11-083013	PLOW SHOP POND	08/30/13 09:12
L1316977-03	PSP-SW12-083013	PLOW SHOP POND	08/30/13 09:06
L1316977-04	PSP-SW13-083013	PLOW SHOP POND	08/30/13 08:59

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1316977
Project Number: AC001.005 **Report Date:** 09/03/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

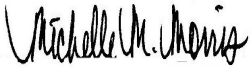
M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The WG633222-1 Method Blank, associated with L1316977-01 through -04, has a concentration > ½ RL and < RL and is "J" qualified for Arsenic. The associated field sample results are "B" qualified if the concentrations are > ½ RL and less than 10x the concentration in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 09/03/13

METALS

Project Name: DEVENS
Lab Number: L1316977
Project Number: AC001.005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1316977-01
Client ID: PSP-SW10-083013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/30/13 09:58
Date Received: 08/30/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	20.06		ug/l	0.5000	0.1610	1	09/03/13 09:18	09/03/13 12:07	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1316977
Project Number: AC001.005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1316977-02
Client ID: PSP-SW11-083013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/30/13 09:12
Date Received: 08/30/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	14.49		ug/l	0.5000	0.1610	1	09/03/13 09:18	09/03/13 12:22	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1316977
Project Number: AC001.005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1316977-03
Client ID: PSP-SW12-083013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/30/13 09:06
Date Received: 08/30/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	12.77		ug/l	0.5000	0.1610	1	09/03/13 09:18	09/03/13 12:25	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1316977
Project Number: AC001.005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1316977-04
Client ID: PSP-SW13-083013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/30/13 08:59
Date Received: 08/30/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	13.22		ug/l	0.5000	0.1610	1	09/03/13 09:18	09/03/13 12:29	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316977
Report Date: 09/03/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG633222-1										
Arsenic, Total	0.4490	J	ug/l	0.5000	0.1610	1	09/03/13 09:18	09/03/13 12:00	1,6020A	AK

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1316977

Report Date: 09/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG633222-2								
Arsenic, Total	102		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG633222-4 QC Sample: L1316977-01 Client ID: PSP-SW10-083013												
Arsenic, Total	20.06	120	143.6	103		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG633222-3 QC Sample: L1316977-01 Client ID: PSP-SW10-083013						
Arsenic, Total	20.06	21.25	ug/l	6		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316977
Report Date: 09/03/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316977-01A	Plastic 250ml HNO3 preserved	A	<2	3.4	Y	Absent	DOD-AS-6020T(180)
L1316977-02A	Plastic 250ml HNO3 preserved	A	<2	3.4	Y	Absent	DOD-AS-6020T(180)
L1316977-03A	Plastic 250ml HNO3 preserved	A	<2	3.4	Y	Absent	DOD-AS-6020T(180)
L1316977-04A	Plastic 250ml HNO3 preserved	A	<2	3.4	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1316977
Project Number:	AC001.005	**Report Date:**	09/03/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316977
Project Number:	AC001.005	**Report Date:**	09/03/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316977
Project Number:	AC001.005	**Report Date:**	09/03/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab: 8/30/13

ALPHA Job #: L1316977

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 HR

Due Date: 9/3/13 Time:

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials
16977-01	PSP-SW10-083013	8/30/13	0958	SW	UNS
-02	PSP-SW11-083013		0912		
-03	PSP-SW12-083013		0906		
-04	PSP-SW13-083013		0859		

Container Type: P
Preservative: C

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
	8/30/13 1200		8/30/13 1200
	8/30/13 1340	T. Kimball	8/30/13 1340
T. Middleton	8/30/13 1815		8/30/13 18:15

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1317068
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/04/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1317068-01	PSP-SW11-090313	PLOW SHOP POND	09/03/13 10:22
L1317068-02	PSP-SW10-090313	PLOW SHOP POND	09/03/13 09:34
L1317068-03	PSP-SW12-090313	PLOW SHOP POND	09/03/13 10:16
L1317068-04	PSP-SW13-090313	PLOW SHOP POND	09/03/13 10:07
L1317068-05	FD-090313	PLOW SHOP POND	09/03/13 10:09

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1317068
Project Number:	AC001.005	**Report Date:**	09/04/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/04/13

METALS

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317068
Report Date: 09/04/13

SAMPLE RESULTS

Lab ID: L1317068-01
Client ID: PSP-SW11-090313
Sample Location: PLOW SHOP POND
Matrix: Water
Date Collected: 09/03/13 10:22
Date Received: 09/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	16.91		ug/l	0.5000	0.1610	1	09/03/13 15:03	09/03/13 18:46	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317068
Report Date: 09/04/13

SAMPLE RESULTS

Lab ID: L1317068-02
Client ID: PSP-SW10-090313
Sample Location: PLOW SHOP POND
Matrix: Water
Date Collected: 09/03/13 09:34
Date Received: 09/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	14.81		ug/l	0.5000	0.1610	1	09/03/13 15:03	09/03/13 19:30	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1317068
Project Number: AC001.005
Report Date: 09/04/13

SAMPLE RESULTS

Lab ID: L1317068-03
Client ID: PSP-SW12-090313
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/03/13 10:16
Date Received: 09/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	15.95		ug/l	0.5000	0.1610	1	09/03/13 15:03	09/03/13 19:37	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1317068
Project Number: AC001.005
Report Date: 09/04/13

SAMPLE RESULTS

Lab ID: L1317068-04
Client ID: PSP-SW13-090313
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/03/13 10:07
Date Received: 09/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	15.76		ug/l	0.5000	0.1610	1	09/03/13 15:03	09/03/13 19:43	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317068
Report Date: 09/04/13

SAMPLE RESULTS

Lab ID: L1317068-05
Client ID: FD-090313
Sample Location: PLOW SHOP POND
Matrix: Water
Date Collected: 09/03/13 10:09
Date Received: 09/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	14.67		ug/l	0.5000	0.1610	1	09/03/13 15:03	09/03/13 19:50	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317068
Report Date: 09/04/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-05 Batch: WG633374-1										
Arsenic, Total	ND		ug/l	0.5000	0.1610	1	09/03/13 15:03	09/03/13 18:34	1,6020A	BM

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1317068

Report Date: 09/04/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-05 Batch: WG633374-2								
Arsenic, Total	102		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG633374-3 WG633374-4 QC Sample: L1317068-01 Client ID: PSP-SW11-090313												
Arsenic, Total	16.91	120	146.4	108		154.7	115		80-120	6		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317068
Report Date: 09/04/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1317068-01A	Plastic 250ml HNO3 preserved	A	<2	2.4	Y	Absent	DOD-AS-6020T(180)
L1317068-01B	Plastic 250ml HNO3 preserved	A	<2	2.4	Y	Absent	DOD-AS-6020T(180)
L1317068-01C	Plastic 250ml HNO3 preserved	A	<2	2.4	Y	Absent	DOD-AS-6020T(180)
L1317068-02A	Plastic 250ml HNO3 preserved	A	<2	2.4	Y	Absent	DOD-AS-6020T(180)
L1317068-03A	Plastic 250ml HNO3 preserved	A	<2	2.4	Y	Absent	DOD-AS-6020T(180)
L1317068-04A	Plastic 250ml HNO3 preserved	A	<2	2.4	Y	Absent	DOD-AS-6020T(180)
L1317068-05A	Plastic 250ml HNO3 preserved	A	<2	2.4	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1317068
Project Number:	AC001.005	**Report Date:**	09/04/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317068
Project Number:	AC001.005	**Report Date:**	09/04/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317068
Project Number:	AC001.005	**Report Date:**	09/04/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/8/13

ALPHA Job #: L1317068

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED) 24 HR
Due Date: 9/4/13 Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information — Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Arsenic by 6020	TOTAL # BOTTLES
7068 1	PSP-SW11-090313	9/3/13	1022	SW	LMS	☒	
1	PSP-SW11-090313-MS		1022			☒	
1	PSP-SW11-090313-MSD		1022			☒	
2	PSP-SW10-090313		0934			☒	
3	PSP-SW12-090313		1016			☒	
4	PSP-SW13-090313		1007			☒	
5	FD-090313		1009			☒	
						☐	
						☐	
						☐	

Container Type: P
Preservative: C

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	9/3/13 1156		9/3/13 1130
	9/3/13 1246		9/3/13 1246

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 01-01(I) (rev. 5-JAN-12)

ANALYTICAL REPORT

Lab Number:	L1317270
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/06/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1317270-01	PSP-SW10-090513	PLOW SHOP POND	09/05/13 09:18
L1317270-02	PSP-SW11-090513	PLOW SHOP POND	09/05/13 09:52
L1317270-03	PSP-SW12-090513	PLOW SHOP POND	09/05/13 09:47
L1317270-04	PSP-SW13-090513	PLOW SHOP POND	09/05/13 09:43

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317270
Report Date: 09/06/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

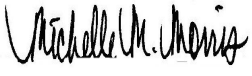
All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.
M2 Peak not found by automatic integration algorithm.
M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4 Poor automated baseline construction.
M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7 A qualifier ion was manually integrated (only for GC/MS data).
M8 Integration of individual analyte eluting on top of an unresolved complex.
M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 09/06/13

METALS

Project Name: DEVENS
Lab Number: L1317270
Project Number: AC001.005
Report Date: 09/06/13

SAMPLE RESULTS

Lab ID: L1317270-01
Client ID: PSP-SW10-090513
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/05/13 09:18
Date Received: 09/05/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	12.86		ug/l	0.5000	0.1610	1	09/06/13 08:14	09/06/13 12:04	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1317270
Project Number: AC001.005
Report Date: 09/06/13

SAMPLE RESULTS

Lab ID: L1317270-02
Client ID: PSP-SW11-090513
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/05/13 09:52
Date Received: 09/05/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	15.94		ug/l	0.5000	0.1610	1	09/06/13 08:14	09/06/13 12:20	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1317270
Project Number: AC001.005
Report Date: 09/06/13

SAMPLE RESULTS

Lab ID: L1317270-03
Client ID: PSP-SW12-090513
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/05/13 09:47
Date Received: 09/05/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	13.41		ug/l	0.5000	0.1610	1	09/06/13 08:14	09/06/13 12:24	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1317270
Project Number: AC001.005
Report Date: 09/06/13

SAMPLE RESULTS

Lab ID: L1317270-04
Client ID: PSP-SW13-090513
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/05/13 09:43
Date Received: 09/05/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	12.46		ug/l	0.5000	0.1610	1	09/06/13 08:14	09/06/13 12:28	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317270
Report Date: 09/06/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG634154-1										
Arsenic, Total	ND		ug/l	0.5000	0.1610	1	09/06/13 08:14	09/06/13 11:53	1,6020A	AK

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1317270

Report Date: 09/06/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG634154-2								
Arsenic, Total	99		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG634154-4 QC Sample: L1317270-01 Client ID: PSP-SW10-090513												
Arsenic, Total	12.86	120	136.3	103		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG634154-3 QC Sample: L1317270-01 Client ID: PSP-SW10-090513						
Arsenic, Total	12.86	13.15	ug/l	2		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317270
Report Date: 09/06/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1317270-01A	Plastic 250ml HNO3 preserved	A	<2	5.2	Y	Absent	DOD-AS-6020T(180)
L1317270-02A	Plastic 250ml HNO3 preserved	A	<2	5.2	Y	Absent	DOD-AS-6020T(180)
L1317270-03A	Plastic 250ml HNO3 preserved	A	<2	5.2	Y	Absent	DOD-AS-6020T(180)
L1317270-04A	Plastic 250ml HNO3 preserved	A	<2	5.2	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1317270
Project Number:	AC001.005	**Report Date:**	09/06/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317270
Project Number:	AC001.005	**Report Date:**	09/06/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317270
Project Number:	AC001.005	**Report Date:**	09/06/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 9-5-13

ALPHA Job #: L1317270

ALPHA ANALYTICAL
Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 hr TAT

Due Date: 9-6-13 Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Arsenic (6020)

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Arsenic (6020)	TOTAL # BOTTLES
17270 - 1	PSP-SW10-090513	090513	0918	SW	EF	☒	
2	PSP-SW11-090513	090513	0952	SW	EF	☒	
3	PSP-SW12-090513	090513	0947	SW	EF	☒	
4	PSP-SW13-090513	090513	0943	SW	EF	☒	
						☐	
						☐	
						☐	
						☐	
						☐	
						☐	
						☐	

Container Type	P	-	-	-	-	-	-	-	-	-	-	-	
Preservative	C	-	-	-	-	-	-	-	-	-	-	-	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Erin Foley	090513 1227	Pat Adler	9/5/13 1227
Pat Adler	9/5/13 1545		9-5-13 1545

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1317443
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/09/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1317443-01	PSP-SW10-090613	PLOW SHOP POND	09/06/13 09:10
L1317443-02	PSP-SW11-090613	PLOW SHOP POND	09/06/13 09:31
L1317443-03	PSP-SW12-090613	PLOW SHOP POND	09/06/13 09:36
L1317443-04	PSP-SW13-090613	PLOW SHOP POND	09/06/13 09:43

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1317443
Project Number:	AC001.005	**Report Date:**	09/09/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Sample Receipt

L1317443-03 was received above the appropriate pH for the Metals analysis. The laboratory added additional HNO3 to a pH <2.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/09/13

METALS

Project Name: DEVENS
Lab Number: L1317443
Project Number: AC001.005
Report Date: 09/09/13

SAMPLE RESULTS

Lab ID: L1317443-01
Client ID: PSP-SW10-090613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/06/13 09:10
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	13.33		ug/l	0.5000	0.1610	1	09/07/13 08:45	09/07/13 16:45	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1317443
Project Number: AC001.005
Report Date: 09/09/13

SAMPLE RESULTS

Lab ID: L1317443-02
Client ID: PSP-SW11-090613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/06/13 09:31
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	13.79		ug/l	0.5000	0.1610	1	09/07/13 08:45	09/07/13 17:01	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1317443
Project Number: AC001.005
Report Date: 09/09/13

SAMPLE RESULTS

Lab ID: L1317443-03
Client ID: PSP-SW12-090613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/06/13 09:36
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	12.17		ug/l	0.5000	0.1610	1	09/07/13 08:45	09/07/13 17:05	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1317443
Project Number: AC001.005
Report Date: 09/09/13

SAMPLE RESULTS

Lab ID: L1317443-04
Client ID: PSP-SW13-090613
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/06/13 09:43
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	12.22		ug/l	0.5000	0.1610	1	09/07/13 08:45	09/07/13 17:17	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317443
Report Date: 09/09/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG634434-1										
Arsenic, Total	0.1990	J	ug/l	0.5000	0.1610	1	09/07/13 08:45	09/07/13 16:33	1,6020A	AK

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1317443

Report Date: 09/09/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG634434-2								
Arsenic, Total	97		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG634434-4 QC Sample: L1317443-01 Client ID: PSP-SW10-090613												
Arsenic, Total	13.33	120	140.1	106		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG634434-3 QC Sample: L1317443-01 Client ID: PSP-SW10-090613						
Arsenic, Total	13.33	12.96	ug/l	3		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317443
Report Date: 09/09/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1317443-01A	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	DOD-AS-6020T(180)
L1317443-02A	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	DOD-AS-6020T(180)
L1317443-03A	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	DOD-AS-6020T(180)
L1317443-04A	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1317443
Project Number:	AC001.005	**Report Date:**	09/09/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317443
Project Number:	AC001.005	**Report Date:**	09/09/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317443
Project Number:	AC001.005	**Report Date:**	09/09/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE / OF /

Date Rec'd in Lab: 9/6/13 | ALPHA Job #: L1317443

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED) 24 hour
Due Date: 9/9/13 Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Arsenic by 6020	TOTAL # BOTTLES
17443 01	PSP-SW10-090613	9/6/13	09:10	SW	BAS	☑	
02	PSP-SW11-090613		09:31		BAS	☑	
03	PSP-SW12-090613		09:36		BAS	☑	
04	PSP-SW13-090613		09:43		BAS	☑	

Container Type	?	-	-	-	-	-	-	-	-	-	-	-	
Preservative	C	-	-	-	-	-	-	-	-	-	-	-	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Erin Jaffe	090613 1517	MSM	9/6/13 1517
MSM	9/6/13 1613		9/6/13 1613

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1317463
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/10/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1317463-01	SA-71-SD-05-002-090613	PLOW SHOP POND	09/06/13 11:20
L1317463-02	SA-71-SD-04-002-090613	PLOW SHOP POND	09/06/13 11:25
L1317463-03	SA-71-SD-06-002-090613	PLOW SHOP POND	09/06/13 12:00
L1317463-04	FD-090613-01	PLOW SHOP POND	09/06/13 11:20
L1317463-05	EB-090613-01	PLOW SHOP POND	09/06/13 12:20
L1317463-06	SA-71-SD-15-002-090613	PLOW SHOP POND	09/06/13 14:40
L1317463-07	SA-71-SD-14-002-090613	PLOW SHOP POND	09/06/13 15:10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1317463
Project Number: AC001.005 **Report Date:** 09/10/13

Case Narrative (continued)

Report Submission
Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.
All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes
M1 Split or tailing peak, auto integration stopped early resulting in false low area count.
M2 Peak not found by automatic integration algorithm.
M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4 Poor automated baseline construction.
M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7 A qualifier ion was manually integrated (only for GC/MS data).
M8 Integration of individual analyte eluting on top of an unresolved complex.
M9 Other: Explain on chromatogram.

Metals
The concentration of the ICSA was above the LOD for antimony. All associated samples have been qualified with a "Q".
The initial calibration blank and continuous calibration blank, associated with L1317463-05, has concentrations above the LOD for antimony. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.
The WG634625-4/-5 MS/MSD recoveries, performed on L1317463-01, are below the acceptance criteria for

Project Name:	DEVENS	**Lab Number:**	L1317463
Project Number:	AC001.005	**Report Date:**	09/10/13

Case Narrative (continued)

antimony (65%/46%); however, the associated LCS recovery was within criteria. No further action was taken. The parent sample (L1317463-01) should be qualified as "J" for this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/10/13

METALS

Project Name: DEVENS
Lab Number: L1317463
Project Number: AC001.005
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-01
Client ID: SA-71-SD-05-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 14%

Date Collected: 09/06/13 11:20
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	6.93	Q	mg/kg	0.201	0.036	2	09/09/13 11:00	09/10/13 10:09	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317463
Project Number: AC001.005
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-02
Client ID: SA-71-SD-04-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 11%

Date Collected: 09/06/13 11:25
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	7.81	Q	mg/kg	0.268	0.047	2	09/09/13 11:00	09/10/13 10:15	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317463
Project Number: AC001.005
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-03
Client ID: SA-71-SD-06-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 12%

Date Collected: 09/06/13 12:00
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	3.08	Q	mg/kg	0.217	0.038	2	09/09/13 11:00	09/10/13 10:15	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317463
Project Number: AC001.005
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-04
Client ID: FD-090613-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 14%

Date Collected: 09/06/13 11:20
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	6.10	Q	mg/kg	0.186	0.033	2	09/09/13 11:00	09/10/13 10:16	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317463
Project Number: AC001.005
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-05
Client ID: EB-090613-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/06/13 12:20
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	0.1054	JQ	ug/l	0.5000	0.0260	1	09/09/13 11:00	09/10/13 10:43	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317463
Project Number: AC001.005
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-06
Client ID: SA-71-SD-15-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 15%

Date Collected: 09/06/13 14:40
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	2.89	Q	mg/kg	0.181	0.032	2	09/09/13 11:00	09/10/13 10:17	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317463
Project Number: AC001.005
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-07
Client ID: SA-71-SD-14-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 17%

Date Collected: 09/06/13 15:10
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	7.52	Q	mg/kg	0.168	0.030	2	09/09/13 11:00	09/10/13 10:18	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317463
Report Date: 09/10/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04,06-07 Batch: WG634625-1										
Antimony, Total	ND		mg/kg	0.050	0.009	2	09/09/13 11:00	09/10/13 10:07	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 05 Batch: WG634627-1										
Antimony, Total	ND		ug/l	0.5000	0.00003	1	09/09/13 11:00	09/10/13 10:41	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1317463

Report Date: 09/10/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04,06-07 Batch: WG634625-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	110		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 05 Batch: WG634627-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	110		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04,06-07 QC Batch ID: WG634625-4 WG634625-5 QC Sample: L1317463-01 Client ID: SA-71-SD-05-002-090613												
Antimony, Total	6.93	8.14	12.2	**65**	Q	10.7	**46**	Q	80-120	13		20
Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG634627-4 QC Sample: L1317463-05 Client ID: EB-090613-01												
Antimony, Total	0.1054J	40	44.3	111		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04,06-07 QC Batch ID: WG634625-3 QC Sample: L1317463-01 Client ID: SA-71-SD-05-002-090613						
Antimony, Total	6.93	7.07	mg/kg	2		20
Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG634627-3 QC Sample: L1317463-05 Client ID: EB-090613-01						
Antimony, Total	0.1054J	ND	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-01
Client ID: SA-71-SD-05-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 11:20
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	13.5		%	0.100	0.100	1	-	09/09/13 08:39	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-02
Client ID: SA-71-SD-04-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 11:25
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.9		%	0.100	0.100	1	-	09/09/13 08:39	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-03
Client ID: SA-71-SD-06-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 12:00
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	12.1		%	0.100	0.100	1	-	09/09/13 08:39	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-04
Client ID: FD-090613-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 11:20
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	13.9		%	0.100	0.100	1	-	09/09/13 08:39	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-06
Client ID: SA-71-SD-15-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 14:40
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	15.2		%	0.100	0.100	1	-	09/09/13 08:39	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-07
Client ID: SA-71-SD-14-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 15:10
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	16.7		%	0.100	0.100	1	-	09/09/13 08:39	30,2540G	KB

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-04,06-07 QC Batch ID: WG634553-1 QC Sample: L1317463-01 Client ID: SA-71-SD-05-002-090613						
Solids, Total	13.5	13.7	%	1		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1317463-01A	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317463-01B	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317463-01C	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317463-02A	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317463-03A	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317463-04A	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317463-05A	Plastic 250ml HNO3 preserved	A	<2	5	Y	Absent	A2-DOD-SB-6020T(180)
L1317463-06A	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317463-07A	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1317463
Project Number:	AC001.005	**Report Date:**	09/10/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317463
Project Number:	AC001.005	**Report Date:**	09/10/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317463
Project Number:	AC001.005	**Report Date:**	09/10/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — Worldclass Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1317463

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 hour TAT

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information — Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Sb by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Sb by 6020	Sample Specific Comments
L1317463-1	SA-71-SD-05-002-090613	090613	1120	SD	SD	☒	MS/MSD
-2	SA-71-SD-04-002-090613	090613	1125	SD	SD	☒	
-3	SA-71-SD-06-002-090613	090613	1200	SD	FE ~~SD~~ BS	☒	
-4	FD-090613-01	090613	1120	SD	SD	☒	
-5	EB-090613-01	090613	1220	AQ	BS	☒	
-6	SA-71-SD-15-002-090613	090613	1440	SD	BS	☒	
-7	SA-71-SD-14-002-090613	090613	1510	SD	SD	☒	

Container Type	A	P	-	-	-	-	-	-	-	-	-	-	
Preservative	A	C	-	-	-	-	-	-	-	-	-	-	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Erin Joy MSM	090613 1517	MSM	9/6/13 1517
MSM	9/6/13 1610	Erin	9/6/13 1610
Erin MSM	9/6/13 1640	MSM	9/6/13 1635
MSM	9/6/13 1800		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1317701
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/11/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1317701-01	PSP-SW10-091013	PLOW SHOP POND	09/10/13 09:45
L1317701-02	PSP-SW11-091013	PLOW SHOP POND	09/10/13 10:31
L1317701-03	PSP-SW12-091013	PLOW SHOP POND	09/10/13 10:26
L1317701-04	PSP-SW13-091013	PLOW SHOP POND	09/10/13 10:19
L1317701-05	FD-091013	PLOW SHOP POND	09/10/13 10:18

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1317701
Project Number: AC001.005 **Report Date:** 09/11/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

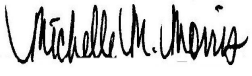
M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The WG635253-1 Method Blank, associated with L1317701-01 through -05, has a concentration >½ RL and < RL and is "J" qualified for arsenic. The associated field sample results are "B" qualified if the concentrations are >½ RL and less than 10x the concentration in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 09/11/13

METALS

Project Name: DEVENS
Lab Number: L1317701
Project Number: AC001.005
Report Date: 09/11/13

SAMPLE RESULTS

Lab ID: L1317701-01
Client ID: PSP-SW10-091013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/10/13 09:45
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	13.23		ug/l	0.5000	0.1610	1	09/11/13 10:28	09/11/13 13:48	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1317701
Project Number: AC001.005
Report Date: 09/11/13

SAMPLE RESULTS

Lab ID: L1317701-02
Client ID: PSP-SW11-091013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/10/13 10:31
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	16.77		ug/l	0.5000	0.1610	1	09/11/13 10:28	09/11/13 13:34	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1317701
Project Number: AC001.005
Report Date: 09/11/13

SAMPLE RESULTS

Lab ID: L1317701-03
Client ID: PSP-SW12-091013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/10/13 10:26
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	16.13		ug/l	0.5000	0.1610	1	09/11/13 10:28	09/11/13 13:52	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1317701
Project Number: AC001.005
Report Date: 09/11/13

SAMPLE RESULTS

Lab ID: L1317701-04
Client ID: PSP-SW13-091013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/10/13 10:19
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	15.22		ug/l	0.5000	0.1610	1	09/11/13 10:28	09/11/13 13:56	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1317701
Project Number: AC001.005
Report Date: 09/11/13

SAMPLE RESULTS

Lab ID: L1317701-05
Client ID: FD-091013
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/10/13 10:18
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	15.66		ug/l	0.5000	0.1610	1	09/11/13 10:28	09/11/13 14:10	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317701
Report Date: 09/11/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-05 Batch: WG635253-1										
Arsenic, Total	0.4920	J	ug/l	0.5000	0.1610	1	09/11/13 10:28	09/11/13 13:59	1,6020A	AK

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1317701

Report Date: 09/11/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-05 Batch: WG635253-2								
Arsenic, Total	98		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG635253-3 WG635253-4 QC Sample: L1317701-02 Client ID: PSP-SW11-091013												
Arsenic, Total	16.77	120	144.1	106		141.9	104		80-120	2		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317701
Report Date: 09/11/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1317701-01A	Plastic 250ml HNO3 preserved	A	<2	5	Y	Absent	DOD-AS-6020T(180)
L1317701-02A	Plastic 250ml HNO3 preserved	A	<2	5	Y	Absent	DOD-AS-6020T(180)
L1317701-02B	Plastic 250ml HNO3 preserved	A	<2	5	Y	Absent	DOD-AS-6020T(180)
L1317701-02C	Plastic 250ml HNO3 preserved	A	<2	5	Y	Absent	DOD-AS-6020T(180)
L1317701-03A	Plastic 250ml HNO3 preserved	A	<2	5	Y	Absent	DOD-AS-6020T(180)
L1317701-04A	Plastic 250ml HNO3 preserved	A	<2	5	Y	Absent	DOD-AS-6020T(180)
L1317701-05A	Plastic 250ml HNO3 preserved	A	<2	5	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1317701
Project Number:	AC001.005	**Report Date:**	09/11/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317701
Project Number:	AC001.005	**Report Date:**	09/11/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317701
Project Number:	AC001.005	**Report Date:**	09/11/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

L1317701

CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL
World Class Chemistry

Westborough, MA
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA
TEL: 508-822-9300
FAX: 508-822-3288

Date Rec'd in Lab: 9/10/13

ALPHA Job #: L1317701-RS

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Due Date: 9/13/13 Time: 11 24 HR

Other Project Specific Requirements/Comments/Detection Limits:

Report Information

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Data Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Arsenic by 6020												Sample Specific Comments
17701.1	PSP-SW10-091013	9/10/13	0945	SW	LMS	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
.2	PSP-SW11-091013	↓	1031	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
.2	PSP-SW11-091013-MS	↓	1031	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
.2	PSP-SW11-091013-MSD	↓	1031	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
.3	PSP-SW12-091013	↓	1026	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
.4	PSP-SW13-091013	↓	1019	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
.5	FD-091013	↓	1018	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Container Type	P	-	-	-	-	-	-	-	-	-	-	-
Preservative	C	-	-	-	-	-	-	-	-	-	-	-

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I)
(rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	9/10/13	[signature]	9/10/13
[signature]	9/10/13	Rev Lam	9/10/13 1510
Rev Lam	9/10/13 1615	Richard Scott	9/10/13 1615

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1318506
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/20/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1318506-01	PSP-SW-10-091913	PLOW SHOP POND	09/19/13 09:18
L1318506-02	PSP-SW-11-091913	PLOW SHOP POND	09/19/13 09:58
L1318506-03	PSP-SW-12-091913	PLOW SHOP POND	09/19/13 09:51
L1318506-04	PSP-SW-13-091913	PLOW SHOP POND	09/19/13 09:44

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1318506
Project Number: AC001.005 **Report Date:** 09/20/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

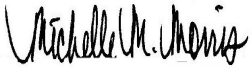
M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Sample Receipt

L1318506-01 was received above the appropriate pH for the Total Metals analysis. The laboratory added additional HNO3 to a pH <2.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 09/20/13

METALS

Project Name: DEVENS
Lab Number: L1318506
Project Number: AC001.005
Report Date: 09/20/13

SAMPLE RESULTS

Lab ID: L1318506-01
Client ID: PSP-SW-10-091913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/19/13 09:18
Date Received: 09/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	9.377		ug/l	0.5000	0.1610	1	09/20/13 08:06	09/20/13 12:26	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1318506
Project Number: AC001.005
Report Date: 09/20/13

SAMPLE RESULTS

Lab ID: L1318506-02
Client ID: PSP-SW-11-091913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/19/13 09:58
Date Received: 09/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	16.06		ug/l	0.5000	0.1610	1	09/20/13 08:06	09/20/13 12:41	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1318506
Project Number: AC001.005
Report Date: 09/20/13

SAMPLE RESULTS

Lab ID: L1318506-03
Client ID: PSP-SW-12-091913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/19/13 09:51
Date Received: 09/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	15.90		ug/l	0.5000	0.1610	1	09/20/13 08:06	09/20/13 12:52	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Lab Number: L1318506
Project Number: AC001.005
Report Date: 09/20/13

SAMPLE RESULTS

Lab ID: L1318506-04
Client ID: PSP-SW-13-091913
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/19/13 09:44
Date Received: 09/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	15.53		ug/l	0.5000	0.1610	1	09/20/13 08:06	09/20/13 12:55	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1318506
Report Date: 09/20/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04 Batch: WG637671-1										
Arsenic, Total	ND		ug/l	0.5000	0.1610	1	09/20/13 08:06	09/20/13 12:16	1,6020A	AK

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1318506

Report Date: 09/20/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 Batch: WG637671-2								
Arsenic, Total	98		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG637671-4 QC Sample: L1318506-01 Client ID: PSP-SW-10-091913												
Arsenic, Total	9.377	120	133.3	103		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG637671-3 QC Sample: L1318506-01 Client ID: PSP-SW-10-091913						
Arsenic, Total	9.377	9.171	ug/l	2		20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318506
Report Date: 09/20/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1318506-01A	Plastic 250ml HNO3 preserved	A	<2	5	Y	Absent	DOD-AS-6020T(180)
L1318506-02A	Plastic 250ml HNO3 preserved	A	<2	5	Y	Absent	DOD-AS-6020T(180)
L1318506-03A	Plastic 250ml HNO3 preserved	A	<2	5	Y	Absent	DOD-AS-6020T(180)
L1318506-04A	Plastic 250ml HNO3 preserved	A	<2	5	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1318506
Project Number:	AC001.005	**Report Date:**	09/20/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318506
Project Number:	AC001.005	**Report Date:**	09/20/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318506
Project Number:	AC001.005	**Report Date:**	09/20/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/19/13

ALPHA Job #: L1318506

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 HR TAT

Due Date: Time: 9/20/13

Other Project Specific Requirements/Comments/Detection Limits:

Report Information — Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Arsenic by 6020	TOTAL # BOTTLES
18506-01	PSP-SW-10-091913	9/19/13	0918	SW	LMS	☒	1
-02	PSP-SW-11-091913		0958			☒	1
-03	PSP-SW-12-091913		0951			☒	1
-04	PSP-SW-13-091913		0944			☒	1

Container Type: P
Preservative: C

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
	9/19/13		9/19/13 1430
	9/19/13 1521		9/19/13

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/19/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Jim Henebury, John Curran

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
(Yes)	No	NA	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site?
			Recorded rainfall since previous inspection: 0 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
(Yes)	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
(Yes)	No	Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization	
Topsoiling	Bench Terracing	Clearwater Diversion	Other	Straw wattles around RR Roundhouse drainage riprap & dam pumps
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)		
Temporary Stabilization	Berms	(Riprap) or Aggregate ~ at Dam to lessen water impact		
Polyacrylamide (PAM)	Sodding	Hydro-seeding		

Yes	No	(NA)	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
(Yes)	No		Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
Yes	No	(NA)	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check	
Inlet Protection	Silt Fence	Sediment Berms/Dikes	
Sediment Trap	Polyacrylamide Flocculates	Other	Silt fence around drainage riprap at RR Roundhouse

(Yes)	No	Photo Documentation
Yes	No	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	No	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

(Yes)	No		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	(NA)	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

(Yes) No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions --> Required Actions:
Stop Work Order

Type/Location of E&S Control | Repair Needed | Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	Straw wattles @ dam	N	N		
2	silt fence @ SA 71 swale	N	N		
3					
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

Note: No on-site work completed on 8/20/13 - all conditions same

INSPECTION DATE: 8/21/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC & D

On-Site Responsible Person (if applicable): Jim Henchbury, John Curran

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
(Yes)	No	NA	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site? Recorded rainfall since previous inspection: 0 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
(Yes)	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
(Yes)	No	Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other No new EP measures
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

Yes	No	(NA)	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?

Yes (No) Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	(NA)	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes
Sediment Trap	Polyacrylamide Flocculates	Other No new SC measures

Yes	(No)	Photo Documentation
Yes	No	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	No	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

(Yes)	No		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions --> Required Actions:
Stop Work Order

Type/Location of E&S Control | Repair Needed | Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	Straw wattles @ dam	N	N		
2	silt fence @ SA71 swale	N	N		
3					
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/22/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Jim Heneburg, John Curran

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
(Yes)	No	NA	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site?
			Recorded rainfall since previous inspection: 0 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
(Yes)	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
(Yes)	No	Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other No new EP measures
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

Yes	No	(NA)	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?

Yes (No) Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
Yes	No	(NA)	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes
Sediment Trap	Polyacrylamide Flocculates	Other No new SC measures

Yes (No) Photo Documentation
Yes No Are any additional Erosion Prevention or Sediment Control Practices required?
Yes No Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

(Yes)	No		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions --> Required Actions:
Stop Work Order

Type/Location of E&S Control | Repair Needed | Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	Straw wattles @ dam	N	N		
2	silt fence @ SA71 swale	N	N		
3					
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/23/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit #: _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Jim Henchbury, John Curran

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
(Yes)	No	NA	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site?
			Recorded rainfall since previous inspection: 0 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No		Is construction following the phasing and sequencing plan?
(Yes)	No		Are Erosion Prevention measures located in the proper places?
(Yes)	No		Are Erosion Prevention measures installed correctly?
(Yes)	No		Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	No new EP measures
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

Yes	No	(NA)	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes	(No)		Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	(NA)	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check	
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes	
Sediment Trap	Polyacrylamide Flocculates	Other	No new SC measures

Yes	(No)	Photo Documentation
Yes	No	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	No	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

(Yes)	No		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any enforcement activity is required as a result of this inspection?

	Type/Location of E&S Control	Repair Needed	Action Taken
No Action			
Unsafe Condition			
Corrective Actions	--> Required Actions:		
Stop Work Order			

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	straw wattles @ dam	N	N		
2	silt fence @ SA7/1 swale	N	N		
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/26/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: ACOO1.005 Permit # _____

Contractor Name: RC & D

On-Site Responsible Person (if applicable): Jim Heneburg, John Curran

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site? Recorded rainfall since previous inspection: 0 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
(Yes)	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
(Yes)	No	Are Erosion Prevention measures protecting disturbed areas?

If Erosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other added: wattles w/in SA71 exc. area, ~~silt fence extending up sandy road to landfill~~
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
(Yes)	No		Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
Yes	No	(NA)	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check	
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes	
Sediment Trap	Polyacrylamide Flocculates	Other added: silt fence extending up sandy road to landfill	

(Yes)	No	Photo Documentation
Yes	(No)	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

(Yes)	No		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

(Yes) No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

--> Required Actions:

Type/Location of E&S Control | Repair Needed | Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	wattles in SAT1 exc. area	N	N		added today
2	silt fence on ATV road	N	N		added today
3	wattles at pump loc	N	N		
4	silt fence at SAT1 drainage swale	N	N		
5					
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10					

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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/27/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Jim Hanchury, John Curran

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1?/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site? Recorded rainfall since previous inspection: 0 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
(Yes)	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
(Yes)	No	Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other added: wattles continuing around entire exc area at SA71
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
(Yes)	No		Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
Yes	No	(NA)	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check	
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes	
Sediment Trap	Polyacrylamide Flocculates	Other No new SC added	

(Yes)	(No)	Photo Documentation
Yes	(No)	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

(Yes)	No		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions --> Required Actions:
Stop Work Order

Type/Location of E&S Control | Repair Needed | Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	Wattles in SAT1 exc area	N	N		
2	silt fence on ATV road	N	N		
3	wattles at pump loca.	N	N		
4	silt fence at SAT1 drainage swale	N	N		
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10					

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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/28/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Jim Heneburg, John Curran

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site? Recorded rainfall since previous inspection: <1 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
(Yes)	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
(Yes)	No	Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	No new EP added
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
(Yes)	(No)		Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
Yes	No	(NA)	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes
Sediment Trap	Polyacrylamide Flocculates	Other Added: silt fencing along upper end of dirt ATV road leading to landfill

(Yes)	No		Photo Documentation
Yes	(No)		Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)		Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

(Yes)	No		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action	Type/Location of E&S Control	Repair Needed	Action Taken
Unsafe Condition			
Corrective Actions --> Required Actions:			
Stop Work Order			

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

18" pipe installed @ drainage swale beneath ATV road — will monitor for erosion/road subsidence if heavy rains occur.

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	wattles in SA71 exc. area	N	N		
2	silt fence on ATV road	N	N		
3	wattles at pump location	N	N		
4	silt fence at SA71 drainage swale	N	N		
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/29/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC & D

On-Site Responsible Person (if applicable): Jim Henchury, John Curran

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site?
			Recorded rainfall since previous inspection: < 1 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
(Yes)	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
(Yes)	No	Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other No new EP added
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes	(No)		Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	NA	Are all soil stockpiles adequately contained? On pond banks
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes
Sediment Trap	Polyacrylamide Flocculates	Other No new SC added

Yes	(No)	Photo Documentation
Yes	(No)	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

(Yes)	No		Are there BMPs installed in streams or active channels?
			If yes, have them removed unless specified on the plans and check for permits.
(Yes)	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

--> Required Actions:

Type/Location of E&S Control | Repair Needed | Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1 wattles in SA71 exc area	N	N		
2 silt fence on ATV road	N	N		
3 wattles at pump location	N	N		
4 silt fence at SA71 drainage swale	N	N		
5				
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 8/30/13 INSPECTOR NAME: CMJ QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RCPD

On-Site Responsible Person (if applicable): John Curran, Jim Henebury

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site? Recorded rainfall since previous inspection: 0 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No		Is construction following the phasing and sequencing plan?
(Yes)	No		Are Erosion Prevention measures located in the proper places?
(Yes)	No		Are Erosion Prevention measures installed correctly?
(Yes)	No		Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other No new EP measures
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes	(No)		Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	NA	Are all soil stockpiles adequately contained? [redacted] at stockpile area @ landfill
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check	
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes	
Sediment Trap	Polyacrylamide Flocculates	Other ~~No new SC measures~~ Silt fence at landfill stockpile area designated for Railroad sediments	

Yes	(No)		Photo Documentation
Yes	(No)		Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)		Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

(Yes)	No		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions --> Required Actions:
Stop Work Order

Type/Location of E&S Control	Repair Needed	Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	wattles in SA7I exc area	N	N		
2	silt fence on ATV Road	N	N		
3	wattles at pump location	N	N		Note: large pump use discontinued, new smaller pump installed outside of EC area
4	silt fence at SA7I drainage swales	N	N		
5	silt fence at stockpile area				
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/3/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC*D

On-Site Responsible Person (if applicable): John Curran/Aaron Lachance/Jim Heneburg

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site?
			Recorded rainfall since previous inspection: 0 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
(Yes)	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
(Yes)	No	Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other No new EP measures
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes	(No)		Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	NA	Are all soil stockpiles adequately contained? at stockpile area on landfill
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes
Sediment Trap	Polyacrylamide Flocculates	Other No new SC measures

Yes	(No)	Photo Documentation
Yes	(No)	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

(Yes)	No		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

--> Required Actions:

Type/Location of E&S Control	Repair Needed	Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1 wattles in SA71 exc area	N	N		
2 silt fence on ATV road	N	N		
3 wattles at pump location	N	N		
4 silt fence at SA71 drainage swale	N	N		
5 silt fence at soil stockpile area				
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/4/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Aaron Lachance

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site? Recorded rainfall since previous inspection: 0 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
(Yes)	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
(Yes)	No	Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other No new EP measures
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
(Yes)	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes	(No)		Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	NA	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes
Sediment Trap	Polyacrylamide Flocculates	Other No new SC measures

Yes	(No)	Photo Documentation
Yes	(No)	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

(Yes)	No		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions --> Required Actions:
Stop Work Order

Type/Location of E&S Control | Repair Needed | Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	Wattles in SA71 esc area	N	N		
2	Silt fence on ATV road	N	N		
3	wattles at pump location	N	N		
4	silt fence at drainage swale	N	N		
5	Silt fence at Soil Stockpile area	N	N		
6					
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/10/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Aaron Lachance

Notice of Construction Filed	Yes	No	_____	(date)
Pre Construction Inspection	Yes	No	8/14/13	(date)
Pre Construction Conference	Yes	No	8/1/13	(date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site?
			Recorded rainfall since previous inspection: 1 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
(Yes)	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
(Yes)	No	Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other No new EP measures
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes	(No)		Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	NA	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes
Sediment Trap	Polyacrylamide Flocculates	Other No new SC measures

Yes	(No)	Photo Documentation
Yes	(No)	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

(Yes)	No		Are there BMPs installed in streams or active channels?
			If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions --> Required Actions:
Stop Work Order

Type/Location of E&S Control | Repair Needed | Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1 wattles in SA71 exc area	N	N		
2 silt fence on ATV road	N	N		
3 wattles at pump location	N	N		
4 siltfence at drainage swale	N	N		
5 silt fence at soil stockpile area	N	N		
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/11/13 INSPECTOR NAME: WJB QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: _____

On-Site Responsible Person (if applicable): Aaron Lachance

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8-14-13 (date)
Pre Construction Conference	Yes	No	8-1-13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	NA	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site? Recorded rainfall since previous inspection: 2.1 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No		Is construction following the phasing and sequencing plan?
(Yes)	No		Are Erosion Prevention measures located in the proper places?
(Yes)	No		Are Erosion Prevention measures installed correctly?
(Yes)	No		Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other No new EP measures
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?

Yes (No) Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	NA	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check	
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes	
Sediment Trap	Polyacrylamide Flocculates	Other No new SC measures	

Yes	(No)	Photo Documentation
Yes	(No)	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

(Yes)	No		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions --> Required Actions:
Stop Work Order

Type/Location of E&S Control | Repair Needed | Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	wattles in SA71 exc area	N	N		
2	silt fence on ATV road	N	N		
3	wattles at pump location	N	N		
4	silt fence at drainage swale	N	N		
5	silt fence at soil stockpile area	N	N		SA 71 and RC staging areas
6					
7					
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/12/13 INSPECTOR NAME: WJB QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: _____

On-Site Responsible Person (if applicable): Aaron Lachance

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8-14-13 (date)
Pre Construction Conference	Yes	No	8-1-13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	NA	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site?
			Recorded rainfall since previous inspection: _____ inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
(Yes)	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
(Yes)	No	Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding		Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion		Other
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)		No new EP measures
Temporary Stabilization	Berms	(Riprap) or Aggregate		
Polyacrylamide (PAM)	Sodding	Hydro-seeding		

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?

Yes (No) Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	NA	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes
Sediment Trap	Polyacrylamide Flocculates	Other

Yes	(No)	Photo Documentation
Yes	(No)	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

(Yes)	No		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

--> Required Actions:

Type/Location of E&S Control | Repair Needed | Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1 Wattles in SA71 exc area	N	N		
2 Silt fence on ATV road	N	N		
3 Wattles at pump location	N	N		
4 Silt fence at drainage swale	N	N		
5 Silt fence at soil stockpile area	N	N		
6				
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 7/13/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: How Shop Pond Project ID: AC001-05A Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Aaron LaChance

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site?
			Recorded rainfall since previous inspection: ~4 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
Yes	(No)	Are Erosion Prevention measures located in the proper places? See notes
(Yes)	No	Are Erosion Prevention measures installed correctly?
Yes	(No)	Are Erosion Prevention measures protecting disturbed areas? See notes

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

Yes	(No)	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable? See notes
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?

(Yes) No Photo Documentation

SEDIMENT CONTROL

Yes	(No)	NA	Are Sediment Control practices located properly? See notes
Yes	(No)	NA	Are Sediment Control practices installed properly? See notes
(Yes)	No	NA	Are all soil stockpiles adequately contained?
Yes	(No)	NA	Are Sediment Control measures protecting off site areas? see notes

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes
(Sediment Trap)	Polyacrylamide Flocculates	Other

(Yes)	No	Photo Documentation
(Yes)	No	Are any additional Erosion Prevention or Sediment Control Practices required? See notes
(Yes)	No	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

~~Yes~~ LMS	(No)		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
Yes	No	(NA)	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

(Yes) No Photo Documentation

CORRECTIVE ACTION

(Yes) ongoing No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions --> Required Actions: See notes below
Stop Work Order

Type/Location of E&S Control	Repair Needed	Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

Severe storms during previous night caused extensive flooding & erosion.
Correction of Erosion Control & Sediment Control measures needed including:

- Repositioning of silt fence at culvert under ATV road. Currently silt fence is pulled above ground surface and has entered into culvert due to force of water runoff.
- Regrading/filling of roadsides on ATV road. Currently large areas on edges of road have washed out and down riprap swale. Road subsidence needs correcting.
- Maintenance of riprap sedimentation area w/in SA71. Portions of this area have washed out and heavy sedimentation is present at riprap swale outfall.
- Repositioning of straw wattles w/in SA71 exc. area. Currently wattles are separated & ineffective.

These measures being corrected on 9/13/13 prior to any further site work.

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	wattles in SA71 exc area	Y	Y	9/13/13	See above
2	silt fence on ATV road	Y	Y	9/13/13	see above
3	wattles at pump location	N	N		intact, no issues at dam
4	silt fence at drainage swale	Y	Y	9/13/13	silt fence ok but swale ~~outfall~~ outfall will need maintenance
5	silt fence at soil stockpile area	N	N		
6					
7					
8					
9					
10					

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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/16/13 INSPECTOR NAME: WJB QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001-005 Permit # _____

Contractor Name: RC+D

On-Site Responsible Person (if applicable): Aaron La chance

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8-14-13 (date)
Pre Construction Conference	Yes	No	8-1-13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site?
			Recorded rainfall since previous inspection: ___ inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
Yes	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
Yes	(No)	Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

Yes	(No)	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?

Yes (No) Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
Yes	(No)	NA	Are Sediment Control practices installed properly? see notes
(Yes)	No	NA	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes
(Sediment Trap)	Polyacrylamide Flocculates	Other

Yes	(No)	Photo Documentation
(Yes)	No	Are any additional Erosion Prevention or Sediment Control Practices required?
(Yes)	No	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below See notes

OFFSITE IMPACT

Yes	(No)		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
(Yes)	No		Is there evidence of work outside the limits of the approved plan? — test pits/trenches
Yes	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

(Yes) No Photo Documentation

CORRECTIVE ACTION

(Yes) in process No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

--> Required Actions: see below

Type/Location of E&S Control | Repair Needed | Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

- ATV road was improved following being washed-out the night of 9/12/13.
  ↳ silt fence in this are still needs repair in certain areas.
- Drainage swale entrance to Plow shop Pond is washed out, unclear as if the ATV road impacted the swale or if it was natural.
- Straw wattles within SA71 are taking on water and seem to be sinking, the area in the west became disconnected, Repairs should be conducted.

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	wattles in SA71 exc area	Y	Y	9/13/13	
2	silt fence on ATV road	Y	Y	9/13/13	
3	wattles at ramp location	N	N	—	
4	silt fence at drainage swale	Y	Y	9/13/13	outfall only
5	silt fence at soil stockpile area	N	N	—	
6					
7					
8					
9					
10					

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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/17/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Aaron Lachance

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site? Recorded rainfall since previous inspection: 0 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No		Is construction following the phasing and sequencing plan?
(Yes)	No		Are Erosion Prevention measures located in the proper places?
(Yes)	No		Are Erosion Prevention measures installed correctly?
(Yes)	No		Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?

Yes (No) Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly? note that wattles in SA71 will need replacing soon
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	NA	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes
Sediment Trap	Polyacrylamide Flocculates	Other

Yes	(No)	Photo Documentation
Yes	(No)	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

(Yes)	(No)		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

--> Required Actions:

Type/Location of E&S Control	Repair Needed	Action Taken
straw wattles @ SA71 exc.	submerged - will need replacing	will be corrected when digging resumes at SA71

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	wattles in SA71 exc area	Y	N	9/17/13	RC&D notified of changes needed
2	silt fence on ATV road	N	N		
3	wattles at pump loc.	N	N		
4	silt fence at drainage swale	N	N		
5	silt fence at soil stockpile area	N	N		
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/18/13 INSPECTOR NAME: WJB QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: ACOOI.005 Permit # _____

Contractor Name: RC+D

On-Site Responsible Person (if applicable): Aaron Lachance

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8-14-13 (date)
Pre Construction Conference	Yes	No	8-1-13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site?
			Recorded rainfall since previous inspection: 0 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
(Yes)	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
(Yes)	No	Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	Riprap or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?

Yes (No) Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly? — replacement and/or repositioning of straw wattles in SA 71.
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	NA	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	~~Vegetated Filter~~ Strips	Ditch Check
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes
Sediment Trap	Polyacrylamide Flocculates	Other

Yes	(No)	Photo Documentation
Yes	(No)	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes	(No)		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable? repositioning of straw wattles @ SA71

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

--> Required Actions:

Type/Location of E&S Control	Repair Needed	Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1 wattles in SA71 exc area	Y	N	9/17/13	RCRD will reposition straw wattles
2 silt fence on ATV road	N	N		
3 wattles at pump location	N	N		
4 silt fence at drainage swale	N	N		
5 silt fence at soil stockpile area	N	N		
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/19/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC #1

On-Site Responsible Person (if applicable): Aaron Lachance

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site?
			Recorded rainfall since previous inspection: 0 inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No		Is construction following the phasing and sequencing plan?
(Yes)	No		Are Erosion Prevention measures located in the proper places?
(Yes)	No		Are Erosion Prevention measures installed correctly?
(Yes)	No		Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?

Yes (No) Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	NA	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes
Sediment Trap	Polyacrylamide Flocculates	Other

Yes	(No)	Photo Documentation
Yes	(No)	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes	(No)		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

--> Required Actions:

Type/Location of E&S Control	Repair Needed	Action Taken
Straw wattles @ SA71 still submerged	will need stretching/ replacing	will be corrected when digging resumes at SA71

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	wattles in SA71 exc area	Y	N	9/17/13	to be corrected when digging resumes
2	silt fence on ATV road	N	N		
3	wattles at pump loc	N	N		
4	silt fence at drainage swale	N	N		
5	silt fence at soil stockpile area	N	N		
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 9/29/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RCPD

On-Site Responsible Person (if applicable): Adam Lachance

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

Yes	No		Are perimeter controls installed?
Yes	No		Are perimeter BMPs installed correctly?
Yes	No	NA	Dentention/sediment basin installed as the first land disturbing activity if applicable?
Yes	No		Is there a functional rain gauge located on the project site? Recorded rainfall since previous inspection: 0 inches
Yes	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

Yes	No	Is construction following the phasing and sequencing plan?
Yes	No	Are Erosion Prevention measures located in the proper places?
Yes	No	Are Erosion Prevention measures installed correctly?
Yes	No	Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other No new EP measures
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	Riprap or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

Yes	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
Yes	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	No	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	NA	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes	No		Photo Documentation

SEDIMENT CONTROL

Yes	No	NA	Are Sediment Control practices located properly?
Yes	No	NA	Are Sediment Control practices installed properly?
Yes	No	NA	Are all soil stockpiles adequately contained?
Yes	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check
Inlet Protection	Silt Fence	Sediment Berms/Dikes
Sediment Trap	Polyacrylamide Flocculates	Other No new SC measures

Yes	No	Photo Documentation
Yes	No	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	No	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes	No		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	No		Is there evidence of work outside the limits of the approved plan?
Yes	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes No If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes No Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

--> Required Actions:

Type/Location of E&S Control | Repair Needed | Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	Wattles in SA71 exc area	Y	N	9/17/13	Will be needed once digging resumes — currently submerged
2	silt fencing on ATV road	N	N		
3	Wattles at pump location	N	N		
4	silt fence at drainage swale	N	N		
5	Silt fence at soil stockpile area	N	N		
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 10/1/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC & D

On-Site Responsible Person (if applicable): Aaron LaChance

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site?
			Recorded rainfall since previous inspection: _____ inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
(Yes)	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
(Yes)	No	Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other No new EP measures
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes	(No)		Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	NA	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes
Sediment Trap	Polyacrylamide Flocculates	Other No new SC measures

Yes	(No)	Photo Documentation
Yes	(No)	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes	(No)		Are there BMPs installed in streams or active channels?
Yes	(No)		If yes, have them removed unless specified on the plans and check for permits.
(Yes)	No	NA	Is there evidence of work outside the limits of the approved plan?
			Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

--> Required Actions:

Type/Location of E&S Control	Repair Needed	Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	wattles in SA71 exc. area	Y	N	9/17/13	will be needed once digging resumes - currently submerged. Diggings on hold for short term.
2	silt fencing on ATV road	N	N		
3	wattles at pump location	N	N		
4	Silt fencing at drainage swale	N	N		
5	silt fencing at stockpile area	N	N		
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DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 10/2/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Aaron LaChance

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site?
			Recorded rainfall since previous inspection: _____ inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No		Is construction following the phasing and sequencing plan?
(Yes)	No		Are Erosion Prevention measures located in the proper places?
(Yes)	No		Are Erosion Prevention measures installed correctly?
(Yes)	No		Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization
Topsoiling	Bench Terracing	Clearwater Diversion	Other
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	No new EP measures
Temporary Stabilization	Berms	(Riprap) or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?
Yes	(No)		Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	NA	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes
Sediment Trap	Polyacrylamide Flocculates	Other No new SC measures

Yes	(No)	Photo Documentation
Yes	(No)	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes	(No)		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions --> Required Actions:
Stop Work Order

Type/Location of E&S Control | Repair Needed | Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	wattles in SA71 exc. area	Y	N	9/17/13	same as previous - will be corrected once digging resumed
2	silt fence on ATV road	N	N		
3	wattles at pump location	N	N		
4	silt fence at drainage swale	N	N		
5	silt fencing at stockpile area	N	N		
6					
7					
8					
9					
10					

Sovereign Consulting Inc.
16 Chestnut Street, Suite 520
Foxboro, MA 02035
508-339-3200

Sovereign Consulting Inc.
4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 10/3/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: AC001.005 Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Aaron Lachance

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site?
			Recorded rainfall since previous inspection: _____ inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
(Yes)	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
(Yes)	No	Are Erosion Prevention measures protecting disturbed areas?

If Errosion Prevention measures are protecting disturbed areas, what are the types of protection:

Surface Roughening	Outlet Protection	Seeding	Stream Bank Stabilization	
Topsoiling	Bench Terracing	Clearwater Diversion	Other	
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	No new EP measures	
Temporary Stabilization	Berms	(Riprap) or Aggregate		
Polyacrylamide (PAM)	Sodding	Hydro-seeding		

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?

Yes (No) Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	NA	Are all soil stockpiles adequately contained?
(Yes)	No	NA	Are Sediment Control measures protecting off site areas?

If Sedment Control measures are protecting off site areas, what are the types of protection:

Sediment Pond	Vegetated Filter Strips	Ditch Check	
Inlet Protection	(Silt Fence)	Sediment Berms/Dikes	
Sediment Trap	Polyacrylamide Flocculates	Other	No new SC measures

Yes	(No)	Photo Documentation
Yes	(No)	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes	(No)		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions --> Required Actions:
Stop Work Order

Type/Location of E&S Control | Repair Needed | Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
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4 Open Square Way, Suite #307
Holyoke, MA 01040
413-540-0650

DEVENS EROSION PREVENTION AND SEDIMENT CONTROL SITE INSPECTION FORM

INSPECTION DATE: 10/8/13 INSPECTOR NAME: LMS QUALIFICATIONS: _____

PROJECT DATA

Project Name: Plow Shop Pond Project ID: ACOG1-005 Permit # _____

Contractor Name: RC&D

On-Site Responsible Person (if applicable): Aaron LaChance

Notice of Construction Filed	Yes	No	_____ (date)
Pre Construction Inspection	Yes	No	8/14/13 (date)
Pre Construction Conference	Yes	No	8/1/13 (date)

PROJECT INITIANTION

(Yes)	No		Are perimeter controls installed?
(Yes)	No		Are perimeter BMPs installed correctly?
Yes	No	(NA)	Dentention/sediment basin installed as the first land disturbing activity if applicable?
(Yes)	No		Is there a functional rain gauge located on the project site?
			Recorded rainfall since previous inspection: _____ inches
(Yes)	No		Do the logs show inspections every 7 calendar days or every 14 days and within 24 hours of any 1/2 inch or greater storm event?

EROSION PREVENTION

(Yes)	No	Is construction following the phasing and sequencing plan?
(Yes)	No	Are Erosion Prevention measures located in the proper places?
(Yes)	No	Are Erosion Prevention measures installed correctly?
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Topsoiling	Bench Terracing	Clearwater Diversion	Other No new EP measures
Ground Cover Plants	Mulching	RECPs (Rolled Erosion Control Products)	
Temporary Stabilization	Berms	(Riprap or Aggregate	
Polyacrylamide (PAM)	Sodding	Hydro-seeding	

(Yes)	No	NA	Are drainage conveyancies stabilized with vegetation and/or a channel lining if applicable?
(Yes)	No	NA	Are previously stabilized areas being maintained if applicable?
Yes	(No)	NA	Has activity on the site been temporarily ceased for 21 days or more?
Yes	No	(NA)	If activity has ceased for 21 days or more, have temporary stabilization measures been installed with 14 days?

Yes (No) Photo Documentation

SEDIMENT CONTROL

(Yes)	No	NA	Are Sediment Control practices located properly?
(Yes)	No	NA	Are Sediment Control practices installed properly?
(Yes)	No	NA	Are all soil stockpiles adequately contained?
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Sediment Trap	Polyacrylamide Flocculates	Other No new SC measures

Yes	(No)	Photo Documentation
Yes	(No)	Are any additional Erosion Prevention or Sediment Control Practices required?
Yes	(No)	Are any corrective actions required to on-site or perimeter practices? If yes, fully describe in Notes section below

OFFSITE IMPACT

Yes	(No)		Are there BMPs installed in streams or active channels? If yes, have them removed unless specified on the plans and check for permits.
Yes	(No)		Is there evidence of work outside the limits of the approved plan?
(Yes)	No	NA	Is construction being de-watered properly if applicable?

Are there off-site impacts? Yes (No) If yes, provide exact location and complete details in Notes section below.

Waterbody	None	Minimal	Needs Attention	Severe
Roadway	None	Minimal	Needs Attention	Severe
Adjacent Property	None	Minimal	Needs Attention	Severe
Air/Dust	None	Minimal	Needs Attention	Severe
Storm Sewer	None	Minimal	Needs Attention	Severe

Yes (No) Photo Documentation

CORRECTIVE ACTION

Yes No NA Have the proper actions been taken regarding previous deficiencies or violations if applicable?

What, if any, enforcement activity is required as a result of this inspection?

No Action
Unsafe Condition
Corrective Actions
Stop Work Order

--> Required Actions:

Type/Location of E&S Control | Repair Needed | Action Taken

Compliance Date: _____

FINAL STABILIZATION

Yes No Have all land disturbing activities at the site ceased?
Yes No Are there any areas of active erosion evident?
Yes No Is there perennial vegetative cover with a density of at least 70% of cover established for the area OR have equivalent measures such as mulches, RECPs, etc been employed?

Follow up inspection: _____ (date)

Yes No Photo Documentation

NOTES

CONDITION AND EFFECTIVENESS OF EROSION AND SEDIMENT (E&S) CONTROLS

	Type/Location of E&S Control	Repairs or Other Maintenance Needed? (Y/N)	Corrective Action Required? (Y/N)	Date on Which Maintenance or Corrective Action First Identified?	Notes
1	wattles in SA71 exc. area	Y	N	9/17/13	wattles still submerged - will be corrected once digging resumes
2	silt fence on ATV road	N	N		
3	wattles at pump location	N	N		
4	silt fence at drainage swale	N			
5	Silt fencing at soil stockpile area	N	N		
6					
7					
8					
9					
10					

APPENDIX D

Red Cove Confirmation Sampling Analytical Data

(See CD Included Separately)

ANALYTICAL REPORT

Lab Number:	L1317993
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/17/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1317993-01	RC-SD-43-001-091113	PLOW SHOP POND	09/11/13 14:55

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1317993
Project Number: AC001.005 **Report Date:** 09/17/13

Case Narrative (continued)

Report Submission

This report replaces the report issued September 16, 2013. The matrix description has been changed.

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

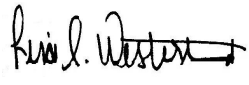
M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1317993-01: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit and LOD for arsenic. Since the sample was >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Lisa Westerlind

Title: Technical Director/Representative Date: 09/17/13

METALS

Project Name: DEVENS
Lab Number: L1317993
Project Number: AC001.005
Report Date: 09/17/13

SAMPLE RESULTS

Lab ID: L1317993-01
Client ID: RC-SD-43-001-091113
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 75%

Date Collected: 09/11/13 14:55
Date Received: 09/12/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	25.3	Q	mg/kg	0.106	0.013	5	09/13/13 13:00	09/16/13 11:26	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317993
Report Date: 09/17/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG635915-1										
Arsenic, Total	0.012	J	mg/kg	0.050	0.006	2	09/13/13 13:00	09/16/13 11:24	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1317993

Report Date: 09/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG635915-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	104		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG635915-4 WG635915-5 QC Sample: L1317994-02 Client ID: MS Sample												
Arsenic, Total	229.	149	393	110		388	112		80-120	1		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG635915-3 QC Sample: L1317994-02 Client ID: DUP Sample						
Arsenic, Total	229.	233	mg/kg	2		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

SAMPLE RESULTS

Lab ID: L1317993-01
Client ID: RC-SD-43-001-091113
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/11/13 14:55
Date Received: 09/12/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	74.6		%	0.100	0.100	1	-	09/13/13 09:50	30,2540G	DJ

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG635823-1 QC Sample: L1317994-02 Client ID: DUP Sample						
Solids, Total	42.8	41.9	%	2		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317993
Report Date: 09/17/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1317993-01A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1317993
Project Number:	AC001.005	**Report Date:**	09/17/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317993
Project Number:	AC001.005	**Report Date:**	09/17/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317993
Project Number:	AC001.005	**Report Date:**	09/17/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

1/2

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1317993

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED) 24 hr TAT

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information — Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total As by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total As by 6020	TOTAL # BOTTLES
L1317993-1	RC-SD-43-001-091113	9/11/13	14:55	sed	EF/SD	☒	1

Container Type	A	P	-	-	-	-	-	-	-	-	-	-		
Preservative	A	C	-	-	-	-	-	-	-	-	-	-		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
	091213 1535		9/11/13 15:15
	9/12/13		9/12/13 1830
	9/12/13 1530		9/12/13 1530
	9/13/13 0500	Mansfield Lab	9/13/13 0500

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1317828
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/13/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1317828-01	RC-SD-52-001-091113	PLOW SHOP POND	09/11/13 14:12
L1317828-02	EB-091113-02	PLOW SHOP POND	09/11/13 14:30
L1317828-03	FD-091113-01	PLOW SHOP POND	09/11/13 14:12

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1317828
Project Number: AC001.005 **Report Date:** 09/13/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

The initial calibration blank and continuous calibration blank, associated with L1317828-01 and -03, have concentrations above the LOD for arsenic.

The initial calibration blank and continuous calibration blank, associated with L1317828-02, have concentrations above the LOD for arsenic. Since the sample was non-detect for this target analyte, no further

Project Name:	DEVENS	**Lab Number:**	L1317828
Project Number:	AC001.005	**Report Date:**	09/13/13

Case Narrative (continued)

actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/13/13

METALS

Project Name: DEVENS
Lab Number: L1317828
Project Number: AC001.005
Report Date: 09/13/13

SAMPLE RESULTS

Lab ID: L1317828-01
Client ID: RC-SD-52-001-091113
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 68%

Date Collected: 09/11/13 14:12
Date Received: 09/11/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	39.5	Q	mg/kg	0.105	0.013	5	09/12/13 10:00	09/13/13 10:20	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317828
Project Number: AC001.005
Report Date: 09/13/13

SAMPLE RESULTS

Lab ID: L1317828-02
Client ID: EB-091113-02
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/11/13 14:30
Date Received: 09/11/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	ND	Q	ug/l	0.5000	0.0850	1	09/12/13 10:00	09/13/13 09:51	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317828
Project Number: AC001.005
Report Date: 09/13/13

SAMPLE RESULTS

Lab ID: L1317828-03
Client ID: FD-091113-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 73%

Date Collected: 09/11/13 14:12
Date Received: 09/11/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	27.6	Q	mg/kg	0.038	0.005	2	09/12/13 10:00	09/13/13 10:25	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317828
Report Date: 09/13/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01,03 Batch: WG635581-1										
Arsenic, Total	ND		mg/kg	0.050	0.006	2	09/12/13 10:00	09/13/13 10:18	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02 Batch: WG635583-1										
Arsenic, Total	ND		ug/l	0.5000	0.0850	1	09/12/13 10:00	09/13/13 09:50	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1317828

Report Date: 09/13/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03 Batch: WG635581-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	100		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG635583-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	97		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03 QC Batch ID: WG635581-4 WG635581-5 QC Sample: L1317828-01 Client ID: RC-SD-52-001-091113												
Arsenic, Total	39.5	85	116	90		123	102		80-120	6		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG635583-4 QC Sample: L1317828-02 Client ID: EB-091113-02												
Arsenic, Total	ND	500	512.9	102		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03 QC Batch ID: WG635581-3 QC Sample: L1317828-01 Client ID: RC-SD-52-001-091113						
Arsenic, Total	39.5	45.2	mg/kg	13		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG635583-3 QC Sample: L1317828-02 Client ID: EB-091113-02						
Arsenic, Total	ND	ND	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

SAMPLE RESULTS

Lab ID: L1317828-01
Client ID: RC-SD-52-001-091113
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/11/13 14:12
Date Received: 09/11/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	68.0		%	0.100	0.100	1	-	09/12/13 09:03	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

SAMPLE RESULTS

Lab ID: L1317828-03
Client ID: FD-091113-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/11/13 14:12
Date Received: 09/11/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	73.2		%	0.100	0.100	1	-	09/12/13 09:03	30,2540G	KB

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01,03 QC Batch ID: WG635565-1 QC Sample: L1317828-01 Client ID: RC-SD-52-001-091113						
Solids, Total	68.0	68.7	%	1		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317828
Report Date: 09/13/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1317828-01A	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1317828-01B	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	A2-DOD-AS-6020T(180)
L1317828-01C	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	A2-DOD-AS-6020T(180)
L1317828-02A	Plastic 250ml HNO3 preserved	A	<2	3.9	Y	Absent	A2-DOD-AS-6020T(180)
L1317828-03A	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1317828
Project Number:	AC001.005	**Report Date:**	09/13/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317828
Project Number:	AC001.005	**Report Date:**	09/13/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317828
Project Number:	AC001.005	**Report Date:**	09/13/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/11/13

ALPHA Job #: L1317828

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED) 24 HR TAT

Due Date: 9/12/13 Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL ☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total As 6,6020

SAMPLE HANDLING

Filtration
☐ Done
☐ Not Needed
☐ Lab to do

Preservation
☐ Lab to do

(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials													Sample Specific Comments
17828 1	RC-SD-52-001-091113	9/11/13	14:12	sed	EF/SD	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	MS/MSD
2	EB-091113-02	9/11/13	14:30	aq	EF/SD	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
3	FD-091113-01	9/11/13	14:12	sed	EF/SD	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
						☐

ANALYTICAL REPORT

Lab Number:	L1317994
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/16/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1317994-01	RC-SD-51-001-091213	PLOW SHOP POND	09/12/13 10:00
L1317994-02	RC-SD-42-001-091213	PLOW SHOP POND	09/12/13 11:15
L1317994-03	EB-091213-01	PLOW SHOP POND	09/12/13 11:45
L1317994-04	RC-SD-32-001-091213	PLOW SHOP POND	09/12/13 14:15
L1317994-05	FD-091213-01	PLOW SHOP POND	09/12/13 11:15

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1317994
Project Number: AC001.005 **Report Date:** 09/16/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1317994-01, -02, -04 and -05: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit and LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1317994-03: The initial calibration blank and continuous calibration blank have concentrations above the

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317994
Report Date: 09/16/13

Case Narrative (continued)

reporting limit and LOD for arsenic. Since the sample was below the reporting limit for this target analyte, no further action was taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/16/13

METALS

Project Name:	DEVENS	**Lab Number:**	L1317994
Project Number:	AC001.005	**Report Date:**	09/16/13

SAMPLE RESULTS

Lab ID:	L1317994-01	Date Collected:	09/12/13 10:00
Client ID:	RC-SD-51-001-091213	Date Received:	09/12/13
Sample Location:	PLOW SHOP POND	Field Prep:	Not Specified
Matrix:	Sediment		
Percent Solids:	52%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	183	Q	mg/kg	0.134	0.017	5	09/13/13 13:00	09/16/13 11:27	EPA 3050B	1,6020A	PD

Project Name:	DEVENS	**Lab Number:**	L1317994
Project Number:	AC001.005	**Report Date:**	09/16/13

SAMPLE RESULTS

Lab ID:	L1317994-02	Date Collected:	09/12/13 11:15
Client ID:	RC-SD-42-001-091213	Date Received:	09/12/13
Sample Location:	PLOW SHOP POND	Field Prep:	Not Specified
Matrix:	Sediment		
Percent Solids:	43%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	229	Q	mg/kg	0.180	0.022	5	09/13/13 13:00	09/16/13 11:29	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317994
Project Number: AC001.005
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-03
Client ID: EB-091213-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/12/13 11:45
Date Received: 09/12/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.1361	JQ	ug/l	0.5000	0.0850	1	09/13/13 13:00	09/16/13 12:08	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317994
Project Number: AC001.005
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-04
Client ID: RC-SD-32-001-091213
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 74%

Date Collected: 09/12/13 14:15
Date Received: 09/12/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	35.6	Q	mg/kg	0.091	0.011	5	09/13/13 13:00	09/16/13 11:33	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317994
Project Number: AC001.005
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-05
Client ID: FD-091213-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 49%

Date Collected: 09/12/13 11:15
Date Received: 09/12/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	216	Q	mg/kg	0.144	0.018	5	09/13/13 13:00	09/16/13 11:34	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317994
Report Date: 09/16/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02,04-05 Batch: WG635915-1										
Arsenic, Total	0.012	J	mg/kg	0.050	0.006	2	09/13/13 13:00	09/16/13 11:24	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03 Batch: WG635916-1										
Arsenic, Total	0.1443	J	ug/l	0.5000	0.0850	1	09/13/13 13:00	09/16/13 12:03	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1317994

Report Date: 09/16/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-05 Batch: WG635915-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	104		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG635916-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	94		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG635915-4 WG635915-5 QC Sample: L1317994-02 Client ID: RC-SD-42-001-091213												
Arsenic, Total	229.	149	393	110		388	112		80-120	1		20
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG635916-4 QC Sample: L1317994-03 Client ID: EB-091213-01												
Arsenic, Total	0.1361J	500	473.7	95		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG635915-3 QC Sample: L1317994-02 Client ID: RC-SD-42-001-091213						
Arsenic, Total	229.	233	mg/kg	2		20
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG635916-3 QC Sample: L1317994-03 Client ID: EB-091213-01						
Arsenic, Total	0.1361J	0.0992J	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-01
Client ID: RC-SD-51-001-091213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/12/13 10:00
Date Received: 09/12/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	51.9		%	0.100	0.100	1	-	09/13/13 09:50	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-02
Client ID: RC-SD-42-001-091213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/12/13 11:15
Date Received: 09/12/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	42.8		%	0.100	0.100	1	-	09/13/13 09:50	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-04
Client ID: RC-SD-32-001-091213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/12/13 14:15
Date Received: 09/12/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	73.7		%	0.100	0.100	1	-	09/13/13 09:50	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

SAMPLE RESULTS

Lab ID: L1317994-05
Client ID: FD-091213-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/12/13 11:15
Date Received: 09/12/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	48.6		%	0.100	0.100	1	-	09/13/13 09:50	30,2540G	DJ

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG635823-1 QC Sample: L1317994-02 Client ID: RC-SD-42-001-091213						
Solids, Total	42.8	41.9	%	2		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317994
Report Date: 09/16/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1317994-01A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1317994-02A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1317994-02B	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1317994-02C	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1317994-03A	Plastic 250ml HNO3 preserved	A	<2	2.2	Y	Absent	A2-DOD-AS-6020T(180)
L1317994-04A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1317994-05A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1317994
Project Number:	AC001.005	**Report Date:**	09/16/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317994
Project Number:	AC001.005	**Report Date:**	09/16/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317994
Project Number:	AC001.005	**Report Date:**	09/16/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

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ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1317994

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)
24 HR TAT
Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information — Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

As by code

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials														TOTAL # BOTTLES
L1317994-1	RC-SD-51-001-091213	091213	1000	SD	SD EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
-2	RC-SD-44-001-091213	091213	1115	SD	SD EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	MS/MSD	4
-3	EB-091213-01	091213	1145	AQ	SD EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
-4	RC-SD-32-001-091213	091213	1415	SD	SD EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
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						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		

Container Type	P	A	-	-	-	-	-	-	-	-	-	-	
Preservative	C	A	-	-	-	-	-	-	-	-	-	-	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
	091213		9/12/13 1430
	9/12/13 1530		9/12/13 1530
	9/13/13 0500	Mansfield Lab	9/13/13 05:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1317994

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)
24 HR TAT
Due Date: Time:

Report Information Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

"RC-SD-42-001-091213" WJB

ANALYSIS

As by Logdo

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials												Sample Specific Comments	TOTAL # BOTTLES
L1317994-1	RC-SD-51-001-091213	091213	1000	SD	SD EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
-2	RC-SD-42-001-091213	091213	1115	SD	SD E F	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	MS/MSD	4
-3	EB-091213-01	091213	1145	AQ	SD EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
-4	RC-SD-32-001-091213	091213	1415	SD	SD E F	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
-5	FD-091213-01	091213	1115	SD	SD E F	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	WJB					☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		

Container Type	P	A	-	-	-	-	-	-	-	-	-	-	
Preservative	C	A	-	-	-	-	-	-	-	-	-	-	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-01(I) (rev. 3-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Em Ag	091213	Pat Anno	9/12/13 1530

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1318098
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/17/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1318098-01	RC-SD-33-001-091313	PLOW SHOP POND	09/13/13 13:22
L1318098-02	FD-091313-01	PLOW SHOP POND	09/13/13 13:22
L1318098-03	EB-091313-01	PLOW SHOP POND	09/13/13 13:40

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1318098
Project Number: AC001.005 **Report Date:** 09/17/13

Case Narrative (continued)

Report Submission
Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes
M1 Split or tailing peak, auto integration stopped early resulting in false low area count.
M2 Peak not found by automatic integration algorithm.
M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4 Poor automated baseline construction.
M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7 A qualifier ion was manually integrated (only for GC/MS data).
M8 Integration of individual analyte eluting on top of an unresolved complex.
M9 Other: Explain on chromatogram.

Total Metals
The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".
The initial calibration blank and continuous calibration blank, associated with L1318098-01 and -02, have concentrations above the reporting limit and LOD for arsenic. Since the associated samples are 10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are

Project Name: DEVENS **Lab Number:** L1318098
Project Number: AC001.005 **Report Date:** 09/17/13

Case Narrative (continued)

reported.

The initial calibration blank and continuous calibration blank, associated with L1318098-03, have concentrations above the LOD for arsenic. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/17/13

METALS

Project Name: DEVENS
Lab Number: L1318098
Project Number: AC001.005
Report Date: 09/17/13

SAMPLE RESULTS

Lab ID: L1318098-01
Client ID: RC-SD-33-001-091313
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 13%

Date Collected: 09/13/13 13:22
Date Received: 09/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	664	Q	mg/kg	1.04	0.129	10	09/16/13 12:00	09/17/13 10:31	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1318098
Report Date: 09/17/13

SAMPLE RESULTS

Lab ID: L1318098-02
Client ID: FD-091313-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 13%

Date Collected: 09/13/13 13:22
Date Received: 09/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	632	Q	mg/kg	0.531	0.066	5	09/16/13 12:00	09/17/13 10:35	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1318098
Report Date: 09/17/13

SAMPLE RESULTS

Lab ID: L1318098-03
Client ID: EB-091313-01
Sample Location: PLOW SHOP POND
Matrix: Water
Date Collected: 09/13/13 13:40
Date Received: 09/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	ND	Q	ug/l	0.5000	0.0850	1	09/16/13 12:00	09/17/13 10:58	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1318098
Report Date: 09/17/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG636412-1										
Arsenic, Total	0.012	J	mg/kg	0.050	0.006	2	09/16/13 12:00	09/17/13 10:22	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03 Batch: WG636416-1										
Arsenic, Total	0.0911	J	ug/l	0.5000	0.0850	1	09/16/13 12:00	09/17/13 10:52	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1318098

Report Date: 09/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG636412-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	101		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG636416-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	102		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG636412-4 WG636412-5 QC Sample: L1318098-01 Client ID: RC-SD-33-001-091313												
Arsenic, Total	664.	417	1040	90		1070	97		80-120	3		20
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG636416-4 QC Sample: L1318098-03 Client ID: EB-091313-01												
Arsenic, Total	ND	500	502.3	100		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG636412-3 QC Sample: L1318098-01 Client ID: RC-SD-33-001-091313						
Arsenic, Total	664.	638	mg/kg	4		20
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG636416-3 QC Sample: L1318098-03 Client ID: EB-091313-01						
Arsenic, Total	ND	ND	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

SAMPLE RESULTS

Lab ID: L1318098-01
Client ID: RC-SD-33-001-091313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/13/13 13:22
Date Received: 09/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	12.7		%	0.100	0.100	1	-	09/16/13 10:44	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

SAMPLE RESULTS

Lab ID: L1318098-02
Client ID: FD-091313-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/13/13 13:22
Date Received: 09/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	12.8		%	0.100	0.100	1	-	09/16/13 10:44	30,2540G	DJ

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG636370-1 QC Sample: L1318098-01 Client ID: RC-SD-33-001-091313						
Solids, Total	12.7	12.7	%	0		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318098
Report Date: 09/17/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1318098-01A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318098-01B	Amber 120ml unpreserved	A	N/A	3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318098-01C	Amber 120ml unpreserved	A	N/A	3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318098-02A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	A2-DOD-AS-6020T(180)
L1318098-03A	Plastic 250ml HNO3 preserved	A	<2	3	Y	Absent	A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1318098
Project Number:	AC001.005	**Report Date:**	09/17/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318098
Project Number:	AC001.005	**Report Date:**	09/17/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318098
Project Number:	AC001.005	**Report Date:**	09/17/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

CHAIN OF CUSTODY

PAGE 2/2 OF

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/13/13 | ALPHA Job #: L1318096

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)
24 HR TAT
Due Date: 9/16/13 Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total As by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials														
1809801	RC-SD-33-001-091313	091313	1322	SD	EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	ms/msD	3
.2	FD-091313-01	091313	1322	SD	EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
.3	EB-091313-01	091313	1340	~~SD~~ EF AQ	EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		

Container Type	P	A	-	-	-	-	-	-	-	-	-	-
Preservative	C	A	-	-	-	-	-	-	-	-	-	-

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Eric Foley	091313	Richard Scott	9/13/13 1531
Richard Scott	9/13/13 1645	Courier fridge	9/13/13 1645
Courier fridge	9/14/13 0030		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1318326
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/19/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1318326-01	RC-SD-50-001-091713	PLOW SHOP POND	09/17/13 14:55
L1318326-02	RC-SD-55-001-091713	PLOW SHOP POND	09/17/13 15:00
L1318326-03	FD-091713-01	PLOW SHOP POND	09/17/13 14:55
L1318326-04	EB-091713-01	PLOW SHOP POND	09/17/13 15:15

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1318326
Project Number: AC001.005 **Report Date:** 09/19/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1318326-01 through -03: The initial calibration blank and continuing calibration blank have concentrations above the LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1318326-04: The initial calibration blank and continuing calibration blank have concentrations above the LOD

Project Name: DEVENS **Lab Number:** L1318326
Project Number: AC001.005 **Report Date:** 09/19/13

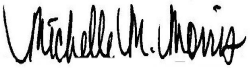
Case Narrative (continued)

for arsenic. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

The WG637136-4/-5 MS/MSD recoveries, performed on L1318326-01, are above the acceptance criteria for arsenic (248%/266%); however, the associated LCS recovery was within criteria. No further action was taken. The parent sample (L1318326-01) should be qualified as "J" for this analyte.

The WG637136-3 Laboratory Duplicate RPD, performed on L1318326-01, is outside the acceptance criteria for arsenic (35%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 09/19/13

METALS

Project Name: DEVENS
Lab Number: L1318326
Project Number: AC001.005
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318326-01
Client ID: RC-SD-50-001-091713
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 31%

Date Collected: 09/17/13 14:55
Date Received: 09/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	510	Q	mg/kg	1.09	0.134	25	09/18/13 18:00	09/19/13 11:16	EPA 3050B	1,6020A	PD

Project Name:	DEVENS	**Lab Number:**	L1318326
Project Number:	AC001.005	**Report Date:**	09/19/13

SAMPLE RESULTS

Lab ID:	L1318326-02	Date Collected:	09/17/13 15:00
Client ID:	RC-SD-55-001-091713	Date Received:	09/17/13
Sample Location:	PLOW SHOP POND	Field Prep:	Not Specified
Matrix:	Sediment		
Percent Solids:	70%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	29.2	Q	mg/kg	0.110	0.014	5	09/18/13 18:00	09/19/13 11:23	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1318326
Project Number: AC001.005
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318326-03
Client ID: FD-091713-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 31%

Date Collected: 09/17/13 14:55
Date Received: 09/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	543	Q	mg/kg	0.436	0.054	10	09/18/13 18:00	09/19/13 11:24	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1318326
Project Number: AC001.005
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318326-04
Client ID: EB-091713-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/17/13 15:15
Date Received: 09/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.1975	JQ	ug/l	0.5000	0.0850	1	09/18/13 18:00	09/19/13 11:56	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1318326
Report Date: 09/19/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG637136-1										
Arsenic, Total	ND		mg/kg	0.050	0.006	2	09/18/13 18:00	09/19/13 11:14	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 04 Batch: WG637138-1										
Arsenic, Total	ND		ug/l	0.5000	0.0850	1	09/18/13 18:00	09/19/13 11:53	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1318326

Report Date: 09/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG637136-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	99		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 04 Batch: WG637138-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	94		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG637136-4 WG637136-5 QC Sample: L1318326-01 Client ID: RC-SD-50-001-091713												
Arsenic, Total	510.	173	938	**248**	Q	973	**266**	Q	80-120	4		20
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG637136-7 WG637136-8 QC Sample: L1318417-01 Client ID: MS Sample												
Arsenic, Total	2910	284	2660	**0**	Q	3430	**185**	Q	80-120	**25**	Q	20
Total Metals - Mansfield Lab Associated sample(s): 04 QC Batch ID: WG637138-4 QC Sample: L1318326-04 Client ID: EB-091713-01												
Arsenic, Total	0.1975J	500	484.5	97		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG637136-3 QC Sample: L1318326-01 Client ID: RC-SD-50-001-091713						
Arsenic, Total	510.	726	mg/kg	**35**	Q	20
Total Metals - Mansfield Lab Associated sample(s): 04 QC Batch ID: WG637138-3 QC Sample: L1318326-04 Client ID: EB-091713-01						
Arsenic, Total	0.1975J	ND	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318326-01
Client ID: RC-SD-50-001-091713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/17/13 14:55
Date Received: 09/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	31.1		%	0.100	0.100	1	-	09/18/13 10:37	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318326-02
Client ID: RC-SD-55-001-091713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/17/13 15:00
Date Received: 09/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	70.0		%	0.100	0.100	1	-	09/18/13 10:37	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318326-03
Client ID: FD-091713-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/17/13 14:55
Date Received: 09/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	30.8		%	0.100	0.100	1	-	09/18/13 10:37	30,2540G	DJ

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG637073-1 QC Sample: L1318326-01 Client ID: RC-SD-50-001-091713						
Solids, Total	31.1	31.3	%	1		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318326
Report Date: 09/19/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1318326-01A	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318326-01B	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318326-01C	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318326-02A	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-DOD-AS-6020T(180)
L1318326-03A	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-DOD-AS-6020T(180)
L1318326-04A	Plastic 250ml HNO3 preserved	A	<2	2.3	Y	Absent	A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1318326
Project Number:	AC001.005	**Report Date:**	09/19/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318326
Project Number:	AC001.005	**Report Date:**	09/19/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318326
Project Number:	AC001.005	**Report Date:**	09/19/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

2/2

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1318326

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)
24 hr TAT
Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total As by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total As by 6020	Sample Specific Comments	TOTAL # BOTTLES
L1318326-1	RC-SD-50-001-091713	9/17/13	1455	Sed.		☒	MS/MSD	3
-2	RC-SD-55-001-091713	9/17/13	1500	Sed.		☒		1
-3	FD-091713-01	9/17/13	1455	Sed		☒		1
-4	EB-091713-01	9/17/13	1515	~~Sed~~ AQ		☒		1

Container Type: P A
Preservative: C A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Eric Tey	9/17/13		
	9/17/13 1621		9/17/13 1621
William Mell	9/18/13		
Pat Allen	9/18/13 0905		9/18/13 0905

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1318417
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/19/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1318417-01	RC-SD-41-001-091813	PLOW SHOP POND	09/18/13 14:00
L1318417-02	FD-091813-01	PLOW SHOP POND	09/18/13 14:00
L1318417-03	EB-091813-01	PLOW SHOP POND	09/18/13 14:30

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1318417
Project Number: AC001.005 **Report Date:** 09/19/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1318417-01 through -02: The initial calibration blank and continuing calibration blank have concentrations above the LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1318417-03: The initial calibration blank and continuing calibration blank have concentrations above the LOD

Project Name:	DEVENS	**Lab Number:**	L1318417
Project Number:	AC001.005	**Report Date:**	09/19/13

Case Narrative (continued)

for arsenic. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

The WG637136-7/-8 MS/MSD recoveries for arsenic (0%/185%), performed on L1318417-01, do not apply because the sample concentration is greater than four times the spike amount added. In addition, the WG637136-7/-8 MS/MSD RPD, performed on L1318417-01, is above the acceptance criteria for arsenic (25%).

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/19/13

METALS

Project Name: DEVENS
Lab Number: L1318417
Project Number: AC001.005
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318417-01
Client ID: RC-SD-41-001-091813
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 20%

Date Collected: 09/18/13 14:00
Date Received: 09/18/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2910	Q	mg/kg	1.78	0.220	25	09/18/13 18:00	09/19/13 11:25	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1318417
Project Number: AC001.005
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318417-02
Client ID: FD-091813-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 21%

Date Collected: 09/18/13 14:00
Date Received: 09/18/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2510	Q	mg/kg	1.72	0.213	25	09/18/13 18:00	09/19/13 11:28	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1318417
Project Number: AC001.005
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318417-03
Client ID: EB-091813-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/18/13 14:30
Date Received: 09/18/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.1371	JQ	ug/l	0.5000	0.0850	1	09/18/13 18:00	09/19/13 12:04	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1318417
Report Date: 09/19/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG637136-1										
Arsenic, Total	ND		mg/kg	0.050	0.006	2	09/18/13 18:00	09/19/13 11:14	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03 Batch: WG637138-1										
Arsenic, Total	ND		ug/l	0.5000	0.0850	1	09/18/13 18:00	09/19/13 11:53	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1318417

Report Date: 09/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG637136-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	99		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG637138-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	94		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637136-4 WG637136-5 QC Sample: L1318326-01 Client ID: MS Sample												
Arsenic, Total	510.	173	938	**248**	Q	973	**266**	Q	80-120	4		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637136-7 WG637136-8 QC Sample: L1318417-01 Client ID: RC-SD-41-001-091813												
Arsenic, Total	2910	284	2660	**0**	Q	3430	**185**	Q	80-120	**25**	Q	20
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG637138-4 QC Sample: L1318326-04 Client ID: MS Sample												
Arsenic, Total	0.1975J	500	484.5	97		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637136-3 QC Sample: L1318326-01 Client ID: DUP Sample						
Arsenic, Total	510.	726	mg/kg	**35**	Q	20
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG637138-3 QC Sample: L1318326-04 Client ID: DUP Sample						
Arsenic, Total	0.1975J	ND	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318417-01
Client ID: RC-SD-41-001-091813
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/18/13 14:00
Date Received: 09/18/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	20.1		%	0.100	0.100	1	-	09/19/13 07:25	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

SAMPLE RESULTS

Lab ID: L1318417-02
Client ID: FD-091813-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/18/13 14:00
Date Received: 09/18/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	20.7		%	0.100	0.100	1	-	09/19/13 07:25	30,2540G	DJ

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637319-1 QC Sample: L1318417-01 Client ID: RC-SD-41-001-091813						
Solids, Total	20.1	20.5	%	2		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318417
Report Date: 09/19/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1318417-01A	Amber 120ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318417-01B	Amber 120ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318417-01C	Amber 120ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318417-02A	Amber 120ml unpreserved	A	N/A	2.9	Y	Absent	A2-DOD-AS-6020T(180)
L1318417-03A	Plastic 250ml HNO3 preserved	A	<2	2.9	Y	Absent	A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1318417
Project Number:	AC001.005	**Report Date:**	09/19/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318417
Project Number:	AC001.005	**Report Date:**	09/19/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318417
Project Number:	AC001.005	**Report Date:**	09/19/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL
World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1318417

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 Hr TAT

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Arsenic by 6020	Sample Specific Comments	TOTAL # BOTTLES
18417 01	RC-SD-41-001-091813	091813	1400	SD	EF	☒	MS/MSD	3
02	FD-091813-01	↓	1400	SD	EF	☒		1
↓ 03	EB-091813-01	↓	1430	AQ	EF	☒		1

Container Type	P	A	-	-	-	-	-	-	-	-	-	-
Preservative	C	A	-	-	-	-	-	-	-	-	-	-

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Erin Foley	9/18/13		9/18/13 1445
KSM	9/18/13 1655		9/18/13 16:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1318528
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/23/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1318528-01	RC-SD-40-001-091913	PLOW SHOP POND	09/19/13 13:00
L1318528-02	FD-091913-01	PLOW SHOP POND	09/19/13 13:00
L1318528-03	EB-091913-01	PLOW SHOP POND	09/19/13 13:30

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1318528
Project Number: AC001.005 **Report Date:** 09/23/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1318528-01 and -02: The continuing calibration blanks have concentrations above the LOD for arsenic. Since the sample concentrations were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1318528-03: The continuing calibration blanks have concentrations above the LOD for arsenic. Since the

Project Name: DEVENS **Lab Number:** L1318528
Project Number: AC001.005 **Report Date:** 09/23/13

Case Narrative (continued)

sample concentration was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

WG637815: A laboratory duplicate and/or matrix spike could not be performed due to insufficient sample volume available for analysis.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/23/13

METALS

Project Name: DEVENS
Lab Number: L1318528
Project Number: AC001.005
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318528-01
Client ID: RC-SD-40-001-091913
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 27%

Date Collected: 09/19/13 13:00
Date Received: 09/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2090	Q	mg/kg	2.59	0.320	50	09/20/13 15:00	09/23/13 11:18	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1318528
Project Number: AC001.005
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318528-02
Client ID: FD-091913-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 27%

Date Collected: 09/19/13 13:00
Date Received: 09/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2690	Q	mg/kg	2.63	0.325	50	09/20/13 15:00	09/23/13 11:22	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1318528
Project Number: AC001.005
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318528-03
Client ID: EB-091913-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/19/13 13:30
Date Received: 09/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.1277	JQ	ug/l	0.5000	0.0850	1	09/20/13 15:00	09/23/13 10:59	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1318528
Report Date: 09/23/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03 Batch: WG637815-1										
Arsenic, Total	0.1981	J	ug/l	0.5000	0.0850	1	09/20/13 15:00	09/23/13 10:50	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG637823-1										
Arsenic, Total	ND		mg/kg	0.050	0.006	2	09/20/13 15:00	09/23/13 11:09	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1318528

Report Date: 09/23/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG637815-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	103		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG637823-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	105		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637823-4 WG637823-5 QC Sample: L1318528-01 Client ID: RC-SD-40-001-091913												
Arsenic, Total	2090	210	2330	114		2290	96		80-120	2		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637823-3 QC Sample: L1318528-01 Client ID: RC-SD-40-001-091913						
Arsenic, Total	2090	2160	mg/kg	3		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318528-01
Client ID: RC-SD-40-001-091913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/19/13 13:00
Date Received: 09/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	26.5		%	0.100	0.100	1	-	09/20/13 11:40	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318528-02
Client ID: FD-091913-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/19/13 13:00
Date Received: 09/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	27.0		%	0.100	0.100	1	-	09/20/13 11:40	30,2540G	DJ

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637758-1 QC Sample: L1318528-01 Client ID: RC-SD-40-001-091913						
Solids, Total	26.5	26.8	%	1		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318528
Report Date: 09/23/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1318528-01A	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318528-01B	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318528-01C	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318528-02A	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318528-03A	Plastic 250ml HNO3 preserved	A	<2	2.3	Y	Absent	A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1318528
Project Number:	AC001.005	**Report Date:**	09/23/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318528
Project Number:	AC001.005	**Report Date:**	09/23/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318528
Project Number:	AC001.005	**Report Date:**	09/23/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL
"World Class Chemistry"

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1318528

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)
24 HR TAT
Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes	☒ No	Are MCP Analytical Methods Required?
☐ Yes	☒ No	Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Arsenic by 6020	Sample Specific Comments	TOTAL # BOTTLES
18528-01	RC-SD-40-001-091913	9/19/13	1300	SD	EF	☒	MS/MSD	3
02	FD-091913-01	9/19/13	1300	SD	EF	☒		1
03	EB-091913-01	9/19/13	1330	AQ	EF	☒		1

Container Type	P	A	-	-	-	-	-	-	-	-	-	-		
Preservative	C	A	-	-	-	-	-	-	-	-	-	-		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
	9/19/13		9/19/13 1430
			9/20/13 930
9/20/13 840		9/20/13 8:40	

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1318731
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/24/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1318731-01	RC-SD-49-001-092013	PLOW SHOP POND	09/20/13 11:35
L1318731-02	EB-092013-01	PLOW SHOP POND	09/20/13 12:00
L1318731-03	RC-SD-53-001-092013	PLOW SHOP POND	09/20/13 14:00

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1318731
Project Number: AC001.005 **Report Date:** 09/24/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1318731-01 and -03: The continuous calibration blanks have concentrations above the LOD and reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1318731-02: The initial calibration blank has concentrations above the LOD for arsenic. Since the sample

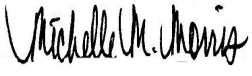
Project Name: DEVENS **Lab Number:** L1318731
Project Number: AC001.005 **Report Date:** 09/24/13

Case Narrative (continued)

was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

The WG638351-5 MSD recovery, performed on L1318731-01, is above the acceptance criteria for arsenic (141%); however, the associated LCS and MS recoveries were within criteria. No further action was taken. The parent sample (L1318731-01) should be qualified as "J" for this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 09/24/13

METALS

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1318731
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318731-01
Client ID: RC-SD-49-001-092013
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 55%

Date Collected: 09/20/13 11:35
Date Received: 09/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	274	Q	mg/kg	0.252	0.031	10	09/23/13 16:30	09/24/13 10:41	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1318731
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318731-02
Client ID: EB-092013-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/20/13 12:00
Date Received: 09/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	ND	Q	ug/l	0.5000	0.0850	1	09/23/13 16:30	09/24/13 10:24	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1318731
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318731-03
Client ID: RC-SD-53-001-092013
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 93%

Date Collected: 09/20/13 14:00
Date Received: 09/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	6.81	Q	mg/kg	0.030	0.004	2	09/23/13 16:30	09/24/13 10:45	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1318731
Report Date: 09/24/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01,03 Batch: WG638351-1										
Arsenic, Total	ND		mg/kg	0.050	0.006	2	09/23/13 16:30	09/24/13 10:31	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02 Batch: WG638352-1										
Arsenic, Total	ND		ug/l	0.5000	0.0850	1	09/23/13 16:30	09/24/13 10:17	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1318731

Report Date: 09/24/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03 Batch: WG638351-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	105		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG638352-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	102		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03 QC Batch ID: WG638351-4 WG638351-5 QC Sample: L1318731-01 Client ID: RC-SD-49-001-092013												
Arsenic, Total	274.	101	396	120		416	**141**	Q	80-120	5		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG638352-4 QC Sample: L1318731-02 Client ID: EB-092013-01												
Arsenic, Total	ND	500	496.1	99		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03 QC Batch ID: WG638351-3 QC Sample: L1318731-01 Client ID: RC-SD-49-001-092013						
Arsenic, Total	274.	331	mg/kg	19		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG638352-3 QC Sample: L1318731-02 Client ID: EB-092013-01						
Arsenic, Total	ND	ND	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318731-01
Client ID: RC-SD-49-001-092013
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/20/13 11:35
Date Received: 09/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	54.8		%	0.100	0.100	1	-	09/23/13 11:18	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318731-03
Client ID: RC-SD-53-001-092013
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/20/13 14:00
Date Received: 09/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	92.8		%	0.100	0.100	1	-	09/23/13 11:18	30,2540G	DJ

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01,03 QC Batch ID: WG638221-1 QC Sample: L1318731-01 Client ID: RC-SD-49-001-092013						
Solids, Total	54.8	56.0	%	2		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318731
Report Date: 09/24/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1318731-01A	Amber 120ml unpreserved	A	N/A	4.4	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318731-02A	Plastic 250ml HNO3 preserved	A	<2	4.4	Y	Absent	A2-DOD-AS-6020T(180)
L1318731-03A	Glass 100ml unpreserved	A	N/A	4.4	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1318731
Project Number:	AC001.005	**Report Date:**	09/24/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318731
Project Number:	AC001.005	**Report Date:**	09/24/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318731
Project Number:	AC001.005	**Report Date:**	09/24/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1318731

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Report Information

☐ FAX ☒ EMAIL ☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 HR TAT

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Arsenic by 6020	Sample Specific Comments	TOTAL # BOTTLES
L1318731-1	RC-SD-49-001-092013	9/20/13	1135	SD	EF	☒		1
-2	EB-092013-01	9/20/13	1200	AQ	EF	☒		1
-3	RC-SD-53-001-092013	9/20/13	1400	SD	EF	☒		1

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	P	A	-	-	-	-	-	-	-	-	-	-
Preservative	C	A	-	-	-	-	-	-	-	-	-	-

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Eric Lay	9/20/13 1500	Rec Lapie	9/20/13 15
Rec Lapie	9/20/13 1515	William McClure	9/20/13 1515
William McClure	9/20/13 20:00	Pat Cune	9/23/13 8:00
Pat Cune	9/23/13 9:45	[illegible]	9/23/13 0945

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1318780
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/24/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1318780-01	RC-SD-54-001-092313	PLOW SHOP POND	09/23/13 12:00
L1318780-02	EB-092313-01	PLOW SHOP POND	09/23/13 12:15

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1318780
Project Number: AC001.005 **Report Date:** 09/24/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Sample Receipt

The samples were received at the laboratory below the required temperature range. The samples were transported to the laboratory in a cooler with ice but were not frozen upon receipt.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

Project Name:	DEVENS	**Lab Number:**	L1318780
Project Number:	AC001.005	**Report Date:**	09/24/13

Case Narrative (continued)

L1318780-01: The continuous calibration blanks have concentrations above the LOD and reporting limit for arsenic. Since the sample was >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1318780-02: The initial calibration blank has concentrations above the LOD for arsenic. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/24/13

METALS

Project Name: DEVENS
Lab Number: L1318780
Project Number: AC001.005
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318780-01
Client ID: RC-SD-54-001-092313
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 79%

Date Collected: 09/23/13 12:00
Date Received: 09/23/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	31.7	Q	mg/kg	0.036	0.004	2	09/23/13 16:30	09/24/13 10:46	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1318780
Project Number: AC001.005
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318780-02
Client ID: EB-092313-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/23/13 12:15
Date Received: 09/23/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	ND	Q	ug/l	0.5000	0.0850	1	09/23/13 16:30	09/24/13 10:25	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1318780
Report Date: 09/24/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG638351-1										
Arsenic, Total	ND		mg/kg	0.050	0.006	2	09/23/13 16:30	09/24/13 10:31	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02 Batch: WG638352-1										
Arsenic, Total	ND		ug/l	0.5000	0.0850	1	09/23/13 16:30	09/24/13 10:17	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1318780

Report Date: 09/24/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG638351-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	105		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG638352-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	102		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG638351-4 WG638351-5 QC Sample: L1318731-01 Client ID: MS Sample												
Arsenic, Total	274.	101	396	120		416	**141**	Q	80-120	5		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG638352-4 QC Sample: L1318731-02 Client ID: MS Sample												
Arsenic, Total	ND	500	496.1	99		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG638351-3 QC Sample: L1318731-01 Client ID: DUP Sample						
Arsenic, Total	274.	331	mg/kg	19		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG638352-3 QC Sample: L1318731-02 Client ID: DUP Sample						
Arsenic, Total	ND	ND	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

SAMPLE RESULTS

Lab ID: L1318780-01
Client ID: RC-SD-54-001-092313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/23/13 12:00
Date Received: 09/23/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	79.1		%	0.100	0.100	1	-	09/24/13 09:47	30,2540G	DJ

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG638540-1 QC Sample: L1318780-01 Client ID: RC-SD-54-001-092313						
Solids, Total	79.1	79.4	%	0		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318780
Report Date: 09/24/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1318780-01A	Amber 120ml unpreserved	A	N/A	1.4	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318780-02A	Plastic 250ml HNO3 preserved	A	<2	1.4	Y	Absent	A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1318780
Project Number:	AC001.005	**Report Date:**	09/24/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318780
Project Number:	AC001.005	**Report Date:**	09/24/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318780
Project Number:	AC001.005	**Report Date:**	09/24/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

MANSFIELD CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1318780

Client Information

Client: Sovereign Consulting Inc.
Address: 4 OPEN SQUARE WAY
HOLYOKE MA
Phone: 413-540-0650
Fax:
Email: RLEARY@SOVCON.COM

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: DEVENS
Project Location:
Project #: AC001.005
Project Manager: RACHEL LEARY
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 HR TAT

Due Date: Time:

Report Information — Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Other Project Specific Requirements/Comments/Detection Limits:

☐ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID	Sample ID	Collection		Sample	Sampler's												TOTAL # BOTTLES
L1318780-1	RC-SD-54-001-092313	9/23/13	1200	SD	EF/SD	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	$EF	1
-2	EB-092313-01	9/23/13	1215	AQ	EF/SD	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	$EF	1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
Container Type						P	A	-	-	-	-	-	-	-	-	-	-		
Preservative						C	A	-	-	-	-	-	-	-	-	-	-		

Relinquished By:	Date/Time	Received By:	Date/Time
Eric Fo	9/23/13		9/23/13 1540
	9/23/13 1730		9/23/13 1730

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 101-09(I-NJ) (rev. 5-JAN-12)

ANALYTICAL REPORT

Lab Number:	L1318875
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/26/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1318875-01	RC-SD-60-001-092413	PLOW SHOP POND	09/24/13 15:00
L1318875-02	RC-SD-58-001-092413	PLOW SHOP POND	09/24/13 15:05
L1318875-03	RC-SD-57-001-092413	PLOW SHOP POND	09/24/13 15:10
L1318875-04	RC-SD-56-001-092413	PLOW SHOP POND	09/24/13 15:15
L1318875-05	RC-SD-59-001-092413	PLOW SHOP POND	09/24/13 15:20
L1318875-06	EB-092413-01	PLOW SHOP POND	09/24/13 15:45

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1318875
Project Number:	AC001.005	**Report Date:**	09/26/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1318875-01 through -05: The initial calibration blank and continuous calibration blanks have concentrations above the LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further

Project Name: DEVENS **Lab Number:** L1318875
Project Number: AC001.005 **Report Date:** 09/26/13

Case Narrative (continued)

actions were taken. The results of the original analysis are reported.

L1318875-06: The initial calibration blank and continuous calibration blanks have concentrations above the LOD for arsenic. Since the sample was non detect for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/26/13

METALS

Project Name: DEVENS
Lab Number: L1318875
Project Number: AC001.005
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-01
Client ID: RC-SD-60-001-092413
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 97%

Date Collected: 09/24/13 15:00
Date Received: 09/24/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	12.5	Q	mg/kg	0.033	0.004	2	09/25/13 15:00	09/26/13 11:29	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1318875
Project Number: AC001.005
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-02
Client ID: RC-SD-58-001-092413
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 75%

Date Collected: 09/24/13 15:05
Date Received: 09/24/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	32.9	Q	mg/kg	0.038	0.005	2	09/25/13 15:00	09/26/13 11:35	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1318875
Project Number: AC001.005
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-03
Client ID: RC-SD-57-001-092413
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 59%

Date Collected: 09/24/13 15:10
Date Received: 09/24/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	22.4	Q	mg/kg	0.048	0.006	2	09/25/13 15:00	09/26/13 11:36	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1318875
Project Number: AC001.005
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-04
Client ID: RC-SD-56-001-092413
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 77%

Date Collected: 09/24/13 15:15
Date Received: 09/24/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	5.56	Q	mg/kg	0.037	0.005	2	09/25/13 15:00	09/26/13 11:37	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1318875
Project Number: AC001.005
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-05
Client ID: RC-SD-59-001-092413
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 94%

Date Collected: 09/24/13 15:20
Date Received: 09/24/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	7.39	Q	mg/kg	0.033	0.004	2	09/25/13 15:00	09/26/13 11:38	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1318875
Project Number: AC001.005
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-06
Client ID: EB-092413-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/24/13 15:45
Date Received: 09/24/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	ND	Q	ug/l	0.5000	0.0850	1	09/25/13 15:00	09/26/13 10:40	EPA 3020A	1,6020A	LR

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1318875
Report Date: 09/26/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG638976-1										
Arsenic, Total	ND		mg/kg	0.050	0.006	2	09/25/13 15:00	09/26/13 11:28	1,6020A	LR

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 06 Batch: WG638977-1										
Arsenic, Total	ND		ug/l	0.5000	0.0850	1	09/25/13 15:00	09/26/13 10:34	1,6020A	LR

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1318875

Report Date: 09/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG638976-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	104		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 06 Batch: WG638977-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	100		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG638976-4 WG638976-5 QC Sample: L1318875-01 Client ID: RC-SD-60-001-092413												
Arsenic, Total	12.5	65.5	80.0	103		75.2	96		80-120	6		20
Total Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG638977-4 QC Sample: L1318875-06 Client ID: EB-092413-01												
Arsenic, Total	ND	500	483.4	97		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG638976-3 QC Sample: L1318875-01 Client ID: RC-SD-60-001-092413						
Arsenic, Total	12.5	11.0	mg/kg	13		20
Total Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG638977-3 QC Sample: L1318875-06 Client ID: EB-092413-01						
Arsenic, Total	ND	ND	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-01
Client ID: RC-SD-60-001-092413
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/24/13 15:00
Date Received: 09/24/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	97.2		%	0.100	0.100	1	-	09/25/13 08:48	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-02
Client ID: RC-SD-58-001-092413
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/24/13 15:05
Date Received: 09/24/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	75.0		%	0.100	0.100	1	-	09/25/13 08:48	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-03
Client ID: RC-SD-57-001-092413
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/24/13 15:10
Date Received: 09/24/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	58.8		%	0.100	0.100	1	-	09/25/13 08:48	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-04
Client ID: RC-SD-56-001-092413
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/24/13 15:15
Date Received: 09/24/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	76.9		%	0.100	0.100	1	-	09/25/13 08:48	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

SAMPLE RESULTS

Lab ID: L1318875-05
Client ID: RC-SD-59-001-092413
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/24/13 15:20
Date Received: 09/24/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	93.5		%	0.100	0.100	1	-	09/25/13 08:48	30,2540G	DJ

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG638859-1 QC Sample: L1318875-01 Client ID: RC-SD-60-001-092413						
Solids, Total	97.2	97.6	%	0		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318875
Report Date: 09/26/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1318875-01A	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318875-02A	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318875-03A	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318875-04A	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318875-05A	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1318875-06A	Plastic 250ml HNO3 preserved	A	<2	2.6	Y	Absent	A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1318875
Project Number:	AC001.005	**Report Date:**	09/26/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318875
Project Number:	AC001.005	**Report Date:**	09/26/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318875
Project Number:	AC001.005	**Report Date:**	09/26/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Serial_No:09261316:24

L1318875 9/24/13

1 of 2

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193

Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/24/13

ALPHA Job #: ~~L1318868~~ (BB)

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 HR TAT

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Data Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

SAMPLE HANDLING

Filtration

☐ Done

☐ Not Needed

☐ Lab to do

Preservation

☐ Lab to do

(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total As by 6020												Sample Specific Comments	TOTAL # BOTTLES
L1318875-1	RC-SD-60-001-092413	9/24/13	1500	SD	EF BS	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
-2	RC-SD-58-001-092413	↓	1505	SD	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
-3	RC-SD-57-001-092413	↓	1510	SD	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
-4	RC-SD-56-001-092413	↓	1515	SD	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
-5	RC-SD-59-001-092413	↓	1520	SD	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
-6	EB-092413-01	↓	1545	AQ	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	P	A	-	-	-	-	-	-	-	-	-	-
Preservative	C	A	-	-	-	-	-	-	-	-	-	-

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	9/24/13 1548	[signature]	9/24/13 1548
[signature]	9/24/13 1700	[signature]	9/24/13 1700
[signature]	9/25/13 04:00	Mansfield Lab	9/25/13 04:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1319010
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/27/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1319010-01	RC-SD-44-001-092513	PLOW SHOP POND	09/25/13 10:00
L1319010-02	RC-SD-35-001-092513	PLOW SHOP POND	09/25/13 10:30
L1319010-03	RC-SD-34-001-092513	PLOW SHOP POND	09/25/13 11:00
L1319010-04	FD-092513-01	PLOW SHOP POND	09/25/13 11:00
L1319010-05	EB-092513-01	PLOW SHOP POND	09/25/13 13:35
L1319010-06	RC-SD-25-001-092513	PLOW SHOP POND	09/25/13 14:55

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1319010
Project Number: AC001.005 **Report Date:** 09/27/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319010-01 through -04 and -06: The continuing calibration blanks have concentrations above the reporting limit for arsenic. Since the samples are >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1319010-05: The initial calibration blank and continuing calibration blanks have concentrations above the

Project Name:	DEVENS	**Lab Number:**	L1319010
Project Number:	AC001.005	**Report Date:**	09/27/13

Case Narrative (continued)

LOD for arsenic. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/27/13

METALS

Project Name: DEVENS
Lab Number: L1319010
Project Number: AC001.005
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-01
Client ID: RC-SD-44-001-092513
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 17%

Date Collected: 09/25/13 10:00
Date Received: 09/25/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	197	Q	mg/kg	0.426	0.053	5	09/26/13 15:30	09/27/13 14:44	EPA 3050B	1,6020A	PD

Project Name:	DEVENS	**Lab Number:**	L1319010
Project Number:	AC001.005	**Report Date:**	09/27/13

SAMPLE RESULTS

Lab ID:	L1319010-02	Date Collected:	09/25/13 10:30
Client ID:	RC-SD-35-001-092513	Date Received:	09/25/13
Sample Location:	PLOW SHOP POND	Field Prep:	Not Specified
Matrix:	Sediment		
Percent Solids:	16%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	251	Q	mg/kg	0.471	0.058	5	09/26/13 15:30	09/27/13 14:45	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319010
Project Number: AC001.005
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-03
Client ID: RC-SD-34-001-092513
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 12%

Date Collected: 09/25/13 11:00
Date Received: 09/25/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	506	Q	mg/kg	0.600	0.074	5	09/26/13 15:30	09/27/13 14:46	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319010
Project Number: AC001.005
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-04
Client ID: FD-092513-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 12%

Date Collected: 09/25/13 11:00
Date Received: 09/25/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	492	Q	mg/kg	0.570	0.070	5	09/26/13 15:30	09/27/13 14:50	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319010
Project Number: AC001.005
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-05
Client ID: EB-092513-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/25/13 13:35
Date Received: 09/25/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.1279	JQ	ug/l	0.5000	0.0850	1	09/26/13 15:30	09/27/13 14:32	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319010
Project Number: AC001.005
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-06
Client ID: RC-SD-25-001-092513
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 38%

Date Collected: 09/25/13 14:55
Date Received: 09/25/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	130	Q	mg/kg	0.178	0.022	5	09/26/13 15:30	09/27/13 14:53	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319010
Report Date: 09/27/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04,06 Batch: WG639326-1										
Arsenic, Total	ND		mg/kg	0.050	0.006	2	09/26/13 15:30	09/27/13 14:43	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 05 Batch: WG639329-1										
Arsenic, Total	0.0896	J	ug/l	0.5000	0.0850	1	09/26/13 15:30	09/27/13 14:27	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1319010

Report Date: 09/27/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04,06 Batch: WG639326-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	103		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 05 Batch: WG639329-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	101		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04,06 QC Batch ID: WG639326-4 WG639326-5 QC Sample: L1319010-03 Client ID: RC-SD-34-001-092513												
Arsenic, Total	506.	480	1020	107		987	100		80-120	3		20
Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG639329-4 QC Sample: L1319010-05 Client ID: EB-092513-01												
Arsenic, Total	0.1279J	500	519.1	104		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04,06 QC Batch ID: WG639326-3 QC Sample: L1319010-03 Client ID: RC-SD-34-001-092513						
Arsenic, Total	506.	496	mg/kg	2		20
Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG639329-3 QC Sample: L1319010-05 Client ID: EB-092513-01						
Arsenic, Total	0.1279J	ND	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-01
Client ID: RC-SD-44-001-092513
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/25/13 10:00
Date Received: 09/25/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	16.5		%	0.100	0.100	1	-	09/26/13 07:55	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-02
Client ID: RC-SD-35-001-092513
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/25/13 10:30
Date Received: 09/25/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	15.8		%	0.100	0.100	1	-	09/26/13 07:55	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-03
Client ID: RC-SD-34-001-092513
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/25/13 11:00
Date Received: 09/25/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	11.9		%	0.100	0.100	1	-	09/26/13 07:55	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-04
Client ID: FD-092513-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/25/13 11:00
Date Received: 09/25/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	11.8		%	0.100	0.100	1	-	09/26/13 07:55	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

SAMPLE RESULTS

Lab ID: L1319010-06
Client ID: RC-SD-25-001-092513
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/25/13 14:55
Date Received: 09/25/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	37.8		%	0.100	0.100	1	-	09/26/13 07:55	30,2540G	DJ

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-04,06 QC Batch ID: WG639111-1 QC Sample: L1319010-03 Client ID: RC-SD-34-001-092513						
Solids, Total	11.9	11.8	%	1		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319010
Report Date: 09/27/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1319010-01A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319010-02A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319010-03A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319010-03B	Amber 100ml unpreserved	A	N/A	2.0	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319010-03C	Amber 100ml unpreserved	A	N/A	2.0	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319010-04A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319010-05A	Plastic 250ml HNO3 preserved	A	<2	2.0	Y	Absent	A2-DOD-AS-6020T(180)
L1319010-06A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1319010
Project Number:	AC001.005	**Report Date:**	09/27/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319010
Project Number:	AC001.005	**Report Date:**	09/27/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319010
Project Number:	AC001.005	**Report Date:**	09/27/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

(1)

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL World Class Chemistry

Westborough, MA
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA
TEL: 508-822-9300
FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1319010

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Report Information

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 HR TAT

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total AS by 6020												Sample Specific Comments	TOTAL # BOTTLES
L1319010-1	RC-SD-44-001-092513	9/25/13	1000	SD	EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
2	RC-SD-35-001-092513	↓	1030	SD	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
3	RC-SD-34-001-092513	↓	1100	SD	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	MS/MSD	3
4	FD-092513-01	↓	1100	SD	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
5	EB-092513-01	↓	1335	AQ	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
6	RC-SD-25-001-092513	↓	1455	SD	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	P	A	-	-	-	-	-	-	-	-	-	-
Preservative	C	A	-	-	-	-	-	-	-	-	-	-

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-01(I)
(rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Eric Fox	9/25/13 1600	Steve Walet	9/25/13 1600
Steve Walet	9/25/13 1730	[illegible]	9/25/13 17:30
[illegible]	9/26/13 05:00	Mansfield Lab	9/26/13 05:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1319573
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	10/03/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1319573-01	RC-SD-36-001-100213	PLOW SHOP POND	10/02/13 11:00
L1319573-02	RC-SD-37-001-100213	PLOW SHOP POND	10/02/13 11:05
L1319573-03	RC-SD-38-001-100213	PLOW SHOP POND	10/02/13 11:10
L1319573-04	RC-SD-39-001-100213	PLOW SHOP POND	10/02/13 11:15
L1319573-05	RC-SD-45-001-100213	PLOW SHOP POND	10/02/13 11:20
L1319573-06	RC-SD-46-001-100213	PLOW SHOP POND	10/02/13 11:25
L1319573-07	RC-SD-47-001-100213	PLOW SHOP POND	10/02/13 11:35
L1319573-08	FD-100213-01	PLOW SHOP POND	10/02/13 11:30
L1319573-09	EB-100213-01	PLOW SHOP POND	10/02/13 11:40

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1319573
Project Number: AC001.005 **Report Date:** 10/03/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319573-01 through -08: The initial calibration blank and continuing calibration blank have concentrations above the LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1319573-09: The initial calibration blank and continuing calibration blank have concentrations above the LOD

Project Name:	DEVENS	**Lab Number:**	L1319573
Project Number:	AC001.005	**Report Date:**	10/03/13

Case Narrative (continued)

for arsenic. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 10/03/13

METALS

Project Name: DEVENS
Lab Number: L1319573
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-01
Client ID: RC-SD-36-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 9%

Date Collected: 10/02/13 11:00
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	195	Q	mg/kg	0.741	0.092	5	10/02/13 14:00	10/03/13 11:56	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319573
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-02
Client ID: RC-SD-37-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 7%

Date Collected: 10/02/13 11:05
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	291	Q	mg/kg	1.01	0.124	5	10/02/13 14:00	10/03/13 11:57	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319573
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-03
Client ID: RC-SD-38-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/02/13 11:10
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	93.9	Q	mg/kg	0.674	0.083	5	10/02/13 14:00	10/03/13 11:58	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319573
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-04
Client ID: RC-SD-39-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/02/13 11:15
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	110	Q	mg/kg	0.646	0.080	5	10/02/13 14:00	10/03/13 11:59	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319573
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-05
Client ID: RC-SD-45-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 31%

Date Collected: 10/02/13 11:20
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	23.7	Q	mg/kg	0.220	0.027	5	10/02/13 14:00	10/03/13 12:01	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319573
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-06
Client ID: RC-SD-46-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/02/13 11:25
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	156	Q	mg/kg	0.683	0.085	5	10/02/13 14:00	10/03/13 12:02	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319573
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-07
Client ID: RC-SD-47-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 9%

Date Collected: 10/02/13 11:35
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	127	Q	mg/kg	0.761	0.094	5	10/02/13 14:00	10/03/13 12:05	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319573
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-08
Client ID: FD-100213-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/02/13 11:30
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	163	Q	mg/kg	0.690	0.085	5	10/02/13 14:00	10/03/13 12:05	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319573
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-09
Client ID: EB-100213-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 10/02/13 11:40
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.2095	JQ	ug/l	0.5000	0.0850	1	10/02/13 15:24	10/03/13 11:02	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319573
Report Date: 10/03/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-08 Batch: WG640718-1										
Arsenic, Total	0.012	J	mg/kg	0.050	0.006	2	10/02/13 14:00	10/03/13 11:47	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 09 Batch: WG640759-1										
Arsenic, Total	0.1544	J	ug/l	0.5000	0.0850	1	10/02/13 15:24	10/03/13 10:57	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1319573

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG640718-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	108		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 09 Batch: WG640759-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	100		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG640718-4 WG640718-5 QC Sample: L1319527-01 Client ID: MS Sample												
Arsenic, Total	187.	110	309	111		306	108		80-120	1		20
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG640718-6 WG640718-7 QC Sample: L1319573-06 Client ID: RC-SD-46-001-100213												
Arsenic, Total	156.	547	696	99		744	108		80-120	7		20
Total Metals - Mansfield Lab Associated sample(s): 09 QC Batch ID: WG640759-4 QC Sample: L1319573-09 Client ID: EB-100213-01												
Arsenic, Total	0.2095J	500	513.7	103		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG640718-3 QC Sample: L1319527-01 Client ID: DUP Sample						
Arsenic, Total	187.	195	mg/kg	4		20
Total Metals - Mansfield Lab Associated sample(s): 09 QC Batch ID: WG640759-3 QC Sample: L1319573-09 Client ID: EB-100213-01						
Arsenic, Total	0.2095J	0.1224J	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-01
Client ID: RC-SD-36-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:00
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.42		%	0.100	0.100	1	-	10/02/13 15:26	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-02
Client ID: RC-SD-37-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:05
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	6.94		%	0.100	0.100	1	-	10/02/13 15:26	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-03
Client ID: RC-SD-38-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:10
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.87		%	0.100	0.100	1	-	10/02/13 15:26	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-04
Client ID: RC-SD-39-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:15
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.3		%	0.100	0.100	1	-	10/02/13 15:26	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-05
Client ID: RC-SD-45-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:20
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	30.9		%	0.100	0.100	1	-	10/02/13 15:26	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-06
Client ID: RC-SD-46-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:25
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.73		%	0.100	0.100	1	-	10/02/13 15:26	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-07
Client ID: RC-SD-47-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:35
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	8.83		%	0.100	0.100	1	-	10/02/13 15:26	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319573-08
Client ID: FD-100213-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 11:30
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.95		%	0.100	0.100	1	-	10/02/13 15:26	30,2540G	DJ

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG640763-1 QC Sample: L1319573-06 Client ID: RC-SD-46-001-100213						
Solids, Total	9.73	10.2	%	5		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319573
Report Date: 10/03/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1319573-01A	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319573-02A	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319573-03A	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319573-04A	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319573-05A	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319573-06A	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319573-06B	Amber 100ml unpreserved	A	N/A	2.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319573-06C	Amber 100ml unpreserved	A	N/A	2.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319573-07A	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319573-08A	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319573-09A	Plastic 250ml HNO3 preserved	A	<2	2.6	Y	Absent	A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1319573
Project Number:	AC001.005	**Report Date:**	10/03/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319573
Project Number:	AC001.005	**Report Date:**	10/03/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319573
Project Number:	AC001.005	**Report Date:**	10/03/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 2

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1319573

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Report Information — Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)
Due Date: Time: 24 HR

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Arsenic by 6020	Sample Specific Comments
L1319573-1	RC-SD-36-001-100213	10/2/13	1100	SED	EEF	☒	
2	RC-SD-37-001-100213		1105			☒	
3	RC-SD-38-001-100213		1110			☒	
4	RC-SD-39-001-100213		1115			☒	
5	RC-SD-45-001-100213		1120			☒	
6	RC-SD-46-001-100213		1125			☒	MS/MSD
7	RC-SD-47-001-100213		1135			☒	
-6	MS-100213-01		1125			☒	
-6	MSD-100213-01		1125			☒	
8	FD-100213-01		1130			☒	

Container Type
Preservative

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Emily Daly	10.2.13	Pat Clark	10/2/13 1130
Pat Clark	10-2-13 1225	MCM	10/2/13 1225
MCM	10/2/13 1317		10/2/13 1317

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

CHAIN OF CUSTODY

PAGE 2 OF 2

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1319573

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Report Information Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)
Due Date: Time: 24 HR

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials
L1319573-9	EB-100213-01	10/2/13	1140	AQ	EEF

Container Type: P A
Preservative: C A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
	10/2/13		10/2/13 1130
	10/2/13 1225		10/2/13 1245
	10/2/13 1317		10/2/13 1317

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1319660
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	10/04/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1319660-01	RC-SD-23-001-100213	PLOW SHOP POND	10/02/13 15:35
L1319660-02	RC-SD-24-001-100213	PLOW SHOP POND	10/02/13 15:40
L1319660-03	RC-SD-29-001-100213	PLOW SHOP POND	10/02/13 15:42
L1319660-04	RC-SD-30-001-100213	PLOW SHOP POND	10/02/13 15:44
L1319660-05	RC-SD-31-001-100213	PLOW SHOP POND	10/02/13 15:46
L1319660-06	RC-22-001-100213	PLOW SHOP POND	10/02/13 15:30

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1319660
Project Number:	AC001.005	**Report Date:**	10/04/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319660-01 through -06: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 10/04/13

METALS

Project Name: DEVENS
Lab Number: L1319660
Project Number: AC001.005
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-01
Client ID: RC-SD-23-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/02/13 15:35
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	120	Q	mg/kg	0.284	0.035	2	10/03/13 15:30	10/04/13 10:22	EPA 3050B	1,6020A	PD

Project Name:	DEVENS	**Lab Number:**	L1319660
Project Number:	AC001.005	**Report Date:**	10/04/13

SAMPLE RESULTS

Lab ID:	L1319660-02	Date Collected:	10/02/13 15:40
Client ID:	RC-SD-24-001-100213	Date Received:	10/02/13
Sample Location:	PLOW SHOP POND	Field Prep:	Not Specified
Matrix:	Sediment		
Percent Solids:	11%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	73.8	Q	mg/kg	0.264	0.033	2	10/03/13 15:30	10/04/13 10:26	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319660
Project Number: AC001.005
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-03
Client ID: RC-SD-29-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 11%

Date Collected: 10/02/13 15:42
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	157	Q	mg/kg	0.264	0.033	2	10/03/13 15:30	10/04/13 10:27	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319660
Project Number: AC001.005
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-04
Client ID: RC-SD-30-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/02/13 15:44
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	133	Q	mg/kg	0.285	0.035	2	10/03/13 15:30	10/04/13 10:28	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319660
Project Number: AC001.005
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-05
Client ID: RC-SD-31-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 11%

Date Collected: 10/02/13 15:46
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	95.2	Q	mg/kg	0.254	0.031	2	10/03/13 15:30	10/04/13 10:30	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319660
Project Number: AC001.005
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-06
Client ID: RC-22-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/02/13 15:30
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	157	Q	mg/kg	0.288	0.036	2	10/03/13 15:30	10/04/13 10:31	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319660
Report Date: 10/04/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-06 Batch: WG641081-1										
Arsenic, Total	ND		mg/kg	0.050	0.006	2	10/03/13 15:30	10/04/13 10:20	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1319660

Report Date: 10/04/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG641081-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	104		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641081-4 WG641081-5 QC Sample: L1319660-01 Client ID: RC-SD-23-001-100213												
Arsenic, Total	120.	565	712	105		717	105		80-120	1		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641081-3 QC Sample: L1319660-01 Client ID: RC-SD-23-001-100213						
Arsenic, Total	120.	116	mg/kg	3		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-01
Client ID: RC-SD-23-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 15:35
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.83		%	0.100	0.100	1	-	10/03/13 10:42	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-02
Client ID: RC-SD-24-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 15:40
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.9		%	0.100	0.100	1	-	10/03/13 10:42	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-03
Client ID: RC-SD-29-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 15:42
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.9		%	0.100	0.100	1	-	10/03/13 10:42	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-04
Client ID: RC-SD-30-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 15:44
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.73		%	0.100	0.100	1	-	10/03/13 10:42	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-05
Client ID: RC-SD-31-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 15:46
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	11.2		%	0.100	0.100	1	-	10/03/13 10:42	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

SAMPLE RESULTS

Lab ID: L1319660-06
Client ID: RC-22-001-100213
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/02/13 15:30
Date Received: 10/02/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.66		%	0.100	0.100	1	-	10/03/13 10:42	30,2540G	JW

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG640961-1 QC Sample: L1319660-01 Client ID: RC-SD-23-001-100213						
Solids, Total	9.83	9.82	%	0		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319660
Report Date: 10/04/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1319660-01A	Amber 120ml unpreserved	A	N/A	3.3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319660-02A	Amber 120ml unpreserved	A	N/A	3.3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319660-03A	Amber 120ml unpreserved	A	N/A	3.3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319660-04A	Amber 120ml unpreserved	A	N/A	3.3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319660-05A	Amber 120ml unpreserved	A	N/A	3.3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319660-06A	Amber 120ml unpreserved	A	N/A	3.3	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1319660
Project Number:	AC001.005	**Report Date:**	10/04/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319660
Project Number:	AC001.005	**Report Date:**	10/04/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319660
Project Number:	AC001.005	**Report Date:**	10/04/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1319660

Report Information — Data Deliverables | **Billing Information**

- ☐ FAX
- ☒ EMAIL
- ☒ ADEx
- ☐ Add'l Deliverables
- ☒ Same as Client info
- PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 HR TAT

Due Date: Time:

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes	☒ No	Are MCP Analytical Methods Required?
☐ Yes	☒ No	Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials													
19660 -01	RC-SD-23-001-100213	10.2.13	1535	SoilSD	EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	1
-02	RC-SD-24-001-100213		1540			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	1
-03	RC-SD-29-001-100213		1542			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	1
-04	RC-SD-30-001-100213		1544			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	1
-05	RC-SD-31-001-100213		1546			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	1
-06	RC-SD-001-100213		1530			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Container Type	P	A	-	-	-	-	-	-	-	-	-	-
Preservative	C	A	-	-	-	-	-	-	-	-	-	-

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Sovereign	10.2.13 1600	[illegible]	10/2/13 16
[illegible]	10-2-13 1615	[illegible]	10/2/13 16:15
[illegible]	10/3/13 04:00	Mansfield Lab	10/3/13 0400

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 01-01(I) (rev. 5-JAN-12)

ANALYTICAL REPORT

Lab Number:	L1319709
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	10/07/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1319709-01	RC-SD-19-001-100313	PLOW SHOP POND	10/03/13 11:00
L1319709-02	RC-SD-20-001-100313	PLOW SHOP POND	10/03/13 11:05
L1319709-03	RC-SD-21-001-100313	PLOW SHOP POND	10/03/13 11:10
L1319709-04	RC-SD-26-001-100313	PLOW SHOP POND	10/03/13 11:15
L1319709-05	RC-SD-27-001-100313	PLOW SHOP POND	10/03/13 11:20
L1319709-06	RC-SD-28-001-100313	PLOW SHOP POND	10/03/13 11:25
L1319709-07	FD-100313-001	PLOW SHOP POND	10/03/13 11:25
L1319709-08	EB-100313-01	PLOW SHOP POND	10/03/13 11:35

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319709
Report Date: 10/07/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.
M2 Peak not found by automatic integration algorithm.
M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4 Poor automated baseline construction.
M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7 A qualifier ion was manually integrated (only for GC/MS data).
M8 Integration of individual analyte eluting on top of an unresolved complex.
M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319709-01 through -07: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319709
Report Date: 10/07/13

Case Narrative (continued)

L1319709-08: The initial calibration blank and continuing calibration blank have concentrations above the LOD for arsenic. Since the associated sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 10/07/13

METALS

Project Name: DEVENS
Lab Number: L1319709
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-01
Client ID: RC-SD-19-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/03/13 11:00
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	117	Q	mg/kg	0.274	0.034	2	10/03/13 15:30	10/04/13 10:32	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319709
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-02
Client ID: RC-SD-20-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/03/13 11:05
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	185	Q	mg/kg	0.267	0.033	2	10/03/13 15:30	10/04/13 10:33	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319709
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-03
Client ID: RC-SD-21-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 8%

Date Collected: 10/03/13 11:10
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	185	Q	mg/kg	0.320	0.040	2	10/03/13 15:30	10/04/13 10:33	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319709
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-04
Client ID: RC-SD-26-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 11%

Date Collected: 10/03/13 11:15
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	164	Q	mg/kg	0.244	0.030	2	10/03/13 15:30	10/04/13 10:34	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319709
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-05
Client ID: RC-SD-27-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 7%

Date Collected: 10/03/13 11:20
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	657	Q	mg/kg	0.388	0.048	2	10/03/13 15:30	10/04/13 10:35	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319709
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-06
Client ID: RC-SD-28-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 12%

Date Collected: 10/03/13 11:25
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	104	Q	mg/kg	0.242	0.030	2	10/03/13 15:30	10/04/13 10:36	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319709
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-07
Client ID: FD-100313-001
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 11%

Date Collected: 10/03/13 11:25
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	166	Q	mg/kg	0.261	0.032	2	10/03/13 15:30	10/04/13 10:40	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319709
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-08
Client ID: EB-100313-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 10/03/13 11:35
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.1211	JQ	ug/l	0.5000	0.0850	1	10/03/13 15:30	10/04/13 10:09	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319709
Report Date: 10/07/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-07 Batch: WG641081-1										
Arsenic, Total	ND		mg/kg	0.050	0.006	2	10/03/13 15:30	10/04/13 10:20	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 08 Batch: WG641108-1										
Arsenic, Total	0.1374	J	ug/l	0.5000	0.0850	1	10/03/13 15:30	10/04/13 10:04	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1319709

Report Date: 10/07/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-07 Batch: WG641081-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	104		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 08 Batch: WG641108-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	100		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG641081-4 WG641081-5 QC Sample: L1319660-01 Client ID: MS Sample												
Arsenic, Total	120.	565	712	105		717	105		80-120	1		20
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG641081-6 WG641081-7 QC Sample: L1319709-06 Client ID: RC-SD-28-001-100313												
Arsenic, Total	104.	480	583	100		588	101		80-120	1		20
Total Metals - Mansfield Lab Associated sample(s): 08 QC Batch ID: WG641108-4 QC Sample: L1319709-08 Client ID: EB-100313-01												
Arsenic, Total	0.1211J	500	499.2	100		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG641081-3 QC Sample: L1319660-01 Client ID: DUP Sample						
Arsenic, Total	120.	116	mg/kg	3		20
Total Metals - Mansfield Lab Associated sample(s): 08 QC Batch ID: WG641108-3 QC Sample: L1319709-08 Client ID: EB-100313-01						
Arsenic, Total	0.1211J	0.0965J	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-01
Client ID: RC-SD-19-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/03/13 11:00
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.1		%	0.100	0.100	1	-	10/04/13 12:14	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-02
Client ID: RC-SD-20-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/03/13 11:05
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.4		%	0.100	0.100	1	-	10/04/13 12:14	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-03
Client ID: RC-SD-21-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/03/13 11:10
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	8.30		%	0.100	0.100	1	-	10/04/13 12:14	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-04
Client ID: RC-SD-26-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/03/13 11:15
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	11.0		%	0.100	0.100	1	-	10/04/13 12:14	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-05
Client ID: RC-SD-27-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/03/13 11:20
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	7.11		%	0.100	0.100	1	-	10/04/13 12:14	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-06
Client ID: RC-SD-28-001-100313
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/03/13 11:25
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	11.5		%	0.100	0.100	1	-	10/04/13 12:14	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319709-07
Client ID: FD-100313-001
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/03/13 11:25
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.6		%	0.100	0.100	1	-	10/04/13 12:14	30,2540G	JW

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG641311-1 QC Sample: L1319709-06 Client ID: RC-SD-28-001-100313						
Solids, Total	11.5	11.5	%	0		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319709
Report Date: 10/07/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1319709-01A	Amber 120ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319709-02A	Amber 120ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319709-03A	Amber 120ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319709-04A	Amber 120ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319709-05A	Amber 120ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319709-06A	Amber 120ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319709-06B	Amber 100ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319709-06C	Amber 100ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319709-07A	Amber 120ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319709-08A	Plastic 250ml HNO3 preserved	A	<2	4.2	Y	Absent	A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1319709
Project Number:	AC001.005	**Report Date:**	10/07/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319709
Project Number:	AC001.005	**Report Date:**	10/07/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319709
Project Number:	AC001.005	**Report Date:**	10/07/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 2/2

ALPHA ANALYTICAL — "World Class Chemistry"

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1319709

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)
24HR TAT
Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information — Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials		Sample Specific Comments	TOTAL # BOTTLES
19709 01	RC-SD-19-001-100313	10-3-13	1100	SD	EF	☒		1
02	RC-SD-20-001-100313		1105			☒		1
03	RC-SD-21-001-100313		1110			☒		1
04	RC-SD-26-001-100313		1115			☒		1
05	RC-SD-27-001-100313		1120			☒		
06	RC-SD-28-001-100313		1125			☒	MS/MSD	3
07	FD-100313-001		1125			☒		1
08	EB-100313-01		1135	AQ		☒		4
						☐		
						☐		

Container Type	P	A	-	-	-	-	-	-	-	-	-	-
Preservative	C	A	-	-	-	-	-	-	-	-	-	-

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Courtney Hoff Alch	10.3.13	Pat Corcoran	10/3/13 1600
	10-3-13 1350		10/3/13 13:50

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1319783
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	10/07/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1319783-01	RC-SD-13-001-100313	Not Specified	10/03/13 14:40
L1319783-02	RC-SD-18-001-100313	Not Specified	10/03/13 14:50
L1319783-03	RC-SD-10-001-100313	Not Specified	10/03/13 15:30
L1319783-04	RC-SD-14-001-100313	Not Specified	10/03/13 15:35
L1319783-05	RC-SD-15-001-100313	Not Specified	10/03/13 15:40
L1319783-06	RC-SD-16-001-100313	Not Specified	10/03/13 15:45

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1319783
Project Number:	AC001.005	**Report Date:**	10/07/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319783-01 through -06: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 10/07/13

METALS

Project Name: DEVENS
Lab Number: L1319783
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-01
Client ID: RC-SD-13-001-100313
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 26%

Date Collected: 10/03/13 14:40
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	221	Q	mg/kg	0.270	0.033	5	10/04/13 17:00	10/07/13 11:18	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319783
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-02
Client ID: RC-SD-18-001-100313
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 18%

Date Collected: 10/03/13 14:50
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	291	Q	mg/kg	0.371	0.046	5	10/04/13 17:00	10/07/13 11:22	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319783
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-03
Client ID: RC-SD-10-001-100313
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/03/13 15:30
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	449	Q	mg/kg	0.271	0.034	2	10/04/13 17:00	10/07/13 11:07	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319783
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-04
Client ID: RC-SD-14-001-100313
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/03/13 15:35
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	244	Q	mg/kg	0.272	0.034	2	10/04/13 17:00	10/07/13 11:08	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319783
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-05
Client ID: RC-SD-15-001-100313
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 11%

Date Collected: 10/03/13 15:40
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	101	Q	mg/kg	0.268	0.033	2	10/04/13 17:00	10/07/13 11:09	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319783
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-06
Client ID: RC-SD-16-001-100313
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/03/13 15:45
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	232	Q	mg/kg	0.274	0.034	2	10/04/13 17:00	10/07/13 11:10	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319783
Report Date: 10/07/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-06 Batch: WG641401-1										
Arsenic, Total	0.023	J	mg/kg	0.050	0.006	2	10/04/13 17:00	10/07/13 10:59	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1319783

Report Date: 10/07/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG641401-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	104		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 001-100313	QC Batch ID: WG641401-4					WG641401-5	QC Sample: L1319783-01		Client ID: RC-SD-13-			
Arsenic, Total	221.	214	434	99		427	96		80-120	2		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641401-3 QC Sample: L1319783-01 Client ID: RC-SD-13-001-100313						
Arsenic, Total	221.	224	mg/kg	1		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-01
Client ID: RC-SD-13-001-100313
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/03/13 14:40
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	26.2		%	0.100	0.100	1	-	10/04/13 12:59	30,2540G	CT

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-02
Client ID: RC-SD-18-001-100313
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/03/13 14:50
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	18.2		%	0.100	0.100	1	-	10/04/13 12:59	30,2540G	CT

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-03
Client ID: RC-SD-10-001-100313
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/03/13 15:30
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.3		%	0.100	0.100	1	-	10/04/13 12:59	30,2540G	CT

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-04
Client ID: RC-SD-14-001-100313
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/03/13 15:35
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.4		%	0.100	0.100	1	-	10/04/13 12:59	30,2540G	CT

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-05
Client ID: RC-SD-15-001-100313
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/03/13 15:40
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.9		%	0.100	0.100	1	-	10/04/13 12:59	30,2540G	CT

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319783-06
Client ID: RC-SD-16-001-100313
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/03/13 15:45
Date Received: 10/03/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.82		%	0.100	0.100	1	-	10/04/13 12:59	30,2540G	CT

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641324-1 QC Sample: L1319783-01 Client ID: RC-SD-13-001-100313						
Solids, Total	26.2	28.7	%	9		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319783
Report Date: 10/07/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1319783-01A	Amber 120ml unpreserved	A	N/A	4.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319783-02A	Amber 120ml unpreserved	A	N/A	4.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319783-03A	Amber 120ml unpreserved	A	N/A	4.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319783-04A	Amber 120ml unpreserved	A	N/A	4.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319783-05A	Amber 120ml unpreserved	A	N/A	4.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319783-06A	Amber 120ml unpreserved	A	N/A	4.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1319783
Project Number:	AC001.005	**Report Date:**	10/07/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319783
Project Number:	AC001.005	**Report Date:**	10/07/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319783
Project Number:	AC001.005	**Report Date:**	10/07/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

MANSFIELD CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193

Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1319783

Client Information

Client: Sovereign Consulting Inc.

Address: 4 OPEN SQUARE WAY

HOLYOKE MA

Phone: 413-540-0650

Fax:

Email: RLEARY@SOVCON.COM

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: DEVENS

Project Location:

Project #: AC001.005

Project Manager: RACHEL LEARY

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 HR TAT

Due Date: Time:

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

Other Project Specific Requirements/Comments/Detection Limits:

☐ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING

Filtration

☐ Done

☐ Not Needed

☐ Lab to do

Preservation

☐ Lab to do

(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID	Sample ID	Collection		Sample	Sampler's												TOTAL # BOTTLES
-1	RC-SD-13-001-100313	10.3.13	1440	SD	EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	1
-2	RC-SD-18-001-100313		1450			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	1
-3	RC-SD-10-001-100313		1530			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	1
-4	RC-SD-14-001-100313		1535			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	1
-5	RC-SD-15-001-100313		1540			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	1
-6	RC-SD-16-001-100313		1545			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
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						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
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Container Type	P	-	-	-	-	-	-	-	-	-	-	-
Preservative	C	-	-	-	-	-	-	-	-	-	-	-

Relinquished By:	Date/Time	Received By:	Date/Time
	10.03.13 1645		10/3/13 1645
	10-3-13 1745		10/3/13 1745
	10/4/13 0500	Mansfield Lab	10/4/13 05:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 101-09(I-NJ) (rev. 5-JAN-12)

ANALYTICAL REPORT

Lab Number:	L1319814
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	10/07/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1319814-01	RC-SD-06-001-100413	Not Specified	10/04/13 11:30
L1319814-02	RC-SD-07-001-100413	Not Specified	10/04/13 11:35
L1319814-03	RC-SD-08-001-100413	Not Specified	10/04/13 11:40
L1319814-04	RC-SD-11-001-100413	Not Specified	10/04/13 11:45
L1319814-05	RC-SD-12-001-100413	Not Specified	10/04/13 11:50
L1319814-06	RC-SD-17-001-100413	Not Specified	10/04/13 11:55
L1319814-07	EB-100413-001	Not Specified	10/04/13 12:00
L1319814-08	SA71-SD-23-001-100413	Not Specified	10/04/13 11:35
L1319814-09	SA71-SD-22-001-100413	Not Specified	10/04/13 11:30

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1319814
Project Number: AC001.005 **Report Date:** 10/07/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319814-01 through -06: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1319814-07: The initial calibration blank and continuing calibration blank have concentrations above the

Project Name:	DEVENS	**Lab Number:**	L1319814
Project Number:	AC001.005	**Report Date:**	10/07/13

Case Narrative (continued)

reporting limit for arsenic. Since the samples were below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

The WG641402-5 MSD recovery, performed on L1319814-08, is below the acceptance criteria for antimony (34%); however, the associated LCS recovery was within criteria. No further action was taken. The parent sample (L1319814-08) should be qualified as "J" for this analyte.

The WG641402-4/-5 MS/MSD RPD, performed on L1319814-08, is above the acceptance criteria for antimony (21%).

The WG641402-3 Laboratory Duplicate RPD, performed on L1319814-08, is outside the acceptance criteria for antimony (101%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 10/07/13

METALS

Project Name: DEVENS
Lab Number: L1319814
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-01
Client ID: RC-SD-06-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/04/13 11:30
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	399	Q	mg/kg	0.278	0.034	2	10/04/13 17:00	10/07/13 11:11	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319814
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-02
Client ID: RC-SD-07-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/04/13 11:35
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	128	Q	mg/kg	0.258	0.032	2	10/04/13 17:00	10/07/13 11:11	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319814
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-03
Client ID: RC-SD-08-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/04/13 11:40
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	98.0	Q	mg/kg	0.268	0.033	2	10/04/13 17:00	10/07/13 11:14	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319814
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-04
Client ID: RC-SD-11-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 11%

Date Collected: 10/04/13 11:45
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	65.2	Q	mg/kg	0.269	0.033	2	10/04/13 17:00	10/07/13 11:15	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319814
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-05
Client ID: RC-SD-12-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 11%

Date Collected: 10/04/13 11:50
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	78.3	Q	mg/kg	0.259	0.032	2	10/04/13 17:00	10/07/13 11:16	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319814
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-06
Client ID: RC-SD-17-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 9%

Date Collected: 10/04/13 11:55
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	113	Q	mg/kg	0.284	0.035	2	10/04/13 17:00	10/07/13 11:16	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-07
Client ID: EB-100413-001
Sample Location: Not Specified
Matrix: Water
Date Collected: 10/04/13 12:00
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	0.1185	J	ug/l	0.5000	0.0260	1		10/07/13 11:56	EPA 3020A	1,6020A	PD
Arsenic, Total	0.1907	JQ	ug/l	0.5000	0.0850	1	10/04/13 16:40	10/07/13 10:32	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319814
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-08
Client ID: SA71-SD-23-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 91%

Date Collected: 10/04/13 11:35
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	2.64		mg/kg	0.035	0.006	2	10/04/13 17:00	10/07/13 12:06	EPA 3050B	1,6020A	PD

N/A

Project Name: DEVENS
Lab Number: L1319814
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-09
Client ID: SA71-SD-22-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 74%

Date Collected: 10/04/13 11:30
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	5.98		mg/kg	0.042	0.007	2	10/04/13 17:00	10/07/13 12:10	EPA 3050B	1,6020A	PD

N/A

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319814
Report Date: 10/07/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 07 Batch: WG641398-1										
Arsenic, Total	0.1797	J	ug/l	0.5000	0.0850	1	10/04/13 16:40	10/07/13 10:27	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 07 Batch: WG641399-1										
Antimony, Total	ND		ug/l	0.5000	0.0260	1	10/04/13 16:40	10/07/13 11:54	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-06 Batch: WG641401-1										
Arsenic, Total	0.023	J	mg/kg	0.050	0.006	2	10/04/13 17:00	10/07/13 10:59	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 08-09 Batch: WG641402-1										
Antimony, Total	ND		mg/kg	0.050	0.009	2	10/04/13 17:00	10/07/13 12:05	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 07 Batch: WG641398-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	105		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 07 Batch: WG641399-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	104		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG641401-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	104		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 08-09 Batch: WG641402-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	110		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641398-4 QC Sample: L1319814-07 Client ID: EB-100413-001												
Arsenic, Total	0.1907J	500	501.1	100		-	-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641399-4 QC Sample: L1319814-07 Client ID: EB-100413-001												
Antimony, Total	0.1185J	40	42.83	107		-	-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641401-4 WG641401-5 QC Sample: L1319783-01 Client ID: MS Sample												
Arsenic, Total	221.	214	434	99		427	96		80-120	2		20
Total Metals - Mansfield Lab Associated sample(s): 08-09 QC Batch ID: WG641402-4 WG641402-5 QC Sample: L1319814-08 Client ID: SA71-SD-23-001-100413												
Antimony, Total	2.64	1.41	3.85	86		3.12	**34**	Q	80-120	**21**	Q	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641398-3 QC Sample: L1319814-07 Client ID: EB-100413-001						
Arsenic, Total	0.1907J	0.1441J	ug/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641399-3 QC Sample: L1319814-07 Client ID: EB-100413-001						
Antimony, Total	0.1185J	ND	ug/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641401-3 QC Sample: L1319783-01 Client ID: DUP Sample						
Arsenic, Total	221.	224	mg/kg	1		20
Total Metals - Mansfield Lab Associated sample(s): 08-09 QC Batch ID: WG641402-3 QC Sample: L1319814-08 Client ID: SA71-SD-23-001-100413						
Antimony, Total	2.64	8.04	mg/kg	**101**	Q	20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-01
Client ID: RC-SD-06-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:30
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.0		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-02
Client ID: RC-SD-07-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:35
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.4		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-03
Client ID: RC-SD-08-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:40
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.3		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-04
Client ID: RC-SD-11-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:45
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	11.2		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-05
Client ID: RC-SD-12-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:50
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.8		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-06
Client ID: RC-SD-17-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:55
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.37		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-08
Client ID: SA71-SD-23-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:35
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	91.3		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-09
Client ID: SA71-SD-22-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:30
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	74.4		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-06,08-09 QC Batch ID: WG641760-1 QC Sample: L1319814-01 Client ID: RC-SD-06-001-100413						
Solids, Total	10.0	10.2	%	2		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1319814-01A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319814-02A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319814-03A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319814-04A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319814-05A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319814-06A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319814-07A	Plastic 250ml HNO3 preserved	A	<2	2.2	Y	Absent	A2-DOD-SB-6020T(180),A2-DOD-AS-6020T(180)
L1319814-08A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1319814-09A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1319814
Project Number:	AC001.005	**Report Date:**	10/07/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319814
Project Number:	AC001.005	**Report Date:**	10/07/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319814
Project Number:	AC001.005	**Report Date:**	10/07/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

MANSFIELD CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL
World Class Chemistry

Westborough, MA
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA
TEL: 508-822-9300
FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1319814

Project Information

Project Name: DEVENS

Project Location:

Project #: AC001.005

Project Manager: RACHEL LEARY

ALPHA Quote #:

Report Information

☐ FAX
☒ ADEx

Data Deliverables

☒ EMAIL
☐ Add'l Deliverables

Billing Information

☒ Same as Client info

PO #:

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

Client Information

Client: Sovereign Consulting Inc.
Address: 4 OPEN SQUARE WAY
HOLYOKE MA
Phone: 413-540-0650
Fax:
Email: RLEARY@SOVCON.COM

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Due Date: 10/7/13 Time: 1700

Other Project Specific Requirements/Comments/Detection Limits:

☐ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID	Sample ID	Collection		Sample	Sampler's	Total Arsenic by 6020A	Total Antimony by 6020A											Sample Specific Comments	TOTAL # BOTTLES
19814 01	RC-SD-06-001-00413	10-04-13	1130	SD	EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
02	RC-SD-07-001-100413	↓	1135	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
03	RC-SD-08-001-100413	↓	1140	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
04	RC-SD-11-001-100413	↓	1145	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
05	RC-SD-12-001-100413	↓	1150	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
06	RC-SD-17-001-100413	↓	1155	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
07	EB-100413-001	↓	1200	AQ	↓	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
09 ~~08~~	SA71-SD-22-001-100413		11:30	SD	RBL	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
08 ~~09~~	SA71-SD-23-001-100413		11:35	3D	RBL	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
KL 10/4/13						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
					Container Type	P	A	-	-	-	-	-	-	-	-	-	-		
					Preservative	C	A	-	-	-	-	-	-	-	-	-	-		

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	10-4-13	[signature]	10/4/13 1220
[signature]	10/4/13 1305	[signature]	10/4/13 1315
[signature]	10/4/13 1442	[signature]	10/4/13 14:42

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 101-09(I-NJ)
(rev. 5-JAN-12)

ANALYTICAL REPORT

Lab Number:	L1319995
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	10/08/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1319995-01	RC-SD-01-001-100713	PLOW SHOP POND	10/07/13 10:00
L1319995-02	RC-SD-02-001-100713	PLOW SHOP POND	10/07/13 10:05
L1319995-03	RC-SD-03-001-100713	PLOW SHOP POND	10/07/13 10:10
L1319995-04	RC-SD-04-001-100713	PLOW SHOP POND	10/07/13 10:15
L1319995-05	RC-SD-05-001-100713	PLOW SHOP POND	10/07/13 10:20
L1319995-06	FD-100713-01	PLOW SHOP POND	10/07/13 10:00
L1319995-07	EB-100713-01	PLOW SHOP POND	10/07/13 10:30
L1319995-08	RC-SD-09-001-100713	PLOW SHOP POND	10/07/13 13:45
L1319995-09	RC-SD-40-002-100713	PLOW SHOP POND	10/07/13 14:00

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1319995
Project Number: AC001.005 **Report Date:** 10/08/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319995-01 through -06, -08 and -09: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1319995-07: The initial calibration blank and continuing calibration blank have concentrations above the LOD

Project Name:	DEVENS	**Lab Number:**	L1319995
Project Number:	AC001.005	**Report Date:**	10/08/13

Case Narrative (continued)

for arsenic. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 10/08/13

METALS

Project Name: DEVENS
Lab Number: L1319995
Project Number: AC001.005
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-01
Client ID: RC-SD-01-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/07/13 10:00
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	174	Q	mg/kg	0.276	0.034	2	10/07/13 20:00	10/08/13 11:55	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1319995
Project Number: AC001.005
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-02
Client ID: RC-SD-02-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 9%

Date Collected: 10/07/13 10:05
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	177	Q	mg/kg	0.292	0.036	2	10/07/13 20:00	10/08/13 11:59	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1319995
Project Number: AC001.005
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-03
Client ID: RC-SD-03-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/07/13 10:10
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	302	Q	mg/kg	0.262	0.032	2	10/07/13 20:00	10/08/13 12:00	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1319995
Project Number: AC001.005
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-04
Client ID: RC-SD-04-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/07/13 10:15
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	163	Q	mg/kg	0.277	0.034	2	10/07/13 20:00	10/08/13 12:01	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1319995
Project Number: AC001.005
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-05
Client ID: RC-SD-05-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 21%

Date Collected: 10/07/13 10:20
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	86.4	Q	mg/kg	0.130	0.016	2	10/07/13 20:00	10/08/13 12:04	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1319995
Project Number: AC001.005
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-06
Client ID: FD-100713-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 11%

Date Collected: 10/07/13 10:00
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	163	Q	mg/kg	0.258	0.032	2	10/07/13 20:00	10/08/13 12:04	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1319995
Project Number: AC001.005
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-07
Client ID: EB-100713-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 10/07/13 10:30
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.0909	JQ	ug/l	0.5000	0.0850	1	10/07/13 20:00	10/08/13 10:44	EPA 3020A	1,6020A	LR

Project Name: DEVENS
Lab Number: L1319995
Project Number: AC001.005
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-08
Client ID: RC-SD-09-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 36%

Date Collected: 10/07/13 13:45
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	89.2	Q	mg/kg	0.076	0.009	2	10/07/13 20:00	10/08/13 12:05	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1319995
Project Number: AC001.005
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-09
Client ID: RC-SD-40-002-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 54%

Date Collected: 10/07/13 14:00
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	58.6	Q	mg/kg	0.050	0.006	2	10/07/13 20:00	10/08/13 12:06	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319995
Report Date: 10/08/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 07 Batch: WG641884-1										
Arsenic, Total	0.1134	J	ug/l	0.5000	0.0850	1	10/07/13 20:00	10/08/13 10:38	1,6020A	LR

Prep Information

Digestion Method: EPA 3020A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-06,08-09 Batch: WG641886-1										
Arsenic, Total	ND		mg/kg	0.050	0.006	2	10/07/13 20:00	10/08/13 11:49	1,6020A	LR

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1319995

Report Date: 10/08/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 07 Batch: WG641884-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	101		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-06,08-09 Batch: WG641886-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	101		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641884-4 QC Sample: L1319995-07 Client ID: EB-100713-01												
Arsenic, Total	0.0909J	500	503.3	101		-	-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-06,08-09 QC Batch ID: WG641886-4 WG641886-5 QC Sample: L1319995-01 Client ID: RC-SD-01-001-100713												
Arsenic, Total	174.	550	765	107		742	103		80-120	3		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641884-3 QC Sample: L1319995-07 Client ID: EB-100713-01						
Arsenic, Total	0.0909J	0.1347J	ug/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-06,08-09 QC Batch ID: WG641886-3 QC Sample: L1319995-01 Client ID: RC-SD-01-001-100713						
Arsenic, Total	174.	170	mg/kg	2		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-01
Client ID: RC-SD-01-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 10:00
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.1		%	0.100	0.100	1	-	10/08/13 10:45	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-02
Client ID: RC-SD-02-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 10:05
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.46		%	0.100	0.100	1	-	10/08/13 10:45	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-03
Client ID: RC-SD-03-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 10:10
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.3		%	0.100	0.100	1	-	10/08/13 10:45	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-04
Client ID: RC-SD-04-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 10:15
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.74		%	0.100	0.100	1	-	10/08/13 10:45	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-05
Client ID: RC-SD-05-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 10:20
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	20.5		%	0.100	0.100	1	-	10/08/13 10:45	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-06
Client ID: FD-100713-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 10:00
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.6		%	0.100	0.100	1	-	10/08/13 10:45	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-08
Client ID: RC-SD-09-001-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 13:45
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	35.5		%	0.100	0.100	1	-	10/08/13 10:45	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319995-09
Client ID: RC-SD-40-002-100713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 14:00
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	53.8		%	0.100	0.100	1	-	10/08/13 10:45	30,2540G	JW

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-06,08-09 QC Batch ID: WG642066-1 QC Sample: L1319995-01 Client ID: RC-SD-01-001-100713						
Solids, Total	10.1	10.3	%	2		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319995
Report Date: 10/08/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1319995-01A	Amber 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319995-01B	Amber 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319995-01C	Amber 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319995-02A	Amber 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319995-03A	Amber 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319995-04A	Amber 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319995-05A	Amber 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319995-06A	Amber 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319995-07A	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	A2-DOD-AS-6020T(180)
L1319995-08A	Amber 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319995-09A	Amber 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1319995
Project Number:	AC001.005	**Report Date:**	10/08/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319995
Project Number:	AC001.005	**Report Date:**	10/08/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319995
Project Number:	AC001.005	**Report Date:**	10/08/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

2 of 2

CHAIN OF CUSTODY

PAGE OF

Date Rec'd in Lab: 10/7/13

ALPHA Job #: L1319995

ALPHA ANALYTICAL
World-Class Chemistry

Westborough, MA
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA
TEL: 508-822-9300
FAX: 508-822-3288

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 HR TAT

Due Date: 10/8/13 Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Arsenic by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Sample Specific Comments
19995-01	RC-SD-01-001-100713	100713	1000	SD	BS/EF	ms/msD
-02	RC-SD-02-001-100713		1005			
-03	RC-SD-03-001-100713		1010			
-04	RC-SD-04-001-100713		1015			
-05	RC-SD-05-001-100713		1030			
-06	~~RC~~ FD-100713-01		1000			
-07	EB-100713-01		1030	AQ		
-08	RC-SD-09-001-100713		1345	SD		
-09	RC-SD-40-002-100713		1400	SD		

Container Type	P	A	-	-	-	-	-	-	-	-	-	-
Preservative	C	A	-	-	-	-	-	-	-	-	-	-

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-01(I)
(rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
	100713		10/7/13 1601
	10/7/13 1650		10/7/13 1650
	10/7/13 19:10	Mansfield Lab	10/7/13 19:10

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1320115
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	10/10/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1320115-01	RC-SD-41-002-100813	PLOW SHOP POND	10/08/13 13:15
L1320115-02	RC-SD-48-001-100813	PLOW SHOP POND	10/08/13 15:15
L1320115-03	FD-100813-01	PLOW SHOP POND	10/08/13 15:15
L1320115-04	EB-100813-01	PLOW SHOP POND	10/08/13 15:30

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1320115
Project Number: AC001.005 **Report Date:** 10/10/13

Case Narrative (continued)

Report Submission
Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.
All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes
M1 Split or tailing peak, auto integration stopped early resulting in false low area count.
M2 Peak not found by automatic integration algorithm.
M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4 Poor automated baseline construction.
M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7 A qualifier ion was manually integrated (only for GC/MS data).
M8 Integration of individual analyte eluting on top of an unresolved complex.
M9 Other: Explain on chromatogram.

Total Metals
L1320115-01 through -03: The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".
L1320115-01 through -03: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.
The WG642366-1 Method Blank, associated with L1320115-04, has a concentration > ½ RL and < RL and "J"

Project Name:	DEVENS	**Lab Number:**	L1320115
Project Number:	AC001.005	**Report Date:**	10/10/13

Case Narrative (continued)

qualified for arsenic. The associated field sample results are "B" qualified if the concentrations are > ½ RL and less than 10x the concentration in the blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 10/10/13

METALS

Project Name: DEVENS
Lab Number: L1320115
Project Number: AC001.005
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320115-01
Client ID: RC-SD-41-002-100813
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 30%

Date Collected: 10/08/13 13:15
Date Received: 10/08/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	228	Q	mg/kg	0.225	0.028	5	10/09/13 16:41	10/10/13 11:15	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1320115
Project Number: AC001.005
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320115-02
Client ID: RC-SD-48-001-100813
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 87%

Date Collected: 10/08/13 15:15
Date Received: 10/08/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	15.0	Q	mg/kg	0.031	0.004	2	10/09/13 16:41	10/10/13 11:12	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1320115
Project Number: AC001.005
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320115-03
Client ID: FD-100813-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 87%

Date Collected: 10/08/13 15:15
Date Received: 10/08/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	16.9	Q	mg/kg	0.032	0.004	2	10/09/13 16:41	10/10/13 11:12	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1320115
Project Number: AC001.005
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320115-04
Client ID: EB-100813-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 10/08/13 15:30
Date Received: 10/08/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	0.3270	JB	ug/l	0.5000	0.1610	1	10/09/13 07:44	10/09/13 11:28	EPA 3005A	1,6020A	KL

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1320115
Report Date: 10/10/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 04 Batch: WG642366-1										
Arsenic, Total	0.4100	J	ug/l	0.5000	0.1610	1	10/09/13 07:44	10/09/13 10:37	1,6020A	KL

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG642616-1										
Arsenic, Total	0.015	J	mg/kg	0.050	0.006	2	10/09/13 16:41	10/10/13 11:04	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1320115

Report Date: 10/10/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 04 Batch: WG642366-2								
Arsenic, Total	92		-		80-120	-		
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG642616-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	102		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 04 QC Batch ID: WG642366-3 WG642366-4 QC Sample: L1320114-02 Client ID: MS Sample												
Arsenic, Total	19.02	120	136.6	98		138.0	99		80-120	1		20
Total Metals - Mansfield Lab Associated sample(s): 01-03 002-100813 QC Batch ID: WG642616-4 WG642616-5 QC Sample: L1320115-01 Client ID: RC-SD-41-												
Arsenic, Total	228.	181	437	115		380	84		80-120	14		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG642616-3 QC Sample: L1320115-01 Client ID: RC-SD-41-002-100813						
Arsenic, Total	228.	238	mg/kg	4		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320115-01
Client ID: RC-SD-41-002-100813
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/08/13 13:15
Date Received: 10/08/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	30.0		%	0.100	0.100	1	-	10/09/13 09:25	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320115-02
Client ID: RC-SD-48-001-100813
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/08/13 15:15
Date Received: 10/08/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	87.4		%	0.100	0.100	1	-	10/09/13 09:25	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320115-03
Client ID: FD-100813-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/08/13 15:15
Date Received: 10/08/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	86.7		%	0.100	0.100	1	-	10/09/13 09:25	30,2540G	JW

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG642422-1 QC Sample: L1320115-01 Client ID: RC-SD-41-002-100813						
Solids, Total	30.0	30.5	%	2		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320115
Report Date: 10/10/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1320115-01A	Amber 120ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1320115-02A	Amber 120ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1320115-03A	Amber 120ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1320115-04A	Plastic 250ml HNO3 preserved	A	<2	4.2	Y	Absent	DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1320115
Project Number:	AC001.005	**Report Date:**	10/10/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1320115
Project Number:	AC001.005	**Report Date:**	10/10/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1320115
Project Number:	AC001.005	**Report Date:**	10/10/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 10/8/13

ALPHA Job #: L1320115

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA
TEL: 508-822-9300
FAX: 508-822-3288

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED) 24 hr

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total As 6020

SAMPLE HANDLING

Filtration
☐ Done
☐ Not Needed
☐ Lab to do

Preservation
☐ Lab to do

(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials
2015-1	RC-SD-41-002-100813	10/8/13	13:15	Sed	WJB
2	RC-SD-48-001-100813		15:15	Sed	WJB
3	FD-100813-01		15:15	Sed	WJB
4	EB-100813-01		15:30	di H_2O	WJB

Container Type

Preservative

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
	10/8/13		10/8/13 1640

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 10/8/13

ALPHA Job #: L1320115

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED) 24 hr
Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information — Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total As 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total As 6020	TOTAL # BOTTLES
20115-1	RC-SD-41-002-100813	10/8/13	13:15	Sed	WJB	☒	
2	RC-SD-48-001-100813		15:15	Sed	WJB	☒	
3	FD-100813-01		15:15	Sed	WJB	☒	
4	EB-100813-01	↓	15:30	di H_2O	WJB	☒	
						☐	
						☐	
						☐	
						☐	
						☐	
						☐	

Container Type
Preservative

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
	10/8/13		10/8/13 16:40
	10/9/13 0400	Marlborough Lab	10/9/13 0400

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

APPENDIX E

Round House Confirmation Sampling Analytical Data

(See CD Included Separately)

ANALYTICAL REPORT

Lab Number:	L1316595
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	08/28/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1316595-01	SA71-SD-09-001-082613	PLOW SHOP POND	08/26/13 13:50
L1316595-02	FD-082613	PLOW SHOP POND	08/26/13 13:50
L1316595-03	SA71-SD-18-001-082613	PLOW SHOP POND	08/26/13 14:00
L1316595-04	EB-082613-01	PLOW SHOP POND	08/26/13 14:30
L1316595-05	SA71-SD-08-001-082613	PLOW SHOP POND	08/26/13 14:35

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1316595
Project Number: AC001.005 **Report Date:** 08/28/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

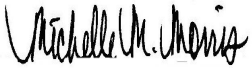
M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

The WG631830-4/-5 MS/MSD recoveries, performed on L1316595-01, are outside the acceptance criteria for antimony (44%/47%); however, the associated LCS recovery is within acceptance criteria. No further action was required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 08/28/13

METALS

Project Name: DEVENS
Lab Number: L1316595
Project Number: AC001.005
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-01
Client ID: SA71-SD-09-001-082613
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 27%

Date Collected: 08/26/13 13:50
Date Received: 08/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	2.36		mg/kg	0.098	0.017	2	08/27/13 10:30	08/27/13 17:45	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316595
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-02
Client ID: FD-082613
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 29%

Date Collected: 08/26/13 13:50
Date Received: 08/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	2.39		mg/kg	0.098	0.017	2	08/27/13 10:30	08/27/13 17:51	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1316595
Project Number: AC001.005
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-03
Client ID: SA71-SD-18-001-082613
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 79%

Date Collected: 08/26/13 14:00
Date Received: 08/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	0.702		mg/kg	0.035	0.006	2	08/27/13 10:30	08/27/13 17:52	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316595
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-04
Client ID: EB-082613-01
Sample Location: PLOW SHOP POND
Matrix: Water
Date Collected: 08/26/13 14:30
Date Received: 08/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.3600	J	ug/l	1.000	0.1120	1	08/27/13 08:25	08/27/13 15:57	EPA 3005A	1,6020A	BM

Project Name: DEVENS
Lab Number: L1316595
Project Number: AC001.005
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-05
Client ID: SA71-SD-08-001-082613
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 29%

Date Collected: 08/26/13 14:35
Date Received: 08/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	2.81		mg/kg	0.095	0.017	2	08/27/13 10:30	08/27/13 17:53	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316595
Report Date: 08/28/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 04 Batch: WG631770-1										
Antimony, Total	0.2100	J	ug/l	1.000	0.1120	1	08/27/13 08:25	08/27/13 15:38	1,6020A	BM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03,05 Batch: WG631830-1										
Antimony, Total	ND		mg/kg	0.050	0.009	2	08/27/13 10:30	08/27/13 17:44	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1316595

Report Date: 08/28/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 04 Batch: WG631770-2								
Antimony, Total	91		-		80-120	-		
Total Metals - Mansfield Lab Associated sample(s): 01-03,05 Batch: WG631830-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	109		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 04 QC Batch ID: WG631770-3 WG631770-4 QC Sample: L1316595-04 Client ID: EB-082613-01												
Antimony, Total	0.3600J	500	453.9	91		455.1	91		80-120	0		20
Total Metals - Mansfield Lab Associated sample(s): 01-03,05 QC Batch ID: WG631830-4 WG631830-5 QC Sample: L1316595-01 Client ID: SA71-SD-09-001-082613												
Antimony, Total	2.36	3.83	4.03	**44**	Q	4.27	**47**	Q	80-120	6		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03,05 QC Batch ID: WG631830-3 QC Sample: L1316595-01 Client ID: SA71-SD-09-001-082613						
Antimony, Total	2.36	2.35	mg/kg	0		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-01
Client ID: SA71-SD-09-001-082613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/26/13 13:50
Date Received: 08/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	27.2		%	0.100	0.100	1	-	08/27/13 11:28	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-02
Client ID: FD-082613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/26/13 13:50
Date Received: 08/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	28.7		%	0.100	0.100	1	-	08/27/13 11:28	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-03
Client ID: SA71-SD-18-001-082613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/26/13 14:00
Date Received: 08/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	78.9		%	0.100	0.100	1	-	08/27/13 11:28	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316595
Report Date: 08/28/13

SAMPLE RESULTS

Lab ID: L1316595-05
Client ID: SA71-SD-08-001-082613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/26/13 14:35
Date Received: 08/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	29.4		%	0.100	0.100	1	-	08/27/13 11:28	30,2540G	KB

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-03,05 QC Batch ID: WG631847-1 QC Sample: L1316595-01 Client ID: SA71-SD-09-001-082613						
Solids, Total	27.2	26.5	%	3		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316595
Report Date: 08/28/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316595-01A	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316595-01B	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-DOD-SB-6020T(180)
L1316595-01C	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-DOD-SB-6020T(180)
L1316595-02A	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316595-03A	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316595-04A	Plastic 250ml HNO3 preserved	A	<2	2.3	Y	Absent	DOD-SB-6020T(180)
L1316595-05A	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)

Container Comments

L1316595-01C

L1316595-02A

L1316595-03A

L1316595-05A

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1316595
Project Number:	AC001.005	**Report Date:**	08/28/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316595
Project Number:	AC001.005	**Report Date:**	08/28/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316595
Project Number:	AC001.005	**Report Date:**	08/28/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 8/26/13

ALPHA Job #: L1316595

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)
24 hr TAT
Due Date: 8/27/13 Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Sb by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Sb by 6020	Sample Specific Comments
16595-01	SA71-SD-09-001-082613	8-26-13	1350	SED	EF	☒	ms/msD
-02	FD-082613	8-26-13	1350	SED	EF	☒	
-03	SA71-SD-18-001-082613	8-26-13	1400	SED	EF	☒	
-04	EB-082613-01	8-26-13	1430	AQ	EF	☒	
-05	SA71-SD-08-001-082613	8-26-13	1435	SED	EF	☒	

Container Type	A	P	-	-	-	-	-	-	-	-	-	-	
Preservative	A	C	-	-	-	-	-	-	-	-	-	-	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Erin Jay	082613 1450		8/26/13 1450
	08/26/13 1545		8/26/13 1545

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 8/26/13

ALPHA Job #: L1316595

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)
24 hr TAT
Due Date: 8/27/13 Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Sb by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Sb by 6020												Sample Specific Comments	TOTAL # BOTTLES
16595-01	SA71-SD-09-001-082613	8.26.13	1350	SED	EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	ms/msd	
-02	FD-082613	8.26.13	1350	SED	EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-03	SA71-SD-18-001-082613	8.26.13	1400	SED	EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-04	EB-082613-01	8.26.13	1430	AQ	EF	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-05	SA71-SD-08-001-082613	8.26.13	1435	SED	EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
					Container Type	A	P	-	-	-	-	-	-	-	-	-	-		
					Preservative	A	C	-	-	-	-	-	-	-	-	-	-		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Eric Jay	082613 1450		8/26/13 1450
	08/26/13 1545		8/26/13 1545
	8/27/13 01:30	Mansfield Lab	8/27/13 01:30

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1316812
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	08/30/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1316812-01	SA-71-SD-07-001-082813	PLOW SHOP POND	08/28/13 09:30
L1316812-02	SA-71-SD-06-001-082813	PLOW SHOP POND	08/28/13 09:40
L1316812-03	SA-71-SD-05-001-082813	PLOW SHOP POND	08/28/13 10:00
L1316812-04	SA-71-SD-04-001-082813	PLOW SHOP POND	08/28/13 10:10
L1316812-05	SA-71-SD-15-001-082813	PLOW SHOP POND	08/28/13 12:15
L1316812-06	SA-71-SD-14-001-082813	PLOW SHOP POND	08/28/13 12:20
L1316812-07	SA-71-SD-13-001-082813	PLOW SHOP POND	08/28/13 14:05
L1316812-08	SA-71-SD-03-001-082813	PLOW SHOP POND	08/28/13 14:15
L1316812-09	SA-71-SD-12-001-082813	PLOW SHOP POND	08/28/13 14:30
L1316812-10	SA-71-SD-02-001-082813	PLOW SHOP POND	08/28/13 14:45
L1316812-11	FD-082813-01	PLOW SHOP POND	08/28/13 14:05
L1316812-12	EB-082813-01	PLOW SHOP POND	08/28/13 14:40

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1316812
Project Number: AC001.005 **Report Date:** 08/30/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

The concentration of the ICSA was above the LOD for antimony. All associated sample results have been qualified with a "Q".

The initial calibration blank and continuing calibration blank were above the LOD for antimony; however, the sample was below the detection limit.

The initial reporting limit standard recovery was above the acceptance limit of 120% for antimony; however, the sample was below the detection limit.

Project Name:	DEVENS	**Lab Number:**	L1316812
Project Number:	AC001.005	**Report Date:**	08/30/13

Case Narrative (continued)

WG632505: A laboratory duplicate and/or matrix spike could not be performed due to insufficient sample volume available for analysis.

The WG632504-4/-5 MS/MSD recoveries, performed on L1316812-07, are above the acceptance criteria for antimony (565%/190%); however, the associated LCS recovery was within criteria. The parent sample should be qualified as "J" for this element.

The WG632504-4/-5 MS/MSD RPD, performed on L1316812-07, is above the acceptance criteria for antimony (59%). The parent sample should be qualified as "J" for this element.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Lisa Westerlind

Title: Technical Director/Representative Date: 08/30/13

METALS

Project Name: DEVENS
Lab Number: L1316812
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-01
Client ID: SA-71-SD-07-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 17%

Date Collected: 08/28/13 09:30
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	6.05	Q	mg/kg	0.168	0.030	2	08/29/13 11:00	08/30/13 12:04	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1316812
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-02
Client ID: SA-71-SD-06-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 12%

Date Collected: 08/28/13 09:40
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	6.37	Q	mg/kg	0.282	0.050	2	08/29/13 11:00	08/30/13 12:05	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1316812
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-03
Client ID: SA-71-SD-05-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 10%

Date Collected: 08/28/13 10:00
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	5.59	Q	mg/kg	0.277	0.049	2	08/29/13 11:00	08/30/13 12:07	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1316812
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-04
Client ID: SA-71-SD-04-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 8%

Date Collected: 08/28/13 10:10
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	5.95	Q	mg/kg	0.387	0.068	2	08/29/13 11:00	08/30/13 12:08	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1316812
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-05
Client ID: SA-71-SD-15-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 43%

Date Collected: 08/28/13 12:15
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	8.28	Q	mg/kg	0.067	0.012	2	08/29/13 11:00	08/30/13 12:21	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1316812
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-06
Client ID: SA-71-SD-14-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 33%

Date Collected: 08/28/13 12:20
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	6.66	Q	mg/kg	0.091	0.016	2	08/29/13 11:00	08/30/13 12:10	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1316812
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-07
Client ID: SA-71-SD-13-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 28%

Date Collected: 08/28/13 14:05
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	10.4	Q	mg/kg	0.102	0.018	2	08/29/13 11:00	08/30/13 12:10	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1316812
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-08
Client ID: SA-71-SD-03-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 9%

Date Collected: 08/28/13 14:15
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	5.98	Q	mg/kg	0.317	0.056	2	08/29/13 11:00	08/30/13 12:15	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1316812
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-09
Client ID: SA-71-SD-12-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 35%

Date Collected: 08/28/13 14:30
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	3.23	Q	mg/kg	0.085	0.015	2	08/29/13 11:00	08/30/13 12:17	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1316812
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-10
Client ID: SA-71-SD-02-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 13%

Date Collected: 08/28/13 14:45
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	4.53	Q	mg/kg	0.225	0.040	2	08/29/13 11:00	08/30/13 12:18	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1316812
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-11
Client ID: FD-082813-01
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 33%

Date Collected: 08/28/13 14:05
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	8.25	Q	mg/kg	0.088	0.016	2	08/29/13 11:00	08/30/13 12:19	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1316812
Project Number: AC001.005
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-12
Client ID: EB-082813-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/28/13 14:40
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	0.1394	QJ	ug/l	0.5000	0.0260	1	08/29/13 11:00	08/30/13 11:24	EPA 3020A	1,6020A	LR

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316812
Report Date: 08/30/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-11 Batch: WG632504-1										
Antimony, Total	ND		mg/kg	0.050	0.009	2	08/29/13 11:00	08/30/13 12:02	1,6020A	LR

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 12 Batch: WG632505-1										
Antimony, Total	ND		ug/l	0.5000	0.0260	1	08/29/13 11:00	08/30/13 11:22	1,6020A	LR

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1316812

Report Date: 08/30/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG632504-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	110		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 12 Batch: WG632505-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	108		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG632504-4 WG632504-5 QC Sample: L1316812-07 Client ID: SA-71-SD-13-001-082813												
Antimony, Total	10.4	4.04	33.2	**565**	Q	18.0	**190**	Q	80-120	**59**	Q	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG632504-3 QC Sample: L1316812-07 Client ID: SA-71-SD-13-001-082813						
Antimony, Total	10.4	10.5	mg/kg	1		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-01
Client ID: SA-71-SD-07-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 09:30
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	17.1		%	0.100	0.100	1	-	08/29/13 08:53	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-02
Client ID: SA-71-SD-06-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 09:40
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	11.6		%	0.100	0.100	1	-	08/29/13 08:53	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-03
Client ID: SA-71-SD-05-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 10:00
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.3		%	0.100	0.100	1	-	08/29/13 08:53	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-04
Client ID: SA-71-SD-04-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 10:10
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	7.83		%	0.100	0.100	1	-	08/29/13 08:53	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-05
Client ID: SA-71-SD-15-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 12:15
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	42.8		%	0.100	0.100	1	-	08/29/13 08:53	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-06
Client ID: SA-71-SD-14-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 12:20
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	33.0		%	0.100	0.100	1	-	08/29/13 08:53	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-07
Client ID: SA-71-SD-13-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 14:05
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	28.0		%	0.100	0.100	1	-	08/29/13 08:53	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-08
Client ID: SA-71-SD-03-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 14:15
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.39		%	0.100	0.100	1	-	08/29/13 08:53	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-09
Client ID: SA-71-SD-12-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 14:30
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	34.5		%	0.100	0.100	1	-	08/29/13 08:53	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-10
Client ID: SA-71-SD-02-001-082813
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 14:45
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	13.4		%	0.100	0.100	1	-	08/29/13 08:53	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

SAMPLE RESULTS

Lab ID: L1316812-11
Client ID: FD-082813-01
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 08/28/13 14:05
Date Received: 08/28/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	32.5		%	0.100	0.100	1	-	08/29/13 08:53	30,2540G	KB

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG632451-1 QC Sample: L1316812-07 Client ID: SA-71-SD-13-001-082813						
Solids, Total	28.0	28.9	%	3		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316812
Report Date: 08/30/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316812-01A	Amber 100ml unpreserved	A	N/A	2.4	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316812-02A	Amber 100ml unpreserved	A	N/A	2.4	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316812-03A	Amber 100ml unpreserved	A	N/A	2.4	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316812-04A	Amber 100ml unpreserved	A	N/A	2.4	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316812-05A	Amber 100ml unpreserved	A	N/A	2.4	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316812-06A	Amber 100ml unpreserved	A	N/A	2.4	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316812-07A	Amber 100ml unpreserved	A	N/A	2.4	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316812-07B	Amber 100ml unpreserved	A	N/A	2.4	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316812-07C	Amber 100ml unpreserved	A	N/A	2.4	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316812-08A	Amber 100ml unpreserved	A	N/A	2.4	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316812-09A	Amber 100ml unpreserved	A	N/A	2.4	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316812-10A	Amber 100ml unpreserved	A	N/A	2.4	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316812-11A	Amber 100ml unpreserved	A	N/A	2.4	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316812-12A	Plastic 250ml HNO3 preserved	A	<2	2.4	Y	Absent	A2-DOD-SB-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1316812
Project Number:	AC001.005	**Report Date:**	08/30/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316812
Project Number:	AC001.005	**Report Date:**	08/30/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316812
Project Number:	AC001.005	**Report Date:**	08/30/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

CHAIN OF CUSTODY

PAGE 1 OF 2

ALPHA Job #: L1316812

Date Rec'd in Lab:

ALPHA ANALYTICAL
Westborough, MA TEL 508-898-9220 FAX 508-898-9193
Mansfield, MA TEL 508-822-9300 FAX 508-822-3288

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24hr TAT

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Sb by 6020

SAMPLE HANDLING

Filtration
☐ Done
☐ Not Needed
☐ Lab to do

Preservation
☐ Lab to do

(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Sb by 6020	Sample Specific Comments
1	SA-71-SD-07-001-082813	8/28/13	0930	SD	EF	☒	
2	SA-71-SD-06-001-082813	8/28/13	0940	SD	EF	☒	
3	SA-71-SD-05-001-082813	8/28/13	1000	SD	EF	☒	
4	SA-71-SD-04-001-082813	8/28/13	1010	SD	EF	☒	
9	SA-71-SD-15-001-082813	8/28/13	1215	SD	EF	☒	
6	SA-71-SD-14-001-082813	8/28/13	1220	SD	EF	☒	
7	SA-71-SD-13-001-082813	8/28/13	1405	SD	EF	☒	ms/msd
8	SA-71-SD-03-001-082813	8/28/13	1415	SD	EF	☒	
9	SA-71-SD-01-001-082813	8/28/13	1430	SD	EF	☒	
10	SA-71-SD-02-001-082813	8/28/13	1445	SD	EF	☒	

Container Type	A	P	-	-	-	-	-	-	-	-	-	-	
Preservative	A	C	-	-	-	-	-	-	-	-	-	-	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	8/28/13 1615		8/28/13
	8/28/13 17:15	Mansfield Lab	8/28/13 17:15
	8/29/13 03:00		8/29/13 03:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

16 15

FORM NO: 01-01(I) (rev. 5-JAN-12)

CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab:

ALPHA Job #:

ANALYTICAL
Quality Data Solutions

Westborough, MA TEL. 508-898-9220 FAX 508-898-9193
Mansfield, MA TEL 508-822-9300 FAX: 508-822-3288

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24hr TAT

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY - CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Sb by 6010

SAMPLE HANDLING

Filtration
☐ Done
☐ Not Needed
☐ Lab to do

Preservation
☐ Lab to do

(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials												
11	FD-082813-01	8/28/13	1405	SD	EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
12	EB-082813-01	8/28/13	1440	AQ	EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		

Container Type	A	P	-	-	-	-	-	-	-	-	-	-
Preservative	A	C	-	-	-	-	-	-	-	-	-	-

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I)
(rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Estes	8.28.13 16:15		
	8/28/13 17:15		8/28/13 17:15
	8/29/13 03:00		8/29/13 03:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

16:15

ANALYTICAL REPORT

Lab Number:	L1316932
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/03/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1316932-01	SA-71-SD-01-001-082913	PLOW SHOP POND	08/29/13 14:05
L1316932-02	EB-082913-01	PLOW SHOP POND	08/29/13 14:50

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1316932
Project Number: AC001.005 **Report Date:** 09/03/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

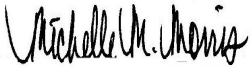
M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for antimony. All associated sample results have been qualified with a "Q".

WG633143: A laboratory duplicate and/or matrix spike could not be performed due to insufficient sample volume available for analysis.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 09/03/13

METALS

Project Name: DEVENS
Lab Number: L1316932
Project Number: AC001.005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1316932-01
Client ID: SA-71-SD-01-001-082913
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 11%

Date Collected: 08/29/13 14:05
Date Received: 08/29/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	6.16	Q	mg/kg	0.232	0.041	2	09/02/13 08:30	09/03/13 10:33	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1316932
Project Number: AC001.005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1316932-02
Client ID: EB-082913-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/29/13 14:50
Date Received: 08/29/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	0.1104	JQ	ug/l	0.5000	0.0260	1	09/02/13 08:30	09/03/13 11:25	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1316932
Report Date: 09/03/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG633142-1										
Antimony, Total	ND		mg/kg	0.050	0.009	2	09/02/13 08:30	09/03/13 10:31	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02 Batch: WG633143-1										
Antimony, Total	ND		ug/l	0.5000	0.0260	1	09/02/13 08:30	09/03/13 11:23	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1316932

Report Date: 09/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG633142-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	110		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG633143-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	109		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG633142-4 WG633142-5 QC Sample: L1317005-04 Client ID: MS Sample												
Antimony, Total	2.04	2.51	3.48	**57**	Q	3.64	**64**	Q	80-120	4		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG633142-3 QC Sample: L1317005-04 Client ID: DUP Sample						
Antimony, Total	2.04	1.90	mg/kg	7		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1316932-01
Client ID: SA-71-SD-01-001-082913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/29/13 14:05
Date Received: 08/29/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	11.1		%	0.100	0.100	1	-	08/30/13 10:00	30,2540G	KB

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG632802-1 QC Sample: L1316932-01 Client ID: SA-71-SD-01-001-082913						
Solids, Total	11.1	11.2	%	1		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1316932
Report Date: 09/03/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316932-01A	Amber 100ml unpreserved	A	N/A	1.7	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1316932-02A	Plastic 250ml HNO3 preserved	A	<2	1.7	Y	Absent	A2-DOD-SB-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1316932
Project Number:	AC001.005	**Report Date:**	09/03/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316932
Project Number:	AC001.005	**Report Date:**	09/03/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1316932
Project Number:	AC001.005	**Report Date:**	09/03/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

CHAIN OF CUSTODY

PAGE 1 OF 1

1/2

ALPHA ANALYTICAL — Worldwide Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1316932

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)
24 hr TAT
Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total sb by Cooc

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials
L1316932 - 1	SA-71-SD-01-001-082913	8/29/13	1405	SD	EF
-2	EB-082913-01	8/29/13	1450	AQ	EF

Container Type	A	P										
Preservative	A	C										

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
	8/29/13		8/29/13 1453
	8/29/13 1535		8/29/13 15:35
	8/30/13 03:00	Manchester Lab	8/30/13 03:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1317005
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Peter Dacyk
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/03/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1317005-01	SA-71-SD-11-001-083013	PLOW SHOP POND	08/30/13 11:30
L1317005-02	SA-71-SD-10-001-083013	PLOW SHOP POND	08/30/13 11:40
L1317005-03	SA-71-SD-17-001-083013	PLOW SHOP POND	08/30/13 12:00
L1317005-04	SA-71-SD-16-001-083013	PLOW SHOP POND	08/30/13 12:10
L1317005-05	FD-083013-01	PLOW SHOP POND	08/30/13 12:10
L1317005-06	EB-083013-01	PLOW SHOP POND	08/30/13 12:25

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1317005
Project Number: AC001.005 **Report Date:** 09/03/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for antimony. All associated sample results have been qualified with a "Q".

The WG633222-1 Method Blank, associated with L1317005-06, has a concentration > ½ RL and < RL and is "J" qualified for antimony. The associated field sample results are "B" qualified if the concentrations are > ½ RL and less than 10x the concentration in the blank.

The WG633142-4/-5 MS/MSD recoveries, performed on L1317005-04, are below the acceptance criteria for

Project Name:	DEVENS	**Lab Number:**	L1317005
Project Number:	AC001.005	**Report Date:**	09/03/13

Case Narrative (continued)

antimony (57%/64%); however, the associated LCS recovery was within criteria. No further action was taken. The parent sample (L1317005-04) should be qualified as "J" for this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/03/13

METALS

Project Name: DEVENS
Lab Number: L1317005
Project Number: AC001.005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-01
Client ID: SA-71-SD-11-001-083013
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 50%

Date Collected: 08/30/13 11:30
Date Received: 08/30/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	10.1	Q	mg/kg	0.055	0.010	2	09/02/13 08:30	09/03/13 10:34	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317005
Project Number: AC001.005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-02
Client ID: SA-71-SD-10-001-083013
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 66%

Date Collected: 08/30/13 11:40
Date Received: 08/30/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	2.89	Q	mg/kg	0.044	0.008	2	09/02/13 08:30	09/03/13 10:36	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317005
Project Number: AC001.005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-03
Client ID: SA-71-SD-17-001-083013
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 67%

Date Collected: 08/30/13 12:00
Date Received: 08/30/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	1.18	Q	mg/kg	0.042	0.007	2	09/02/13 08:30	09/03/13 10:37	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317005
Project Number: AC001.005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-04
Client ID: SA-71-SD-16-001-083013
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 45%

Date Collected: 08/30/13 12:10
Date Received: 08/30/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	2.04	Q	mg/kg	0.062	0.011	2	09/02/13 08:30	09/03/13 10:38	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317005
Project Number: AC001.005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-05
Client ID: FD-083013-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 36%

Date Collected: 08/30/13 12:10
Date Received: 08/30/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	3.14	Q	mg/kg	0.072	0.013	2	09/02/13 08:30	09/03/13 10:42	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317005
Project Number: AC001.005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-06
Client ID: EB-083013-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 08/30/13 12:25
Date Received: 08/30/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.2620	JB	ug/l	0.5000	0.1120	1	09/03/13 09:18	09/03/13 13:42	EPA 3005A	1,6020A	AK

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317005
Report Date: 09/03/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG633142-1										
Antimony, Total	ND		mg/kg	0.050	0.009	2	09/02/13 08:30	09/03/13 10:31	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 06 Batch: WG633222-1										
Antimony, Total	0.3510	J	ug/l	0.5000	0.1120	1	09/03/13 09:18	09/03/13 13:38	1,6020A	AK

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1317005

Report Date: 09/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG633142-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	110		-		80-120	-		20
Total Metals - Westborough Lab Associated sample(s): 06 Batch: WG633222-2								
Antimony, Total	88		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG633142-4 WG633142-5 QC Sample: L1317005-04 Client ID: SA-71-SD-16-001-083013												
Antimony, Total	2.04	2.51	3.48	**57**	Q	3.64	**64**	Q	80-120	4		20
Total Metals - Westborough Lab Associated sample(s): 06 QC Batch ID: WG633222-4 QC Sample: L1316977-01 Client ID: MS Sample												
Antimony, Total	1.529	500	451.9	90		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG633142-3 QC Sample: L1317005-04 Client ID: SA-71-SD-16-001-083013						
Antimony, Total	2.04	1.90	mg/kg	7		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-01
Client ID: SA-71-SD-11-001-083013
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/30/13 11:30
Date Received: 08/30/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	50.4		%	0.100	0.100	1	-	09/03/13 10:57	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-02
Client ID: SA-71-SD-10-001-083013
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/30/13 11:40
Date Received: 08/30/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	65.6		%	0.100	0.100	1	-	09/03/13 10:57	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-03
Client ID: SA-71-SD-17-001-083013
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/30/13 12:00
Date Received: 08/30/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	66.9		%	0.100	0.100	1	-	09/03/13 10:57	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-04
Client ID: SA-71-SD-16-001-083013
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/30/13 12:10
Date Received: 08/30/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	44.7		%	0.100	0.100	1	-	09/03/13 10:57	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

SAMPLE RESULTS

Lab ID: L1317005-05
Client ID: FD-083013-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 08/30/13 12:10
Date Received: 08/30/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	36.2		%	0.100	0.100	1	-	09/03/13 10:57	30,2540G	KB

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG633279-1 QC Sample: L1317005-04 Client ID: SA-71-SD-16-001-083013						
Solids, Total	44.7	45.5	%	2		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317005
Report Date: 09/03/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1317005-01A	Amber 100ml unpreserved	A	N/A	4.1	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317005-02A	Amber 100ml unpreserved	A	N/A	4.1	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317005-03A	Amber 100ml unpreserved	A	N/A	4.1	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317005-04A	Amber 100ml unpreserved	A	N/A	4.1	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317005-04B	Amber 100ml unpreserved	A	N/A	4.1	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317005-04C	Amber 100ml unpreserved	A	N/A	4.1	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317005-05A	Amber 100ml unpreserved	A	N/A	4.1	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317005-06A	Plastic 250ml HNO3 preserved	A	<2	4.1	Y	Absent	DOD-SB-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1317005
Project Number:	AC001.005	**Report Date:**	09/03/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317005
Project Number:	AC001.005	**Report Date:**	09/03/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317005
Project Number:	AC001.005	**Report Date:**	09/03/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

1 of 2

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 8/30/13

ALPHA Job #: L1317005

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)
24 HR TAT
Due Date: 9/3/13 Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information — Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Sb by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Sb by 6020	Sample Specific Comments
17005-01	SA-71-SD-11-001-083013	8/30/13	1130	SD	SL	☒	
-02	SA-71-SD-10-001-083013	8/30/13	1140	SD	EF	☒	
-03	SA-71-SD-12-001-083013	8/30/13	1200	SD	EF	☒	
-04	SA-71-SD-16-001-083013	8/30/13	1210	SD	EF	☒	MS/MSD
-05	FD-083013-01	8/30/13	1210	SD	EF	☒	
-06	EB-083013-01	8/30/13	1225	AQ	EF	☒	
						☐	
						☐	
						☐	
						☐	

Container Type	A	P	-	-	-	-	-	-	-	-	-	-
Preservative	A	C	-	-	-	-	-	-	-	-	-	-

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Erin Tobey	8.30.13	T. Hendelson	8/30/13 1340
T. Hendelson	8/30/13 1815		8/30/13 18:15
	8/31/13 0300	Mansfield Lab	8/31/13 03:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1317463
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/10/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1317463-01	SA-71-SD-05-002-090613	PLOW SHOP POND	09/06/13 11:20
L1317463-02	SA-71-SD-04-002-090613	PLOW SHOP POND	09/06/13 11:25
L1317463-03	SA-71-SD-06-002-090613	PLOW SHOP POND	09/06/13 12:00
L1317463-04	FD-090613-01	PLOW SHOP POND	09/06/13 11:20
L1317463-05	EB-090613-01	PLOW SHOP POND	09/06/13 12:20
L1317463-06	SA-71-SD-15-002-090613	PLOW SHOP POND	09/06/13 14:40
L1317463-07	SA-71-SD-14-002-090613	PLOW SHOP POND	09/06/13 15:10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1317463
Project Number: AC001.005 **Report Date:** 09/10/13

Case Narrative (continued)

Report Submission
Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.
All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes
M1 Split or tailing peak, auto integration stopped early resulting in false low area count.
M2 Peak not found by automatic integration algorithm.
M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4 Poor automated baseline construction.
M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7 A qualifier ion was manually integrated (only for GC/MS data).
M8 Integration of individual analyte eluting on top of an unresolved complex.
M9 Other: Explain on chromatogram.

Metals
The concentration of the ICSA was above the LOD for antimony. All associated samples have been qualified with a "Q".
The initial calibration blank and continuous calibration blank, associated with L1317463-05, has concentrations above the LOD for antimony. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.
The WG634625-4/-5 MS/MSD recoveries, performed on L1317463-01, are below the acceptance criteria for

Project Name:	DEVENS	**Lab Number:**	L1317463
Project Number:	AC001.005	**Report Date:**	09/10/13

Case Narrative (continued)

antimony (65%/46%); however, the associated LCS recovery was within criteria. No further action was taken. The parent sample (L1317463-01) should be qualified as "J" for this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/10/13

METALS

Project Name: DEVENS
Lab Number: L1317463
Project Number: AC001.005
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-01
Client ID: SA-71-SD-05-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 14%

Date Collected: 09/06/13 11:20
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	6.93	Q	mg/kg	0.201	0.036	2	09/09/13 11:00	09/10/13 10:09	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317463
Project Number: AC001.005
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-02
Client ID: SA-71-SD-04-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 11%

Date Collected: 09/06/13 11:25
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	7.81	Q	mg/kg	0.268	0.047	2	09/09/13 11:00	09/10/13 10:15	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317463
Project Number: AC001.005
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-03
Client ID: SA-71-SD-06-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 12%

Date Collected: 09/06/13 12:00
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	3.08	Q	mg/kg	0.217	0.038	2	09/09/13 11:00	09/10/13 10:15	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317463
Project Number: AC001.005
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-04
Client ID: FD-090613-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 14%

Date Collected: 09/06/13 11:20
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	6.10	Q	mg/kg	0.186	0.033	2	09/09/13 11:00	09/10/13 10:16	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317463
Project Number: AC001.005
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-05
Client ID: EB-090613-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/06/13 12:20
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	0.1054	JQ	ug/l	0.5000	0.0260	1	09/09/13 11:00	09/10/13 10:43	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317463
Project Number: AC001.005
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-06
Client ID: SA-71-SD-15-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 15%

Date Collected: 09/06/13 14:40
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	2.89	Q	mg/kg	0.181	0.032	2	09/09/13 11:00	09/10/13 10:17	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1317463
Project Number: AC001.005
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-07
Client ID: SA-71-SD-14-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 17%

Date Collected: 09/06/13 15:10
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	7.52	Q	mg/kg	0.168	0.030	2	09/09/13 11:00	09/10/13 10:18	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317463
Report Date: 09/10/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04,06-07 Batch: WG634625-1										
Antimony, Total	ND		mg/kg	0.050	0.009	2	09/09/13 11:00	09/10/13 10:07	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 05 Batch: WG634627-1										
Antimony, Total	ND		ug/l	0.5000	0.00003	1	09/09/13 11:00	09/10/13 10:41	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1317463

Report Date: 09/10/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04,06-07 Batch: WG634625-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	110		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 05 Batch: WG634627-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	110		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04,06-07 QC Batch ID: WG634625-4 WG634625-5 QC Sample: L1317463-01 Client ID: SA-71-SD-05-002-090613												
Antimony, Total	6.93	8.14	12.2	**65**	Q	10.7	**46**	Q	80-120	13		20
Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG634627-4 QC Sample: L1317463-05 Client ID: EB-090613-01												
Antimony, Total	0.1054J	40	44.3	111		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04,06-07 QC Batch ID: WG634625-3 QC Sample: L1317463-01 Client ID: SA-71-SD-05-002-090613						
Antimony, Total	6.93	7.07	mg/kg	2		20
Total Metals - Mansfield Lab Associated sample(s): 05 QC Batch ID: WG634627-3 QC Sample: L1317463-05 Client ID: EB-090613-01						
Antimony, Total	0.1054J	ND	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-01
Client ID: SA-71-SD-05-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 11:20
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	13.5		%	0.100	0.100	1	-	09/09/13 08:39	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-02
Client ID: SA-71-SD-04-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 11:25
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.9		%	0.100	0.100	1	-	09/09/13 08:39	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-03
Client ID: SA-71-SD-06-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 12:00
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	12.1		%	0.100	0.100	1	-	09/09/13 08:39	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-04
Client ID: FD-090613-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 11:20
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	13.9		%	0.100	0.100	1	-	09/09/13 08:39	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-06
Client ID: SA-71-SD-15-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 14:40
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	15.2		%	0.100	0.100	1	-	09/09/13 08:39	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

SAMPLE RESULTS

Lab ID: L1317463-07
Client ID: SA-71-SD-14-002-090613
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/06/13 15:10
Date Received: 09/06/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	16.7		%	0.100	0.100	1	-	09/09/13 08:39	30,2540G	KB

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-04,06-07 QC Batch ID: WG634553-1 QC Sample: L1317463-01 Client ID: SA-71-SD-05-002-090613						
Solids, Total	13.5	13.7	%	1		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317463
Report Date: 09/10/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1317463-01A	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317463-01B	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317463-01C	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317463-02A	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317463-03A	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317463-04A	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317463-05A	Plastic 250ml HNO3 preserved	A	<2	5	Y	Absent	A2-DOD-SB-6020T(180)
L1317463-06A	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317463-07A	Amber 100ml unpreserved	A	N/A	5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1317463
Project Number:	AC001.005	**Report Date:**	09/10/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317463
Project Number:	AC001.005	**Report Date:**	09/10/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317463
Project Number:	AC001.005	**Report Date:**	09/10/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — Worldclass Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1317463

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 hour TAT

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information — Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Sb by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Sb by 6020	Sample Specific Comments
L1317463-1	SA-71-SD-05-002-090613	090613	1120	SD	SD	☒	MS/MSD
-2	SA-71-SD-04-002-090613	090613	1125	SD	SD	☒	
-3	SA-71-SD-06-002-090613	090613	1200	SD	FE ~~SD~~ BS	☒	
-4	FD-090613-01	090613	1120	SD	SD	☒	
-5	EB-090613-01	090613	1220	AQ	BS	☒	
-6	SA-71-SD-15-002-090613	090613	1440	SD	BS	☒	
-7	SA-71-SD-14-002-090613	090613	1510	SD	SD	☒	

Container Type	A	P	-	-	-	-	-	-	-	-	-	-	
Preservative	A	C	-	-	-	-	-	-	-	-	-	-	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Erin Joy MSM	090613 1517	MSM	9/6/13 1517
MSM	9/6/13 1610	Erin	9/6/13 1610
Erin MSM	9/6/13 1640	MSM	9/6/13 1635
MSM	9/6/13 1800		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1317704
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/12/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1317704-01	SA71-SD-01-002-091013	PLOW SHOP POND	09/10/13 10:45
L1317704-02	SA71-SD-11-002-091013	PLOW SHOP POND	09/10/13 11:15
L1317704-03	SA71-SD-03-002-091013	PLOW SHOP POND	09/10/13 11:30
L1317704-04	SA71-SD-13-002-091013	PLOW SHOP POND	09/10/13 11:35
L1317704-05	FD-091013-01	PLOW SHOP POND	09/10/13 11:35
L1317704-06	EB-091013-01	PLOW SHOP POND	09/10/13 11:45

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1317704
Project Number: AC001.005 **Report Date:** 09/12/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

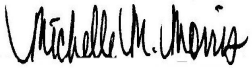
M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for antimony. All associated samples have been qualified with a "Q".

The initial calibration blank and continuous calibration blank, associated with L1317704-06, have concentrations above the LOD for antimony. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 09/12/13

METALS

Project Name: DEVENS
Lab Number: L1317704
Project Number: AC001.005
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-01
Client ID: SA71-SD-01-002-091013
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 10%

Date Collected: 09/10/13 10:45
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	1.56	Q	mg/kg	0.292	0.052	2	09/11/13 11:00	09/12/13 11:03	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1317704
Project Number: AC001.005
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-02
Client ID: SA71-SD-11-002-091013
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 11%

Date Collected: 09/10/13 11:15
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	50.8	Q	mg/kg	0.270	0.048	2	09/11/13 11:00	09/12/13 11:04	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1317704
Project Number: AC001.005
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-03
Client ID: SA71-SD-03-002-091013
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 11%

Date Collected: 09/10/13 11:30
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	0.602	Q	mg/kg	0.242	0.043	2	09/11/13 11:00	09/12/13 11:06	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1317704
Project Number: AC001.005
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-04
Client ID: SA71-SD-13-002-091013
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 9%

Date Collected: 09/10/13 11:35
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	1.62	Q	mg/kg	0.329	0.058	2	09/11/13 11:00	09/12/13 11:07	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1317704
Project Number: AC001.005
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-05
Client ID: FD-091013-01
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 9%

Date Collected: 09/10/13 11:35
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	2.43	Q	mg/kg	0.325	0.057	2	09/11/13 11:00	09/12/13 11:11	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1317704
Project Number: AC001.005
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-06
Client ID: EB-091013-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/10/13 11:45
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	0.1590	JQ	ug/l	0.5000	0.0260	1	09/11/13 11:00	09/12/13 09:58	EPA 3020A	1,6020A	LR

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317704
Report Date: 09/12/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG635275-1										
Antimony, Total	ND		mg/kg	0.050	0.009	2	09/11/13 11:00	09/12/13 11:02	1,6020A	LR

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 06 Batch: WG635276-1										
Antimony, Total	ND		ug/l	0.5000	0.0260	1	09/11/13 11:00	09/12/13 09:56	1,6020A	LR

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1317704

Report Date: 09/12/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG635275-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	106		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 06 Batch: WG635276-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	106		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG635275-4 WG635275-5 QC Sample: L1317704-04 Client ID: SA71-SD-13-002-091013												
Antimony, Total	1.62	12.6	14.0	98		14.2	99		80-120	1		20
Total Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG635276-4 QC Sample: L1317704-06 Client ID: EB-091013-01												
Antimony, Total	0.1590J	40	42.90	107		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG635275-3 QC Sample: L1317704-04 Client ID: SA71-SD-13-002-091013						
Antimony, Total	1.62	1.93	mg/kg	17		20
Total Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG635276-3 QC Sample: L1317704-06 Client ID: EB-091013-01						
Antimony, Total	0.1590J	ND	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-01
Client ID: SA71-SD-01-002-091013
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 09/10/13 10:45
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.2		%	0.100	0.100	1	-	09/11/13 09:36	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-02
Client ID: SA71-SD-11-002-091013
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 09/10/13 11:15
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	11.2		%	0.100	0.100	1	-	09/11/13 09:36	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-03
Client ID: SA71-SD-03-002-091013
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 09/10/13 11:30
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	11.0		%	0.100	0.100	1	-	09/11/13 09:36	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-04
Client ID: SA71-SD-13-002-091013
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 09/10/13 11:35
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.09		%	0.100	0.100	1	-	09/11/13 09:36	30,2540G	KB

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317704-05
Client ID: FD-091013-01
Sample Location: PLOW SHOP POND
Matrix: Soil

Date Collected: 09/10/13 11:35
Date Received: 09/10/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.37		%	0.100	0.100	1	-	09/11/13 09:36	30,2540G	KB

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG635238-1 QC Sample: L1317704-04 Client ID: SA71-SD-13-002-091013						
Solids, Total	9.09	8.48	%	7		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317704
Report Date: 09/12/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1317704-01A	Amber 100ml unpreserved	A	N/A		Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317704-02A	Amber 100ml unpreserved	A	N/A		Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317704-03A	Amber 100ml unpreserved	A	N/A		Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317704-04A	Amber 100ml unpreserved	A	N/A		Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317704-04B	Amber 100ml unpreserved	A	N/A		Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317704-04C	Amber 100ml unpreserved	A	N/A		Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317704-05A	Amber 100ml unpreserved	A	N/A		Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317704-06A	Plastic 250ml HNO3 preserved	A	<2		Y	Absent	A2-DOD-SB-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1317704
Project Number:	AC001.005	**Report Date:**	09/12/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317704
Project Number:	AC001.005	**Report Date:**	09/12/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317704
Project Number:	AC001.005	**Report Date:**	09/12/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Serial_No:09121314:28

L1317704

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193

Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/10/13

ALPHA Job #: ~~L1317732~~ RS

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 Hr TAT

Due Date: 9/11/13 Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information

☐ FAX ☒ EMAIL ☒ ADEx ☐ Add'l Deliverables

Data Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Sb by 6020

SAMPLE HANDLING

Filtration

☐ Done

☐ Not Needed

☐ Lab to do

Preservation

☐ Lab to do

(Please specify below)

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Sb by 6020	Sample Specific Comments
17704-01	SA71-SD-01-002-091013	091013	1045	SD	SL	☒	
02	SA71-SD-11-002-091013	↓	1115	↓	EF	☒	
03	SA71-SD-03-002-091013	↓	1130	↓	↓	☒	
04	SA71-SD-13-002-091013	↓	1135	↓	↓	☒	ms/msD
05	FD-091013-01	↓	1135	↓	↓	☒	
06	EB-091013-01	↓	1145	AQ	↓	☒	

Container Type	P	A	-	-	-	-	-	-	-	-	-	-	-
Preservative	C	A	-	-	-	-	-	-	-	-	-	-	-

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	09/013	[signature]	9/10/13
[signature]	9/10/13	[signature]	9/10/13 15
[signature]	9/10/13 1615	Richard Scott	9/10/13 1615
[signature]	9/11/13 0400	Mampel Dale	9/11/13 0400

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1317764
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/12/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1317764-01	SA-71-SD-07-002-091113	PLOW SHOP POND	09/11/13 09:40
L1317764-02	EB-091113-01	PLOW SHOP POND	09/11/13 10:30

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1317764
Project Number: AC001.005 **Report Date:** 09/12/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

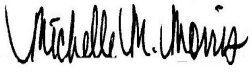
M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for antimony. All associated samples have been qualified with a "Q".

The initial calibration blank and continuous calibration blank, associated with L1317764-02, have concentrations above the LOD for antimony. Since the sample was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 09/12/13

METALS

Project Name: DEVENS
Lab Number: L1317764
Project Number: AC001.005
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317764-01
Client ID: SA-71-SD-07-002-091113
Sample Location: PLOW SHOP POND
Matrix: Soil
Percent Solids: 9%

Date Collected: 09/11/13 09:40
Date Received: 09/11/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	0.985	Q	mg/kg	0.300	0.053	2	09/11/13 11:00	09/12/13 11:12	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1317764
Project Number: AC001.005
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317764-02
Client ID: EB-091113-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/11/13 10:30
Date Received: 09/11/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	0.1336	JQ	ug/l	0.5000	0.0260	1	09/11/13 11:00	09/12/13 10:03	EPA 3020A	1,6020A	LR

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317764
Report Date: 09/12/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG635275-1										
Antimony, Total	ND		mg/kg	0.050	0.009	2	09/11/13 11:00	09/12/13 11:02	1,6020A	LR

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02 Batch: WG635276-1										
Antimony, Total	ND		ug/l	0.5000	0.0260	1	09/11/13 11:00	09/12/13 09:56	1,6020A	LR

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1317764

Report Date: 09/12/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG635275-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	106		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG635276-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	106		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG635275-4 WG635275-5 QC Sample: L1317704-04 Client ID: MS Sample												
Antimony, Total	1.62	12.6	14.0	98		14.2	99		80-120	1		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG635276-4 QC Sample: L1317704-06 Client ID: MS Sample												
Antimony, Total	0.1590J	40	42.90	107		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG635275-3 QC Sample: L1317704-04 Client ID: DUP Sample						
Antimony, Total	1.62	1.93	mg/kg	17		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG635276-3 QC Sample: L1317704-06 Client ID: DUP Sample						
Antimony, Total	0.1590J	ND	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1317764
Report Date: 09/12/13

SAMPLE RESULTS

Lab ID: L1317764-01
Client ID: SA-71-SD-07-002-091113
Sample Location: PLOW SHOP POND
Matrix: Soil
Date Collected: 09/11/13 09:40
Date Received: 09/11/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.15		%	0.100	0.100	1	-	09/11/13 13:25	30,2540G	DJ

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG635327-1 QC Sample: L1316832-01 Client ID: DUP Sample						
Solids, Total	68.8	68.3	%	1		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317764
Report Date: 09/12/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1317764-01A	Amber 100ml unpreserved	A	N/A	2.3	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1317764-02A	Plastic 250ml HNO3 preserved	A	<2	2.3	Y	Absent	A2-DOD-SB-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1317764
Project Number:	AC001.005	**Report Date:**	09/12/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317764
Project Number:	AC001.005	**Report Date:**	09/12/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317764
Project Number:	AC001.005	**Report Date:**	09/12/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL — World Class Chemistry

Date Rec'd in Lab:

ALPHA Job #: L1317764

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193

Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 HR TAT

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information — Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Sb by 6020

SAMPLE HANDLING

Filtration
☐ Done
☐ Not Needed
☐ Lab to do

Preservation
☐ Lab to do

(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Sb by 6020	TOTAL # BOTTLES
L1317764-1	SA-71-SD-07-002-091113	091113	0940	SD	EF	☒	
-2	EB-091113-01	091113	1030	AQ	EF	☒	

Container Type	P	A	-	-	-	-	-	-	-	-	-	-	
Preservative	C	A	-	-	-	-	-	-	-	-	-	-	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Eric Loy	091113 1109		9/11/13 1109
	9/11/13 11:05		9/11/13 1145
	9/11/13 1310		9/11/13 1310

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 01-01(I) (rev. 5-JAN-12)

ANALYTICAL REPORT

Lab Number:	L1318526
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/23/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1318526-01	SA-71-SD-11-003-091913	PLOW SHOP POND	09/19/13 14:15
L1318526-02	FD-091913-02	PLOW SHOP POND	09/19/13 14:15
L1318526-03	EB-091913-02	PLOW SHOP POND	09/19/13 14:30

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1318526
Project Number:	AC001.005	**Report Date:**	09/23/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

The concentration of the ICSA was above the LOD for antimony. All associated samples have been qualified with a "Q".

L1318526-03: The continuing calibration blanks have concentrations above the LOD for antimony. Since the sample concentration was below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

Project Name:	DEVENS	**Lab Number:**	L1318526
Project Number:	AC001.005	**Report Date:**	09/23/13

Case Narrative (continued)

The WG637817-4/-5 MS/MSD recoveries, performed on L1318526-01, are below the acceptance criteria for antimony (55%/38%); however, the associated LCS recovery was within criteria. No further action was taken. The parent sample (L1318526-01) should be qualified as "J" for this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/23/13

METALS

Project Name: DEVENS
Lab Number: L1318526
Project Number: AC001.005
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318526-01
Client ID: SA-71-SD-11-003-091913
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 28%

Date Collected: 09/19/13 14:15
Date Received: 09/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	5.81	Q	mg/kg	0.098	0.017	2	09/20/13 15:00	09/23/13 12:12	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1318526
Project Number: AC001.005
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318526-02
Client ID: FD-091913-02
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 29%

Date Collected: 09/19/13 14:15
Date Received: 09/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	4.50	Q	mg/kg	0.096	0.017	2	09/20/13 15:00	09/23/13 12:16	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1318526
Project Number: AC001.005
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318526-03
Client ID: EB-091913-02
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 09/19/13 14:30
Date Received: 09/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND	Q	ug/l	0.5000	0.0260	1	09/20/13 15:00	09/23/13 12:01	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1318526
Report Date: 09/23/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03 Batch: WG637815-1										
Antimony, Total	ND		ug/l	0.5000	0.0260	1	09/20/13 15:00	09/23/13 11:59	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG637817-1										
Antimony, Total	ND		mg/kg	0.050	0.009	2	09/20/13 15:00	09/23/13 12:10	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1318526

Report Date: 09/23/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG637815-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	104		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG637817-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	106		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG637815-4 QC Sample: L1318526-03 Client ID: EB-091913-02												
Antimony, Total	ND	20	20.41	102		-	-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637817-4 WG637817-5 QC Sample: L1318526-01 Client ID: SA-71-SD-11-003-091913												
Antimony, Total	5.81	3.91	7.96	**55**	Q	7.29	**38**	Q	80-120	9		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG637815-3 QC Sample: L1318526-03 Client ID: EB-091913-02						
Antimony, Total	ND	ND	ug/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637817-3 QC Sample: L1318526-01 Client ID: SA-71-SD-11-003-091913						
Antimony, Total	5.81	5.45	mg/kg	6		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318526-01
Client ID: SA-71-SD-11-003-091913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/19/13 14:15
Date Received: 09/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	28.4		%	0.100	0.100	1	-	09/20/13 11:39	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

SAMPLE RESULTS

Lab ID: L1318526-02
Client ID: FD-091913-02
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/19/13 14:15
Date Received: 09/19/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	28.6		%	0.100	0.100	1	-	09/20/13 11:39	30,2540G	DJ

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG637756-1 QC Sample: L1318526-01 Client ID: SA-71-SD-11-003-091913						
Solids, Total	28.4	28.3	%	0		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1318526
Report Date: 09/23/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1318526-01A	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1318526-01B	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1318526-01C	Amber 120ml unpreserved	A	N/A	2.3	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1318526-02A	Glass 100ml unpreserved	A	N/A	2.3	Y	Absent	A2-DOD-SB-6020T(180)
L1318526-03A	Plastic 250ml HNO3 preserved	A	<2	2.3	Y	Absent	A2-DOD-SB-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1318526
Project Number:	AC001.005	**Report Date:**	09/23/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318526
Project Number:	AC001.005	**Report Date:**	09/23/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1318526
Project Number:	AC001.005	**Report Date:**	09/23/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1318526

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Report Information

☐ FAX ☒ EMAIL ☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 HR TAT

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Sb by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Sb by 6020	Sample Specific Comments	TOTAL # BOTTLES
18526 01	SA-71-SD-11-008-091913	9/19/13	1415	SD	EF	☒	ms/msD	3
02	FD-091913-02	↓	1415	SD	EF	☒		1
03	~~AA~~ EB-091913-02	↓	1430	AQ	EF	☒		1

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	P	A	-	-	-	-	-	-	-	-	-	-
Preservative	C	A	-	-	-	-	-	-	-	-	-	-

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
Eric [illegible]	9/19/13	Pat [illegible]	9/19/13 1430
Pat [illegible]	9/19/13 1520	Pat [illegible]	9/20/13 730
Pat [illegible]	9/20/13 840	[illegible]	9/20/13 8:40

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1319528
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	10/03/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1319528-01	SA71-SD-VAULT-092713	PLOW SHOP POND	09/27/13 11:25
L1319528-02	SA71-SD-23B-092713	PLOW SHOP POND	09/27/13 10:20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1319528
Project Number: AC001.005 **Report Date:** 10/03/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

L1319528-01 has an elevated detection limit for antimony due to the dilution required by non-target analyte internal standard interferences encountered during analysis.

The WG640719-4/-5 MS/MSD recoveries, performed on L1319528-02, are below the acceptance criteria for antimony (0%/0%); however, the associated LCS recovery was within criteria. No further action was taken. The parent sample (L1319528-02) should be qualified as "J" for this analyte.

The WG640719-4/-5 MS/MSD RPD, performed on L1319528-02, is above the acceptance criteria for

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319528
Report Date: 10/03/13

Case Narrative (continued)

antimony (52%).
The WG640719-3 Laboratory Duplicate RPD (108%), performed on L1319528-02, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate.

Total Solids
The WG640592-1 Laboratory Duplicate RPD (32%), performed on L1319528-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 10/03/13

ORGANICS

PETROLEUM HYDROCARBONS

Project Name: DEVENS **Lab Number:** L1319528

Project Number: AC001.005 **Report Date:** 10/03/13

SAMPLE RESULTS

Lab ID:	L1319528-01 D	Date Collected:	09/27/13 11:25
Client ID:	SA71-SD-VAULT-092713	Date Received:	10/01/13
Sample Location:	PLOW SHOP POND	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	10/02/13 13:49
Analytical Date:	10/03/13 11:04		
Analyst:	AR		
Percent Solids:	37%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	5670000		ug/kg	871000	85300	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	65		40-140

Project Name: DEVENS
Lab Number: L1319528
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID:	L1319528-02	Date Collected:	09/27/13 10:20
Client ID:	SA71-SD-23B-092713	Date Received:	10/01/13
Sample Location:	PLOW SHOP POND	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	10/02/13 13:49
Analytical Date:	10/03/13 11:04		
Analyst:	AR		
Percent Solids:	79%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	159000		ug/kg	41100	4020	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	82		40-140

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015C(M)
Analytical Date: 10/03/13 09:58
Analyst: AR

Extraction Method: EPA 3546
Extraction Date: 10/02/13 13:49

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 01-02 Batch: WG640735-1					
TPH	ND		ug/kg	32700	3200

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	95		40-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1319528

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-02 Batch: WG640735-2								
TPH	73		-		40-140	-		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	91				40-140

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG640735-3 QC Sample: L1319528-02 Client ID: SA71-SD-23B-092713												
TPH	159000	116000	240000	70		-	-		40-140	-		40

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
o-Terphenyl	88				40-140

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG640735-4 QC Sample: L1319528-02 Client ID: SA71-SD-23B-092713						
TPH	159000	160000	ug/kg	1		40

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	82		85		40-140

METALS

Project Name: DEVENS
Lab Number: L1319528
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319528-01
Client ID: SA71-SD-VAULT-092713
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 37%

Date Collected: 09/27/13 11:25
Date Received: 10/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	3.77		mg/kg	1.79	0.315	50	10/02/13 14:00	10/03/13 15:04	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319528
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319528-02
Client ID: SA71-SD-23B-092713
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 79%

Date Collected: 09/27/13 10:20
Date Received: 10/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	4.30		mg/kg	0.036	0.006	2	10/02/13 14:00	10/03/13 15:00	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319528
Report Date: 10/03/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG640719-1										
Antimony, Total	ND		mg/kg	0.050	0.009	2	10/02/13 14:00	10/03/13 14:49	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1319528

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG640719-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	108		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG640719-4 WG640719-5 QC Sample: L1319528-02 Client ID: SA71-SD-23B-092713												
Antimony, Total	4.30	1.43	2.70	**0**	Q	1.58	**0**	Q	80-120	**52**	Q	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG640719-3 QC Sample: L1319528-02 Client ID: SA71-SD-23B-092713						
Antimony, Total	4.30	1.28	mg/kg	**108**	Q	20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319528-01
Client ID: SA71-SD-VAULT-092713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/27/13 11:25
Date Received: 10/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	37.4		%	0.100	0.100	1	-	10/02/13 08:18	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319528-02
Client ID: SA71-SD-23B-092713
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/27/13 10:20
Date Received: 10/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	78.5		%	0.100	0.100	1	-	10/02/13 08:18	30,2540G	DJ

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG640592-1 QC Sample: L1319528-01 Client ID: SA71-SD-VAULT-092713						
Solids, Total	37.4	51.8	%	**32**		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319528
Report Date: 10/03/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1319528-01A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1319528-01B	Glass 100ml unpreserved	A	N/A	2.2	Y	Absent	TPH-DRO-D(14)
L1319528-02A	Glass 100ml unpreserved	A	N/A	2.2	Y	Absent	A2-DOD-SB-6020T(180)
L1319528-02B	Glass 100ml unpreserved	A	N/A	2.2	Y	Absent	TPH-DRO-D(14)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1319528
Project Number:	AC001.005	**Report Date:**	10/03/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319528
Project Number:	AC001.005	**Report Date:**	10/03/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319528
Project Number:	AC001.005	**Report Date:**	10/03/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

MANSFIELD CHAIN OF CUSTODY

PAGE 3 OF 3

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1319528

Client Information

Client: Sovereign Consulting Inc.
Address: 4 OPEN SQUARE WAY
HOLYOKE MA
Phone: 413-540-0650
Fax:
Email: RLEARY@SOVCON.COM
☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: DEVENS
Project Location: PLOW SHOP POND
Project #: AC001.005
Project Manager: RACHEL LEARY
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)
Due Date: Time: 48 HR TAT

Report Information — Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Other Project Specific Requirements/Comments/Detection Limits:

☐ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID	Sample ID	Collection		Sample	Sampler's	Total Sb by 6020A	TPH											
L1319528-1	SA71-SD-VAULT-092713B	9/27/13	1125	SD	WB/RL	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
-2	SA71-SD-23B-092713	9/27/13	1020	SD	WB/RL	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
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						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Container Type						P	P	-	-	-	-	-	-	-	-	-	-	
Preservative						A	A	-	-	-	-	-	-	-	-	-	-	

Relinquished By:	Date/Time	Received By:	Date/Time
	9/27/13 11:30	SovCon Cooler WJB	9/27/13 11:30
	10/1/13		10-1-13 16:00
	10-1-13 16:40		10/1/13 1640
	10/2/13 04:00	Mansfield Lab	10/2/13 04:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 101-09(I-NJ) (rev. 5-JAN-12)

MANSFIELD CHAIN OF CUSTODY

PAGE 3 OF 3

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 10/1/13

ALPHA Job #: L1319528

Report Information ☐ FAX ☒ ADEx

Data Deliverables ☒ EMAIL ☐ Add'l Deliverables

Billing Information ☒ Same as Client info PO #:

Regulatory Requirements/Report Limits
State/Fed Program | Criteria

Client Information
Client: Sovereign Consulting Inc.
Address: 4 OPEN SQUARE WAY
HOLYOKE MA
Phone: 413-540-0650
Fax:
Email: RLEARY@SOVCON.COM
☐ These samples have been Previously analyzed by Alpha

Project Information
Project Name: DEVENS
Project Location: PLOW SHOP POND
Project #: AC001.005
Project Manager: RACHEL LEARY
ALPHA Quote #:

Turn-Around Time
☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)
Due Date: 10/3/13 Time: 48 HR TAT

Other Project Specific Requirements/Comments/Detection Limits:

☐ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

ALPHA Lab ID	Sample ID	Collection		Sample	Sampler's	~~Total Cr by 6020~~	TPH											Sample Specific Comments
L1319528-1	SA71-SD-VAULT-092713	9/27/13	1125	SD	WB/RL	☑	☑											
-2	SA71-SD-23B-092713	9/27/13	1020	SD	WB/RL	☑	☑											
Container Type						P	P											
Preservative						A	A											

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	9/27/13 11:30	SovCon cooler WTB	9/27/13 11:30
[signature]	10/1/13	[signature]	10-1-13 16:00
[signature]	10-1-13 16:40	[signature]	10/1/13 16:40
[signature]	10/2/13 04:00	Mansfield lab	10/2/13 04:00
[signature]	10/2/13 0827	[signature]	10/2/13 1112
[signature]	10/2/13 1156	[signature]	10/2/13 1150

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 101-09(HJ) (rev. 5-JAN-12)

ANALYTICAL REPORT

Lab Number:	L1319814
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	10/07/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1319814-01	RC-SD-06-001-100413	Not Specified	10/04/13 11:30
L1319814-02	RC-SD-07-001-100413	Not Specified	10/04/13 11:35
L1319814-03	RC-SD-08-001-100413	Not Specified	10/04/13 11:40
L1319814-04	RC-SD-11-001-100413	Not Specified	10/04/13 11:45
L1319814-05	RC-SD-12-001-100413	Not Specified	10/04/13 11:50
L1319814-06	RC-SD-17-001-100413	Not Specified	10/04/13 11:55
L1319814-07	EB-100413-001	Not Specified	10/04/13 12:00
L1319814-08	SA71-SD-23-001-100413	Not Specified	10/04/13 11:35
L1319814-09	SA71-SD-22-001-100413	Not Specified	10/04/13 11:30

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1319814
Project Number: AC001.005 **Report Date:** 10/07/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319814-01 through -06: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

L1319814-07: The initial calibration blank and continuing calibration blank have concentrations above the

Project Name:	DEVENS	**Lab Number:**	L1319814
Project Number:	AC001.005	**Report Date:**	10/07/13

Case Narrative (continued)

reporting limit for arsenic. Since the samples were below the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

The WG641402-5 MSD recovery, performed on L1319814-08, is below the acceptance criteria for antimony (34%); however, the associated LCS recovery was within criteria. No further action was taken. The parent sample (L1319814-08) should be qualified as "J" for this analyte.

The WG641402-4/-5 MS/MSD RPD, performed on L1319814-08, is above the acceptance criteria for antimony (21%).

The WG641402-3 Laboratory Duplicate RPD, performed on L1319814-08, is outside the acceptance criteria for antimony (101%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 10/07/13

METALS

Project Name: DEVENS
Lab Number: L1319814
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-01
Client ID: RC-SD-06-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/04/13 11:30
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	399	Q	mg/kg	0.278	0.034	2	10/04/13 17:00	10/07/13 11:11	EPA 3050B	1,6020A	PD

N/A

Project Name:	DEVENS	**Lab Number:**	L1319814
Project Number:	AC001.005	**Report Date:**	10/07/13

SAMPLE RESULTS

Lab ID:	L1319814-02	Date Collected:	10/04/13 11:35
Client ID:	RC-SD-07-001-100413	Date Received:	10/04/13
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Sediment		
Percent Solids:	10%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	128	Q	mg/kg	0.258	0.032	2	10/04/13 17:00	10/07/13 11:11	EPA 3050B	1,6020A	PD

N/A

Project Name: DEVENS
Lab Number: L1319814
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-03
Client ID: RC-SD-08-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 10%

Date Collected: 10/04/13 11:40
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	98.0	Q	mg/kg	0.268	0.033	2	10/04/13 17:00	10/07/13 11:14	EPA 3050B	1,6020A	PD

N/A

Project Name:	DEVENS	**Lab Number:**	L1319814
Project Number:	AC001.005	**Report Date:**	10/07/13

SAMPLE RESULTS

Lab ID:	L1319814-04	Date Collected:	10/04/13 11:45
Client ID:	RC-SD-11-001-100413	Date Received:	10/04/13
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Sediment		
Percent Solids:	11%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	65.2	Q	mg/kg	0.269	0.033	2	10/04/13 17:00	10/07/13 11:15	EPA 3050B	1,6020A	PD

N/A

Project Name: DEVENS
Lab Number: L1319814
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-05
Client ID: RC-SD-12-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 11%

Date Collected: 10/04/13 11:50
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	78.3	Q	mg/kg	0.259	0.032	2	10/04/13 17:00	10/07/13 11:16	EPA 3050B	1,6020A	PD

N/A

Project Name: DEVENS
Lab Number: L1319814
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-06
Client ID: RC-SD-17-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 9%

Date Collected: 10/04/13 11:55
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	113	Q	mg/kg	0.284	0.035	2	10/04/13 17:00	10/07/13 11:16	EPA 3050B	1,6020A	PD

N/A

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-07
Client ID: EB-100413-001
Sample Location: Not Specified
Matrix: Water
Date Collected: 10/04/13 12:00
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	0.1185	J	ug/l	0.5000	0.0260	1		10/07/13 11:56	EPA 3020A	1,6020A	PD
Arsenic, Total	0.1907	JQ	ug/l	0.5000	0.0850	1	10/04/13 16:40	10/07/13 10:32	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319814
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-08
Client ID: SA71-SD-23-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 91%

Date Collected: 10/04/13 11:35
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	2.64		mg/kg	0.035	0.006	2	10/04/13 17:00	10/07/13 12:06	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319814
Project Number: AC001.005
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-09
Client ID: SA71-SD-22-001-100413
Sample Location: Not Specified
Matrix: Sediment
Percent Solids: 74%

Date Collected: 10/04/13 11:30
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	5.98		mg/kg	0.042	0.007	2	10/04/13 17:00	10/07/13 12:10	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319814
Report Date: 10/07/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 07 Batch: WG641398-1										
Arsenic, Total	0.1797	J	ug/l	0.5000	0.0850	1	10/04/13 16:40	10/07/13 10:27	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 07 Batch: WG641399-1										
Antimony, Total	ND		ug/l	0.5000	0.0260	1	10/04/13 16:40	10/07/13 11:54	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-06 Batch: WG641401-1										
Arsenic, Total	0.023	J	mg/kg	0.050	0.006	2	10/04/13 17:00	10/07/13 10:59	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 08-09 Batch: WG641402-1										
Antimony, Total	ND		mg/kg	0.050	0.009	2	10/04/13 17:00	10/07/13 12:05	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 07 Batch: WG641398-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	105		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 07 Batch: WG641399-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	104		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG641401-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	104		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 08-09 Batch: WG641402-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	110		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641398-4 QC Sample: L1319814-07 Client ID: EB-100413-001												
Arsenic, Total	0.1907J	500	501.1	100		-	-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641399-4 QC Sample: L1319814-07 Client ID: EB-100413-001												
Antimony, Total	0.1185J	40	42.83	107		-	-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641401-4 WG641401-5 QC Sample: L1319783-01 Client ID: MS Sample												
Arsenic, Total	221.	214	434	99		427	96		80-120	2		20
Total Metals - Mansfield Lab Associated sample(s): 08-09 QC Batch ID: WG641402-4 WG641402-5 QC Sample: L1319814-08 Client ID: SA71-SD-23-001-100413												
Antimony, Total	2.64	1.41	3.85	86		3.12	**34**	Q	80-120	**21**	Q	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641398-3 QC Sample: L1319814-07 Client ID: EB-100413-001						
Arsenic, Total	0.1907J	0.1441J	ug/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG641399-3 QC Sample: L1319814-07 Client ID: EB-100413-001						
Antimony, Total	0.1185J	ND	ug/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG641401-3 QC Sample: L1319783-01 Client ID: DUP Sample						
Arsenic, Total	221.	224	mg/kg	1		20
Total Metals - Mansfield Lab Associated sample(s): 08-09 QC Batch ID: WG641402-3 QC Sample: L1319814-08 Client ID: SA71-SD-23-001-100413						
Antimony, Total	2.64	8.04	mg/kg	**101**	Q	20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-01
Client ID: RC-SD-06-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:30
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.0		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-02
Client ID: RC-SD-07-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:35
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.4		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-03
Client ID: RC-SD-08-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:40
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.3		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-04
Client ID: RC-SD-11-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:45
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	11.2		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-05
Client ID: RC-SD-12-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:50
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	10.8		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-06
Client ID: RC-SD-17-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:55
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	9.37		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-08
Client ID: SA71-SD-23-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:35
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	91.3		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

SAMPLE RESULTS

Lab ID: L1319814-09
Client ID: SA71-SD-22-001-100413
Sample Location: Not Specified
Matrix: Sediment

Date Collected: 10/04/13 11:30
Date Received: 10/04/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	74.4		%	0.100	0.100	1	-	10/07/13 13:00	30,2540G	JW

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-06,08-09 QC Batch ID: WG641760-1 QC Sample: L1319814-01 Client ID: RC-SD-06-001-100413						
Solids, Total	10.0	10.2	%	2		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319814
Report Date: 10/07/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1319814-01A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319814-02A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319814-03A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319814-04A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319814-05A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319814-06A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319814-07A	Plastic 250ml HNO3 preserved	A	<2	2.2	Y	Absent	A2-DOD-SB-6020T(180),A2-DOD-AS-6020T(180)
L1319814-08A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1319814-09A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1319814
Project Number:	AC001.005	**Report Date:**	10/07/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319814
Project Number:	AC001.005	**Report Date:**	10/07/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319814
Project Number:	AC001.005	**Report Date:**	10/07/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

MANSFIELD CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL
World Class Chemistry

Westborough, MA
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA
TEL: 508-822-9300
FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1319814

Project Information

Project Name: DEVENS

Project Location:

Project #: AC001.005

Project Manager: RACHEL LEARY

ALPHA Quote #:

Report Information

☐ FAX
☒ ADEx

Data Deliverables

☒ EMAIL
☐ Add'l Deliverables

Billing Information

☒ Same as Client info

PO #:

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

Client Information

Client: Sovereign Consulting Inc.
Address: 4 OPEN SQUARE WAY
HOLYOKE MA
Phone: 413-540-0650
Fax:
Email: RLEARY@SOVCON.COM

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Due Date: 10/7/13 Time: 1700

Other Project Specific Requirements/Comments/Detection Limits:

☐ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID	Sample ID	Collection		Sample	Sampler's	Total Arsenic by 6020A	Total Antimony by 6020A											Sample Specific Comments	TOTAL # BOTTLES
19814 01	RC-SD-06-001-100413	10-04-13	1130	SD	EF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
02	RC-SD-07-001-100413	↓	1135	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
03	RC-SD-08-001-100413	↓	1140	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
04	RC-SD-11-001-100413	↓	1145	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
05	RC-SD-12-001-100413	↓	1150	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
06	RC-SD-17-001-100413	↓	1155	↓	↓	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
07	EB-100413-001	↓	1200	AQ	↓	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
09 ~~08~~	SA71-SD-22-001-100413		11:30	SD	RBL	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
08 ~~09~~	SA71-SD-23-001-100413		11:35	3D	RBL	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
KL 10/4/13						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
					Container Type	P	A	-	-	-	-	-	-	-	-	-	-		
					Preservative	C	A	-	-	-	-	-	-	-	-	-	-		

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	10-4-13	[signature]	10/4/13 1220
[signature]	10/4/13 1305	[signature]	10/4/13 1315
[signature]	10/4/13 1442	[signature]	10/4/13 14:42

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 101-09(I-NJ)
(rev. 5-JAN-12)

ANALYTICAL REPORT

Lab Number:	L1320192
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	10/10/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1320192-01	SA-71-SD-24-001-100913	PLOW SHOP POND	10/09/13 08:55
L1320192-02	SA-71-SD-23-002-100913	PLOW SHOP POND	10/09/13 09:05
L1320192-03	SA-71-SD-22-002-100913	PLOW SHOP POND	10/09/13 09:10
L1320192-04	SA-71-SD-21-001-100913	PLOW SHOP POND	10/09/13 09:20
L1320192-05	SA-71-SD-20-001-100913	PLOW SHOP POND	10/09/13 09:25
L1320192-06	SA-71-SD-19-001-100913	PLOW SHOP POND	10/09/13 09:45
L1320192-07	FD-100913-01	PLOW SHOP POND	10/09/13 08:55
L1320192-08	EB-100913-01	PLOW SHOP POND	10/09/13 09:30

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1320192
Project Number: AC001.005 **Report Date:** 10/10/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Sample Receipt

The samples were received at the laboratory above the required temperature range. The samples were transported to the laboratory in a cooler with ice and delivered directly from the sampling site.

Metals

The WG642617-4/-5 MS/MSD recoveries, performed on L1320192-01, are below the acceptance criteria for antimony (32%/44%); however, the associated LCS recovery was within criteria. No further action was taken.

Project Name:	DEVENS	**Lab Number:**	L1320192
Project Number:	AC001.005	**Report Date:**	10/10/13

Case Narrative (continued)

The parent sample (L1320192-01) should be qualified as "J" for this analyte.

The WG642617-3 Laboratory Duplicate RPD, performed on L1320192-01, is outside the acceptance criteria for antimony (36%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the Laboratory Duplicate.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 10/10/13

METALS

Project Name: DEVENS
Lab Number: L1320192
Project Number: AC001.005
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-01
Client ID: SA-71-SD-24-001-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 71%

Date Collected: 10/09/13 08:55
Date Received: 10/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	1.70		mg/kg	0.038	0.007	2	10/09/13 16:41	10/10/13 16:00	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1320192
Project Number: AC001.005
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-02
Client ID: SA-71-SD-23-002-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 73%

Date Collected: 10/09/13 09:05
Date Received: 10/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	3.41		mg/kg	0.039	0.007	2	10/09/13 16:41	10/10/13 16:04	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1320192
Project Number: AC001.005
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-03
Client ID: SA-71-SD-22-002-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 70%

Date Collected: 10/09/13 09:10
Date Received: 10/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	6.04		mg/kg	0.036	0.006	2	10/09/13 16:41	10/10/13 16:05	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1320192
Project Number: AC001.005
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-04
Client ID: SA-71-SD-21-001-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 67%

Date Collected: 10/09/13 09:20
Date Received: 10/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	7.88		mg/kg	0.041	0.007	2	10/09/13 16:41	10/10/13 16:06	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1320192
Project Number: AC001.005
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-05
Client ID: SA-71-SD-20-001-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 76%

Date Collected: 10/09/13 09:25
Date Received: 10/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	46.3		mg/kg	0.352	0.062	20	10/09/13 16:41	10/10/13 16:08	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1320192
Project Number: AC001.005
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-06
Client ID: SA-71-SD-19-001-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 56%

Date Collected: 10/09/13 09:45
Date Received: 10/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	6.22		mg/kg	0.048	0.008	2	10/09/13 16:41	10/10/13 16:09	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1320192
Project Number: AC001.005
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-07
Client ID: FD-100913-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 69%

Date Collected: 10/09/13 08:55
Date Received: 10/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	1.20		mg/kg	0.037	0.007	2	10/09/13 16:41	10/10/13 16:10	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1320192
Project Number: AC001.005
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-08
Client ID: EB-100913-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 10/09/13 09:30
Date Received: 10/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		ug/l	0.5000	0.0260	1	10/09/13 16:41	10/10/13 15:50	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1320192
Report Date: 10/10/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 08 Batch: WG642615-1										
Antimony, Total	ND		ug/l	0.5000	0.0260	1	10/09/13 16:41	10/10/13 15:49	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-07 Batch: WG642617-1										
Antimony, Total	ND		mg/kg	0.050	0.009	2	10/09/13 16:41	10/10/13 15:58	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1320192

Report Date: 10/10/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 08 Batch: WG642615-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	101		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-07 Batch: WG642617-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	100		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 08 QC Batch ID: WG642615-4 QC Sample: L1320192-08 Client ID: EB-100913-01												
Antimony, Total	ND	10	10.05	100		-	-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG642617-4 WG642617-5 QC Sample: L1320192-01 Client ID: SA-71-SD-24-001-100913												
Antimony, Total	1.70	1.52	2.19	**32**	Q	2.36	**44**	Q	80-120	7		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 08 QC Batch ID: WG642615-3 QC Sample: L1320192-08 Client ID: EB-100913-01						
Antimony, Total	ND	ND	ug/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG642617-3 QC Sample: L1320192-01 Client ID: SA-71-SD-24-001-100913						
Antimony, Total	1.70	1.18	mg/kg	**36**	Q	20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-01
Client ID: SA-71-SD-24-001-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/09/13 08:55
Date Received: 10/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	71.3		%	0.100	0.100	1	-	10/09/13 16:33	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-02
Client ID: SA-71-SD-23-002-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/09/13 09:05
Date Received: 10/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	73.0		%	0.100	0.100	1	-	10/09/13 16:33	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-03
Client ID: SA-71-SD-22-002-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/09/13 09:10
Date Received: 10/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	70.4		%	0.100	0.100	1	-	10/09/13 16:33	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-04
Client ID: SA-71-SD-21-001-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/09/13 09:20
Date Received: 10/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	67.0		%	0.100	0.100	1	-	10/09/13 16:33	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-05
Client ID: SA-71-SD-20-001-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/09/13 09:25
Date Received: 10/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	76.3		%	0.100	0.100	1	-	10/09/13 16:33	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-06
Client ID: SA-71-SD-19-001-100913
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/09/13 09:45
Date Received: 10/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	56.0		%	0.100	0.100	1	-	10/09/13 16:33	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

SAMPLE RESULTS

Lab ID: L1320192-07
Client ID: FD-100913-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/09/13 08:55
Date Received: 10/09/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	68.9		%	0.100	0.100	1	-	10/09/13 16:33	30,2540G	JW

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG642600-1 QC Sample: L1320192-01 Client ID: SA-71-SD-24-001-100913						
Solids, Total	71.3	68.0	%	5		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320192
Report Date: 10/10/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1320192-01A	Amber 100ml unpreserved	A	N/A	12.5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1320192-01B	Amber 100ml unpreserved	A	N/A	12.5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1320192-01C	Amber 100ml unpreserved	A	N/A	12.5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1320192-02A	Amber 100ml unpreserved	A	N/A	12.5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1320192-03A	Amber 100ml unpreserved	A	N/A	12.5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1320192-04A	Amber 100ml unpreserved	A	N/A	12.5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1320192-05A	Amber 100ml unpreserved	A	N/A	12.5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1320192-06A	Amber 100ml unpreserved	A	N/A	12.5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1320192-07A	Amber 100ml unpreserved	A	N/A	12.5	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1320192-08A	Plastic 250ml HNO3 preserved	A	<2	12.5	Y	Absent	A2-DOD-SB-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1320192
Project Number:	AC001.005	**Report Date:**	10/10/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1320192
Project Number:	AC001.005	**Report Date:**	10/10/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1320192
Project Number:	AC001.005	**Report Date:**	10/10/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE OF

ALPHA ANALYTICAL World Class Chemistry

Westborough, MA
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA
TEL: 508-822-9300
FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1320192

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Report Information

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Data Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

24 HR TAT

Due Date: Time:

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total SB by 6020												Sample Specific Comments
20192 01	SA-71-SD-24-001-100913	10/9/13	08:55	SD	BAS+EEF	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	MS / MSD
02	SA-71-SD-23-002-100913		09:05			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
03	SA-71-SD-22-002-100913		09:10			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
04	SA-71-SD-21-001-100913		09:20			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
05	SA-71-SD-20-001-100913		09:25			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
06	SA-71-SD-19-001-100913		09:45			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
07	FD-100913-01		08:55			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
08	EB-100913-01		09:30	AQ		☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	P	A	-	-	-	-	-	-	-	-	-	-
Preservative	C	A	-	-	-	-	-	-	-	-	-	-

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I)
(rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	100913	[signature]	10/9/13 1318
[signature]	10/9/13 13:30	[signature]	10/9/13 1370
[signature]	10/9/13 1500	[signature]	10/9/13 15:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1320452
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	10/15/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1320452-01	SA71-SD-20-002-101113	PLOW SHOP POND	10/11/13 11:30
L1320452-02	FD-101113-01	PLOW SHOP POND	10/11/13 11:30
L1320452-03	EB-101113-01	PLOW SHOP POND	10/11/13 11:45

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1320452
Report Date: 10/15/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The WG643632-4/-5 MS/MSD recoveries for antimony (542%/415%), performed on L1320452-01, do not apply because the sample concentration is greater than four times the spike amount added.

The WG643632-3 Laboratory Duplicate RPD, performed on L1320452-01, is outside the acceptance criteria for antimony (22%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate. The parent sample (L1320452-01) should be qualified as "J" for this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 10/15/13

METALS

Project Name: DEVENS
Lab Number: L1320452
Project Number: AC001.005
Report Date: 10/15/13

SAMPLE RESULTS

Lab ID: L1320452-01
Client ID: SA71-SD-20-002-101113
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 65%

Date Collected: 10/11/13 11:30
Date Received: 10/11/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	11.0		mg/kg	0.247	0.044	10	10/14/13 10:00	10/15/13 17:00	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1320452
Project Number: AC001.005
Report Date: 10/15/13

SAMPLE RESULTS

Lab ID: L1320452-02
Client ID: FD-101113-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 63%

Date Collected: 10/11/13 11:30
Date Received: 10/11/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	22.9		mg/kg	0.252	0.044	10	10/14/13 10:00	10/15/13 17:04	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1320452
Project Number: AC001.005
Report Date: 10/15/13

SAMPLE RESULTS

Lab ID: L1320452-03
Client ID: EB-101113-01
Sample Location: PLOW SHOP POND
Matrix: Water

Date Collected: 10/11/13 11:45
Date Received: 10/11/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	0.1244	J	ug/l	0.5000	0.0260	1	10/14/13 10:00	10/15/13 16:37	EPA 3020A	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1320452
Report Date: 10/15/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG643632-1										
Antimony, Total	ND		mg/kg	0.050	0.009	2	10/14/13 10:00	10/15/13 16:45	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03 Batch: WG643633-1										
Antimony, Total	ND		ug/l	0.5000	0.0260	1	10/14/13 10:00	10/15/13 16:35	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1320452

Report Date: 10/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG643632-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	110		-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG643633-2 SRM Lot Number: A2METSPIKE								
Antimony, Total	106		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG643632-4 WG643632-5 QC Sample: L1320452-01 Client ID: SA71-SD-20-002-101113												
Antimony, Total	11.0	1.97	21.7	**542**	Q	18.7	**415**	Q	80-120	15		20
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG643633-4 QC Sample: L1320452-03 Client ID: EB-101113-01												
Antimony, Total	0.1244J	40	43.57	109		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG643632-3 QC Sample: L1320452-01 Client ID: SA71-SD-20-002-101113						
Antimony, Total	11.0	8.79	mg/kg	**22**	Q	20
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG643633-3 QC Sample: L1320452-03 Client ID: EB-101113-01						
Antimony, Total	0.1244J	ND	ug/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

SAMPLE RESULTS

Lab ID: L1320452-01
Client ID: SA71-SD-20-002-101113
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/11/13 11:30
Date Received: 10/11/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	65.4		%	0.100	0.100	1	-	10/12/13 09:24	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

SAMPLE RESULTS

Lab ID: L1320452-02
Client ID: FD-101113-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/11/13 11:30
Date Received: 10/11/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	63.2		%	0.100	0.100	1	-	10/12/13 09:24	30,2540G	JW

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG643434-1 QC Sample: L1320452-01 Client ID: SA71-SD-20-002-101113						
Solids, Total	65.4	65.6	%	0		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1320452
Report Date: 10/15/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1320452-01A	Glass 100ml unpreserved	A	N/A	3.4	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1320452-02A	Glass 100ml unpreserved	A	N/A	3.4	Y	Absent	A2-TS(7),A2-DOD-SB-6020T(180)
L1320452-03A	Plastic 250ml HNO3 preserved	A	<2	3.4	Y	Absent	A2-DOD-SB-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1320452
Project Number:	AC001.005	**Report Date:**	10/15/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1320452
Project Number:	AC001.005	**Report Date:**	10/15/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1320452
Project Number:	AC001.005	**Report Date:**	10/15/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

CHAIN OF CUSTODY

PAGE | OF |

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 10/11/13

ALPHA Job #: L1320452

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED) 24hr
Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information — Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total Sb 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials
20452.1	SA71-SD-20-002-101113	10/11/13	11:30	sed	WJB
2	FD-101113-01	10/11/13	11:30	sed	WJB
3	EB-101113-01	10/11/13	11:45	diH_2O	WJB

Container Type
Preservative

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
	10/11/13 1445		10/11/13 1445
	10/12/13 05:00	Mansfield Lab	10/12/13 05:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

APPENDIX F

Waste Characterization Analytical Data

(See CD Included Separately)

ANALYTICAL REPORT

Lab Number:	L1311337
Client:	Sovereign Consulting 16 Chestnut Street Suite 520 Foxborough, MA 02035
ATTN:	Rachel Leary
Phone:	(508) 339-3200
Project Name:	FORT DEVENS
Project Number:	AC001.005
Report Date:	07/01/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311337
Report Date: 07/01/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1311337-01	RC-WC-061713-08	DEVENS, MA	06/17/13 14:10
L1311337-02	RC-WC-061713-01	DEVENS, MA	06/17/13 11:20
L1311337-03	RC-WC-061713-02	DEVENS, MA	06/17/13 11:40
L1311337-04	RC-WC-061713-04	DEVENS, MA	06/17/13 12:35
L1311337-05	RC-WC-061713-05	DEVENS, MA	06/17/13 13:10
L1311337-06	RC-WC-061713-06	DEVENS, MA	06/17/13 13:30
L1311337-07	RC-WC-061713-07	DEVENS, MA	06/17/13 13:45

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311337
Report Date: 07/01/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

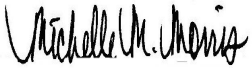
In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 07/01/13

METALS

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311337
Report Date: 07/01/13

SAMPLE RESULTS

Lab ID: L1311337-01
Client ID: RC-WC-061713-08
Sample Location: DEVENS, MA
Matrix: Sediment
Date Collected: 06/17/13 14:10
Date Received: 06/17/13
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 06/25/13 16:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	06/26/13 10:58	06/27/13 12:10	EPA 3015	1,6010C	MG
Chromium, TCLP	ND		mg/l	0.20	--	1	06/26/13 10:58	06/27/13 12:10	EPA 3015	1,6010C	MG
Mercury, TCLP	ND		mg/l	0.0010	--	1	06/28/13 15:40	07/01/13 08:49	EPA 7470A	1,7470A	JH

Project Name: FORT DEVENS
Lab Number: L1311337
Project Number: AC001.005
Report Date: 07/01/13

SAMPLE RESULTS

Lab ID: L1311337-02
Client ID: RC-WC-061713-01
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 11:20
Date Received: 06/17/13
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 06/25/13 16:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	06/26/13 10:58	06/27/13 13:52	EPA 3015	1,6010C	MG
Chromium, TCLP	ND		mg/l	0.20	--	1	06/26/13 10:58	06/27/13 13:52	EPA 3015	1,6010C	MG

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311337
Report Date: 07/01/13

SAMPLE RESULTS

Lab ID: L1311337-03
Client ID: RC-WC-061713-02
Sample Location: DEVENS, MA
Matrix: Sediment
Date Collected: 06/17/13 11:40
Date Received: 06/17/13
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 06/25/13 16:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	06/26/13 10:58	06/27/13 15:35	EPA 3015	1,6010C	MG
Chromium, TCLP	ND		mg/l	0.20	--	1	06/26/13 10:58	06/27/13 15:35	EPA 3015	1,6010C	MG

Project Name: FORT DEVENS
Lab Number: L1311337
Project Number: AC001.005
Report Date: 07/01/13

SAMPLE RESULTS

Lab ID: L1311337-04
Client ID: RC-WC-061713-04
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 12:35
Date Received: 06/17/13
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 06/25/13 16:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Chromium, TCLP	ND		mg/l	0.20	--	1	06/26/13 10:58	06/27/13 14:35	EPA 3015	1,6010C	MG

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311337
Report Date: 07/01/13

SAMPLE RESULTS

Lab ID: L1311337-05
Client ID: RC-WC-061713-05
Sample Location: DEVENS, MA
Matrix: Sediment
Date Collected: 06/17/13 13:10
Date Received: 06/17/13
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 06/25/13 16:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	06/26/13 10:58	06/27/13 14:38	EPA 3015	1,6010C	MG
Chromium, TCLP	ND		mg/l	0.20	--	1	06/26/13 10:58	06/27/13 14:38	EPA 3015	1,6010C	MG

Project Name: FORT DEVENS
Lab Number: L1311337
Project Number: AC001.005
Report Date: 07/01/13

SAMPLE RESULTS

Lab ID: L1311337-06
Client ID: RC-WC-061713-06
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 13:30
Date Received: 06/17/13
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 06/25/13 16:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Chromium, TCLP	ND		mg/l	0.20	--	1	06/26/13 10:58	06/27/13 14:49	EPA 3015	1,6010C	MG

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311337
Report Date: 07/01/13

SAMPLE RESULTS

Lab ID: L1311337-07
Client ID: RC-WC-061713-07
Sample Location: DEVENS, MA
Matrix: Sediment
Date Collected: 06/17/13 13:45
Date Received: 06/17/13
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 06/25/13 16:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	06/26/13 10:58	06/27/13 14:05	EPA 3015	1,6010C	KL
Chromium, TCLP	ND		mg/l	0.20	--	1	06/26/13 10:58	06/27/13 14:05	EPA 3015	1,6010C	KL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311337
Report Date: 07/01/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01-07 Batch: WG617718-1										
Arsenic, TCLP	ND		mg/l	1.0	--	1	06/26/13 10:58	06/27/13 11:32	1,6010C	MG
Chromium, TCLP	ND		mg/l	0.20	--	1	06/26/13 10:58	06/27/13 11:32	1,6010C	MG

Prep Information

Digestion Method: EPA 3015
TCLP/SPLP Extraction Date: 06/25/13 16:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG618437-1										
Mercury, TCLP	ND		mg/l	0.0010	--	1	06/28/13 15:40	07/01/13 08:45	1,7470A	JH

Prep Information

Digestion Method: EPA 7470A
TCLP/SPLP Extraction Date: 06/25/13 16:20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311337

Report Date: 07/01/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-07 Batch: WG617718-2								
Arsenic, TCLP	108		-		75-125	-		20
Chromium, TCLP	110		-		75-125	-		20
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG618437-2								
Mercury, TCLP	97		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311337
Report Date: 07/01/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG617718-4 QC Sample: L1311337-01 Client ID: RC-WC-061713-08												
Arsenic, TCLP	ND	1.2	1.4	117		-	-		75-125	-		20
Chromium, TCLP	ND	2	2.0	100		-	-		75-125	-		20
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01 QC Batch ID: WG618437-4 QC Sample: L1311337-01 Client ID: RC-WC-061713-08												
Mercury, TCLP	ND	0.025	0.0267	107		-	-		70-130	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311337
Report Date: 07/01/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG617718-3 QC Sample: L1311337-01 Client ID: RC-WC-061713-08						
Arsenic, TCLP	ND	ND	mg/l	NC		20
Chromium, TCLP	ND	ND	mg/l	NC		20
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01 QC Batch ID: WG618437-3 QC Sample: L1311337-01 Client ID: RC-WC-061713-08						
Mercury, TCLP	ND	ND	mg/l	NC		20

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311337
Report Date: 07/01/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1311337-01A	Amber 250ml unpreserved	A	N/A	3.7	Y	Absent	-
L1311337-01X	Plastic 250ml HNO3 preserved spl	A	<2	3.7	Y	Absent	AS-CI(180),HG-C(28),CR-CI(180)
L1311337-02A	Amber 250ml unpreserved	A	N/A	3.7	Y	Absent	-
L1311337-02X	Plastic 250ml HNO3 preserved spl	A	<2	3.7	Y	Absent	AS-CI(180),CR-CI(180)
L1311337-03A	Amber 250ml unpreserved	A	N/A	3.7	Y	Absent	-
L1311337-03X	Plastic 250ml HNO3 preserved spl	A	<2	3.7	Y	Absent	AS-CI(180),CR-CI(180)
L1311337-04A	Amber 250ml unpreserved	A	N/A	3.7	Y	Absent	-
L1311337-04X	Plastic 250ml HNO3 preserved spl	A	<2	3.7	Y	Absent	CR-CI(180)
L1311337-05A	Amber 250ml unpreserved	A	N/A	3.7	Y	Absent	-
L1311337-05X	Plastic 250ml HNO3 preserved spl	A	<2	3.7	Y	Absent	AS-CI(180),CR-CI(180)
L1311337-06A	Amber 250ml unpreserved	A	N/A	3.7	Y	Absent	-
L1311337-06X	Plastic 250ml HNO3 preserved spl	A	<2	3.7	Y	Absent	CR-CI(180)
L1311337-07A	Amber 250ml unpreserved	A	N/A	3.7	Y	Absent	-
L1311337-07X	Plastic 250ml HNO3 preserved spl	A	<2	3.7	Y	Absent	AS-CI(180),CR-CI(180)

*Values in parentheses indicate holding time in days

Project Name:	FORT DEVENS	**Lab Number:**	L1311337
Project Number:	AC001.005	**Report Date:**	07/01/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: Data Usability Report

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Data Qualifiers

due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised June 17, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D, 9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether, Ethyl tert-butyl ether, Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE). **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, 1,3,5-Trimethylbenzene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. **EPA 8015C:** TPH. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 6/17/13

ALPHA Job #: L1333701

Serial_No:07011313:28

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: Sovereign Consulting

Address: 16 Chestnut St Suite 525
Foxboro, MA 02035

Phone: 508-339-3200

Email: RLeary@sovcon.com

Project Information

Project Name: Fort Devens

Project Location: Devens, MA

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: ~~6/24/13~~ 7/1/13

Report Information - Data Deliverables

☐ ADEx ☒ EMAIL

Billing Information

☒ Same as Client Info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods

☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)

☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)

☐ Yes ☒ No NPDES RGP

☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:

Only run TCLP if fails 20x rule.

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC: 8260	SVOC: 8270	METALS: ☐MCP 13 ☐MCP 14 ☐RCP 15	METALS: ☐RCRA	EPH: ☐Ranges & Targets	VPH: ☐Ranges & Targets	Pest	PCB	Herbicides	TCLP As	TCLP Cr	Sample Comments
~~11337-02~~ 11337-01	RC-WC-061713-01	6/17/13	1120	SE	LMS	X	X	X		X	X	X	X	X	X	X	
-03	RC-WC-061713-02		1140												X	X	
-02	RC-WC-061713-03		1210														
-04	RC-WC-061713-04		1235													X	
-05	RC-WC-061713-05		1310												X	X	
-06	RC-WC-061713-06		1330													X	
-07	RC-WC-061713-07		1345												X	X	
-08	RC-WC-061713-08		1410												X	X	+TCLP Hg
Container Type						V	A	A		A	A	A	A	A	A		
Preservative						F	A	A		A	A	A	A	A	A		

SAMPLE INFO

Filtration
☐ Field
☐ Lab to do

Preservation
☐ Lab to do

TOTAL # BOTTLES

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	6/17/13 1720	[signature]	6/17/13 1720

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1311048
Client:	Sovereign Consulting 16 Chestnut Street Suite 520 Foxborough, MA 02035
ATTN:	Rachel Leary
Phone:	(508) 339-3200
Project Name:	FORT DEVENS
Project Number:	AC001.005
Report Date:	06/26/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1311048-01	RC-WC-061713-01	DEVENS, MA	06/17/13 11:20
L1311048-02	RC-WC-061713-02	DEVENS, MA	06/17/13 11:40
L1311048-03	RC-WC-061713-03	DEVENS, MA	06/17/13 12:10
L1311048-04	RC-WC-061713-04	DEVENS, MA	06/17/13 12:35
L1311048-05	RC-WC-061713-05	DEVENS, MA	06/17/13 13:10
L1311048-06	RC-WC-061713-06	DEVENS, MA	06/17/13 13:30
L1311048-07	RC-WC-061713-07	DEVENS, MA	06/17/13 13:45
L1311048-08	RC-WC-061713-08	DEVENS, MA	06/17/13 14:10

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORT DEVENS **Lab Number:** L1311048
Project Number: AC001.005 **Report Date:** 06/26/13

Case Narrative (continued)

Sample Receipt

Several samples were found to have low percent solids values (<10%) resulting in elevated reporting limits.

Volatile Organics

L1311048-03: The internal standard (IS) response for 1,4-Dichlorobenzene-d4 (29%) and the surrogate recovery for 4-Bromofluorobenzene (149%) were outside the acceptance criteria; however, re-analysis achieved a similar result for 1,4-Dichlorobenzene-d4 (43%). The results of both analyses are reported.
L1311048-04: The internal standard (IS) response for 1,4-Dichlorobenzene-d4 (46%) was below the acceptance criteria; however, re-analysis achieved a similar result for 1,4-Dichlorobenzene-d4 (40%). The results of both analyses are reported.
L1311048-05: The internal standard (IS) response for 1,4-Dichlorobenzene-d4 (39%) and the surrogate recovery for 4-Bromofluorobenzene (132%) were outside the acceptance criteria; however, re-analysis achieved a similar result for 1,4-Dichlorobenzene-d4 (47%). The results of both analyses are reported.
L1311048-06: The internal standard (IS) response for 1,4-Dichlorobenzene-d4 (32%) and the surrogate recovery for 4-Bromofluorobenzene (141%) were outside the acceptance criteria; however, re-analysis achieved similar results for 1,4-Dichlorobenzene-d4 (47%). The results of both analyses are reported.
L1311048-07: The internal standard (IS) response for 1,4-Dichlorobenzene-d4 (47%) was outside the acceptance criteria; however, re-analysis achieved a similar result for 1,4-Dichlorobenzene-d4 (37%). The results of both analyses are reported.
L1311048-08: The internal standard (IS) response for 1,4-Dichlorobenzene-d4 (31%) and the surrogate recovery for 4-Bromofluorobenzene (131%) were outside the acceptance criteria; however, re-analysis achieved a similar result for 1,4-Dichlorobenzene-d4 (39%). The results of both analyses are reported.

PCBs

L1311048-07 has elevated detection limits due to the dilution required by matrix interferences encountered during the concentration of the sample.

Metals

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

Case Narrative (continued)

L1311048-03 has elevated detection limits for all analytes, except Mercury, due to the analytical dilution required by the sample matrix.

The WG616037-4 MS recovery, performed on L1311048-03, is below the acceptance criteria for Mercury (19%). A post digestion spike was performed with an acceptable recovery of 105%.

The WG616037-3 Laboratory Duplicate RPD, performed on L1311048-03, is outside the acceptance criteria for Mercury (94%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the Laboratory Duplicate.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cynthia McQueen

Title: Technical Director/Representative Date: 06/26/13

ORGANICS

VOLATILES

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-01	Date Collected:	06/17/13 11:20
Client ID:	RC-WC-061713-01	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment		
Analytical Method:	1,8260C		
Analytical Date:	06/18/13 12:11		
Analyst:	BN		
Percent Solids:	21%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	41	--	1
1,1-Dichloroethane	ND		ug/kg	6.2	--	1
Chloroform	ND		ug/kg	6.2	--	1
Carbon tetrachloride	ND		ug/kg	4.1	--	1
1,2-Dichloropropane	ND		ug/kg	14	--	1
Dibromochloromethane	ND		ug/kg	4.1	--	1
1,1,2-Trichloroethane	ND		ug/kg	6.2	--	1
Tetrachloroethene	ND		ug/kg	4.1	--	1
Chlorobenzene	ND		ug/kg	4.1	--	1
Trichlorofluoromethane	ND		ug/kg	21	--	1
1,2-Dichloroethane	ND		ug/kg	4.1	--	1
1,1,1-Trichloroethane	ND		ug/kg	4.1	--	1
Bromodichloromethane	ND		ug/kg	4.1	--	1
trans-1,3-Dichloropropene	ND		ug/kg	4.1	--	1
cis-1,3-Dichloropropene	ND		ug/kg	4.1	--	1
1,1-Dichloropropene	ND		ug/kg	21	--	1
Bromoform	ND		ug/kg	16	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	4.1	--	1
Benzene	4.7		ug/kg	4.1	--	1
Toluene	ND		ug/kg	6.2	--	1
Ethylbenzene	ND		ug/kg	4.1	--	1
Chloromethane	ND		ug/kg	21	--	1
Bromomethane	ND		ug/kg	8.2	--	1
Vinyl chloride	ND		ug/kg	8.2	--	1
Chloroethane	ND		ug/kg	8.2	--	1
1,1-Dichloroethene	ND		ug/kg	4.1	--	1
trans-1,2-Dichloroethene	ND		ug/kg	6.2	--	1
Trichloroethene	ND		ug/kg	4.1	--	1
1,2-Dichlorobenzene	ND		ug/kg	21	--	1
1,3-Dichlorobenzene	ND		ug/kg	21	--	1
1,4-Dichlorobenzene	ND		ug/kg	21	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-01 Date Collected: 06/17/13 11:20

Client ID: RC-WC-061713-01 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	8.2	--	1
p/m-Xylene	ND		ug/kg	8.2	--	1
o-Xylene	ND		ug/kg	8.2	--	1
Xylenes, Total	ND		ug/kg	8.2	--	1
cis-1,2-Dichloroethene	4.8		ug/kg	4.1	--	1
Dibromomethane	ND		ug/kg	41	--	1
1,4-Dichlorobutane	ND		ug/kg	41	--	1
1,2,3-Trichloropropane	ND		ug/kg	41	--	1
Styrene	ND		ug/kg	8.2	--	1
Dichlorodifluoromethane	ND		ug/kg	41	--	1
Acetone	320		ug/kg	150	--	1
Carbon disulfide	ND		ug/kg	41	--	1
2-Butanone	ND		ug/kg	41	--	1
Vinyl acetate	ND		ug/kg	41	--	1
4-Methyl-2-pentanone	ND		ug/kg	41	--	1
2-Hexanone	ND		ug/kg	41	--	1
Ethyl methacrylate	ND		ug/kg	41	--	1
Acrylonitrile	ND		ug/kg	16	--	1
Bromochloromethane	ND		ug/kg	21	--	1
Tetrahydrofuran	ND		ug/kg	82	--	1
2,2-Dichloropropane	ND		ug/kg	21	--	1
1,2-Dibromoethane	ND		ug/kg	16	--	1
1,3-Dichloropropane	ND		ug/kg	21	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	4.1	--	1
Bromobenzene	ND		ug/kg	21	--	1
n-Butylbenzene	ND		ug/kg	4.1	--	1
sec-Butylbenzene	8.9		ug/kg	4.1	--	1
tert-Butylbenzene	ND		ug/kg	21	--	1
o-Chlorotoluene	ND		ug/kg	21	--	1
p-Chlorotoluene	ND		ug/kg	21	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	21	--	1
Hexachlorobutadiene	ND		ug/kg	21	--	1
Isopropylbenzene	4.8		ug/kg	4.1	--	1
p-Isopropyltoluene	ND		ug/kg	4.1	--	1
Naphthalene	ND		ug/kg	21	--	1
n-Propylbenzene	ND		ug/kg	4.1	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	21	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	21	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	21	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-01 Date Collected: 06/17/13 11:20

Client ID: RC-WC-061713-01 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	21	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	21	--	1
Ethyl ether	ND		ug/kg	21	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	128		70-130
Dibromofluoromethane	105		70-130

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-02	Date Collected:	06/17/13 11:40
Client ID:	RC-WC-061713-02	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment		
Analytical Method:	1,8260C		
Analytical Date:	06/18/13 12:38		
Analyst:	BN		
Percent Solids:	11%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	70	--	1
1,1-Dichloroethane	ND		ug/kg	10	--	1
Chloroform	ND		ug/kg	10	--	1
Carbon tetrachloride	ND		ug/kg	7.0	--	1
1,2-Dichloropropane	ND		ug/kg	24	--	1
Dibromochloromethane	ND		ug/kg	7.0	--	1
1,1,2-Trichloroethane	ND		ug/kg	10	--	1
Tetrachloroethene	ND		ug/kg	7.0	--	1
Chlorobenzene	ND		ug/kg	7.0	--	1
Trichlorofluoromethane	ND		ug/kg	35	--	1
1,2-Dichloroethane	ND		ug/kg	7.0	--	1
1,1,1-Trichloroethane	ND		ug/kg	7.0	--	1
Bromodichloromethane	ND		ug/kg	7.0	--	1
trans-1,3-Dichloropropene	ND		ug/kg	7.0	--	1
cis-1,3-Dichloropropene	ND		ug/kg	7.0	--	1
1,1-Dichloropropene	ND		ug/kg	35	--	1
Bromoform	ND		ug/kg	28	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	7.0	--	1
Benzene	ND		ug/kg	7.0	--	1
Toluene	ND		ug/kg	10	--	1
Ethylbenzene	ND		ug/kg	7.0	--	1
Chloromethane	ND		ug/kg	35	--	1
Bromomethane	ND		ug/kg	14	--	1
Vinyl chloride	ND		ug/kg	14	--	1
Chloroethane	ND		ug/kg	14	--	1
1,1-Dichloroethene	ND		ug/kg	7.0	--	1
trans-1,2-Dichloroethene	ND		ug/kg	10	--	1
Trichloroethene	ND		ug/kg	7.0	--	1
1,2-Dichlorobenzene	ND		ug/kg	35	--	1
1,3-Dichlorobenzene	ND		ug/kg	35	--	1
1,4-Dichlorobenzene	ND		ug/kg	35	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-02 Date Collected: 06/17/13 11:40

Client ID: RC-WC-061713-02 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	14	--	1
p/m-Xylene	ND		ug/kg	14	--	1
o-Xylene	ND		ug/kg	14	--	1
Xylenes, Total	ND		ug/kg	14	--	1
cis-1,2-Dichloroethene	ND		ug/kg	7.0	--	1
Dibromomethane	ND		ug/kg	70	--	1
1,4-Dichlorobutane	ND		ug/kg	70	--	1
1,2,3-Trichloropropane	ND		ug/kg	70	--	1
Styrene	ND		ug/kg	14	--	1
Dichlorodifluoromethane	ND		ug/kg	70	--	1
Acetone	470		ug/kg	250	--	1
Carbon disulfide	ND		ug/kg	70	--	1
2-Butanone	140		ug/kg	70	--	1
Vinyl acetate	ND		ug/kg	70	--	1
4-Methyl-2-pentanone	ND		ug/kg	70	--	1
2-Hexanone	ND		ug/kg	70	--	1
Ethyl methacrylate	ND		ug/kg	70	--	1
Acrylonitrile	ND		ug/kg	28	--	1
Bromochloromethane	ND		ug/kg	35	--	1
Tetrahydrofuran	ND		ug/kg	140	--	1
2,2-Dichloropropane	ND		ug/kg	35	--	1
1,2-Dibromoethane	ND		ug/kg	28	--	1
1,3-Dichloropropane	ND		ug/kg	35	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	7.0	--	1
Bromobenzene	ND		ug/kg	35	--	1
n-Butylbenzene	ND		ug/kg	7.0	--	1
sec-Butylbenzene	ND		ug/kg	7.0	--	1
tert-Butylbenzene	ND		ug/kg	35	--	1
o-Chlorotoluene	ND		ug/kg	35	--	1
p-Chlorotoluene	ND		ug/kg	35	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	35	--	1
Hexachlorobutadiene	ND		ug/kg	35	--	1
Isopropylbenzene	ND		ug/kg	7.0	--	1
p-Isopropyltoluene	ND		ug/kg	7.0	--	1
Naphthalene	ND		ug/kg	35	--	1
n-Propylbenzene	ND		ug/kg	7.0	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	35	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	35	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	35	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-02 Date Collected: 06/17/13 11:40

Client ID: RC-WC-061713-02 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	35	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	35	--	1
Ethyl ether	ND		ug/kg	35	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	123		70-130
Dibromofluoromethane	106		70-130

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-03	Date Collected:	06/17/13 12:10
Client ID:	RC-WC-061713-03	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment		
Analytical Method:	1,8260C		
Analytical Date:	06/18/13 13:07		
Analyst:	BN		
Percent Solids:	21%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	30	--	1
1,1-Dichloroethane	ND		ug/kg	4.6	--	1
Chloroform	ND		ug/kg	4.6	--	1
Carbon tetrachloride	ND		ug/kg	3.0	--	1
1,2-Dichloropropane	ND		ug/kg	11	--	1
Dibromochloromethane	ND		ug/kg	3.0	--	1
1,1,2-Trichloroethane	ND		ug/kg	4.6	--	1
Tetrachloroethene	ND		ug/kg	3.0	--	1
Chlorobenzene	ND		ug/kg	3.0	--	1
Trichlorofluoromethane	ND		ug/kg	15	--	1
1,2-Dichloroethane	ND		ug/kg	3.0	--	1
1,1,1-Trichloroethane	ND		ug/kg	3.0	--	1
Bromodichloromethane	ND		ug/kg	3.0	--	1
trans-1,3-Dichloropropene	ND		ug/kg	3.0	--	1
cis-1,3-Dichloropropene	ND		ug/kg	3.0	--	1
1,1-Dichloropropene	ND		ug/kg	15	--	1
Bromoform	ND		ug/kg	12	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	3.0	--	1
Benzene	ND		ug/kg	3.0	--	1
Toluene	ND		ug/kg	4.6	--	1
Ethylbenzene	ND		ug/kg	3.0	--	1
Chloromethane	ND		ug/kg	15	--	1
Bromomethane	ND		ug/kg	6.1	--	1
Vinyl chloride	ND		ug/kg	6.1	--	1
Chloroethane	ND		ug/kg	6.1	--	1
1,1-Dichloroethene	ND		ug/kg	3.0	--	1
trans-1,2-Dichloroethene	ND		ug/kg	4.6	--	1
Trichloroethene	ND		ug/kg	3.0	--	1
1,2-Dichlorobenzene	ND		ug/kg	15	--	1
1,3-Dichlorobenzene	ND		ug/kg	15	--	1
1,4-Dichlorobenzene	ND		ug/kg	15	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-03 Date Collected: 06/17/13 12:10

Client ID: RC-WC-061713-03 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	6.1	--	1
p/m-Xylene	ND		ug/kg	6.1	--	1
o-Xylene	ND		ug/kg	6.1	--	1
Xylenes, Total	ND		ug/kg	6.1	--	1
cis-1,2-Dichloroethene	ND		ug/kg	3.0	--	1
Dibromomethane	ND		ug/kg	30	--	1
1,4-Dichlorobutane	ND		ug/kg	30	--	1
1,2,3-Trichloropropane	ND		ug/kg	30	--	1
Styrene	ND		ug/kg	6.1	--	1
Dichlorodifluoromethane	ND		ug/kg	30	--	1
Acetone	210		ug/kg	110	--	1
Carbon disulfide	ND		ug/kg	30	--	1
2-Butanone	52		ug/kg	30	--	1
Vinyl acetate	ND		ug/kg	30	--	1
4-Methyl-2-pentanone	ND		ug/kg	30	--	1
2-Hexanone	ND		ug/kg	30	--	1
Ethyl methacrylate	ND		ug/kg	30	--	1
Acrylonitrile	ND		ug/kg	12	--	1
Bromochloromethane	ND		ug/kg	15	--	1
Tetrahydrofuran	ND		ug/kg	61	--	1
2,2-Dichloropropane	ND		ug/kg	15	--	1
1,2-Dibromoethane	ND		ug/kg	12	--	1
1,3-Dichloropropane	ND		ug/kg	15	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	3.0	--	1
Bromobenzene	ND		ug/kg	15	--	1
n-Butylbenzene	ND		ug/kg	3.0	--	1
sec-Butylbenzene	ND		ug/kg	3.0	--	1
tert-Butylbenzene	ND		ug/kg	15	--	1
o-Chlorotoluene	ND		ug/kg	15	--	1
p-Chlorotoluene	ND		ug/kg	15	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	15	--	1
Hexachlorobutadiene	ND		ug/kg	15	--	1
Isopropylbenzene	ND		ug/kg	3.0	--	1
p-Isopropyltoluene	ND		ug/kg	3.0	--	1
Naphthalene	ND		ug/kg	15	--	1
n-Propylbenzene	ND		ug/kg	3.0	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	15	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	15	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	15	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-03 Date Collected: 06/17/13 12:10

Client ID: RC-WC-061713-03 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	15	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	15	--	1
Ethyl ether	ND		ug/kg	15	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	113		70-130
4-Bromofluorobenzene	**149**	Q	70-130
Dibromofluoromethane	111		70-130

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-03	R	Date Collected:	06/17/13 12:10
Client ID:	RC-WC-061713-03		Date Received:	06/17/13
Sample Location:	DEVENS, MA		Field Prep:	Not Specified
Matrix:	Sediment			
Analytical Method:	1,8260C			
Analytical Date:	06/18/13 16:21			
Analyst:	BN			
Percent Solids:	21%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	32	--	1
1,1-Dichloroethane	ND		ug/kg	4.8	--	1
Chloroform	ND		ug/kg	4.8	--	1
Carbon tetrachloride	ND		ug/kg	3.2	--	1
1,2-Dichloropropane	ND		ug/kg	11	--	1
Dibromochloromethane	ND		ug/kg	3.2	--	1
1,1,2-Trichloroethane	ND		ug/kg	4.8	--	1
Tetrachloroethene	ND		ug/kg	3.2	--	1
Chlorobenzene	ND		ug/kg	3.2	--	1
Trichlorofluoromethane	ND		ug/kg	16	--	1
1,2-Dichloroethane	ND		ug/kg	3.2	--	1
1,1,1-Trichloroethane	ND		ug/kg	3.2	--	1
Bromodichloromethane	ND		ug/kg	3.2	--	1
trans-1,3-Dichloropropene	ND		ug/kg	3.2	--	1
cis-1,3-Dichloropropene	ND		ug/kg	3.2	--	1
1,1-Dichloropropene	ND		ug/kg	16	--	1
Bromoform	ND		ug/kg	13	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	3.2	--	1
Benzene	ND		ug/kg	3.2	--	1
Toluene	ND		ug/kg	4.8	--	1
Ethylbenzene	ND		ug/kg	3.2	--	1
Chloromethane	ND		ug/kg	16	--	1
Bromomethane	ND		ug/kg	6.4	--	1
Vinyl chloride	ND		ug/kg	6.4	--	1
Chloroethane	ND		ug/kg	6.4	--	1
1,1-Dichloroethene	ND		ug/kg	3.2	--	1
trans-1,2-Dichloroethene	ND		ug/kg	4.8	--	1
Trichloroethene	ND		ug/kg	3.2	--	1
1,2-Dichlorobenzene	ND		ug/kg	16	--	1
1,3-Dichlorobenzene	ND		ug/kg	16	--	1
1,4-Dichlorobenzene	ND		ug/kg	16	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-03 R Date Collected: 06/17/13 12:10

Client ID: RC-WC-061713-03 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	6.4	--	1
p/m-Xylene	ND		ug/kg	6.4	--	1
o-Xylene	ND		ug/kg	6.4	--	1
Xylenes, Total	ND		ug/kg	6.4	--	1
cis-1,2-Dichloroethene	ND		ug/kg	3.2	--	1
Dibromomethane	ND		ug/kg	32	--	1
1,4-Dichlorobutane	ND		ug/kg	32	--	1
1,2,3-Trichloropropane	ND		ug/kg	32	--	1
Styrene	ND		ug/kg	6.4	--	1
Dichlorodifluoromethane	ND		ug/kg	32	--	1
Acetone	130		ug/kg	120	--	1
Carbon disulfide	ND		ug/kg	32	--	1
2-Butanone	36		ug/kg	32	--	1
Vinyl acetate	ND		ug/kg	32	--	1
4-Methyl-2-pentanone	ND		ug/kg	32	--	1
2-Hexanone	ND		ug/kg	32	--	1
Ethyl methacrylate	ND		ug/kg	32	--	1
Acrylonitrile	ND		ug/kg	13	--	1
Bromochloromethane	ND		ug/kg	16	--	1
Tetrahydrofuran	ND		ug/kg	64	--	1
2,2-Dichloropropane	ND		ug/kg	16	--	1
1,2-Dibromoethane	ND		ug/kg	13	--	1
1,3-Dichloropropane	ND		ug/kg	16	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	3.2	--	1
Bromobenzene	ND		ug/kg	16	--	1
n-Butylbenzene	ND		ug/kg	3.2	--	1
sec-Butylbenzene	ND		ug/kg	3.2	--	1
tert-Butylbenzene	ND		ug/kg	16	--	1
o-Chlorotoluene	ND		ug/kg	16	--	1
p-Chlorotoluene	ND		ug/kg	16	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	16	--	1
Hexachlorobutadiene	ND		ug/kg	16	--	1
Isopropylbenzene	ND		ug/kg	3.2	--	1
p-Isopropyltoluene	ND		ug/kg	3.2	--	1
Naphthalene	ND		ug/kg	16	--	1
n-Propylbenzene	ND		ug/kg	3.2	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	16	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	16	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	16	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-03 R Date Collected: 06/17/13 12:10

Client ID: RC-WC-061713-03 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	16	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	16	--	1
Ethyl ether	ND		ug/kg	16	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	84		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	105		70-130

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-04	Date Collected:	06/17/13 12:35
Client ID:	RC-WC-061713-04	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment		
Analytical Method:	1,8260C		
Analytical Date:	06/18/13 13:35		
Analyst:	BN		
Percent Solids:	6%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	110	--	1
1,1-Dichloroethane	ND		ug/kg	17	--	1
Chloroform	ND		ug/kg	17	--	1
Carbon tetrachloride	ND		ug/kg	11	--	1
1,2-Dichloropropane	ND		ug/kg	40	--	1
Dibromochloromethane	ND		ug/kg	11	--	1
1,1,2-Trichloroethane	ND		ug/kg	17	--	1
Tetrachloroethene	ND		ug/kg	11	--	1
Chlorobenzene	ND		ug/kg	11	--	1
Trichlorofluoromethane	ND		ug/kg	57	--	1
1,2-Dichloroethane	ND		ug/kg	11	--	1
1,1,1-Trichloroethane	ND		ug/kg	11	--	1
Bromodichloromethane	ND		ug/kg	11	--	1
trans-1,3-Dichloropropene	ND		ug/kg	11	--	1
cis-1,3-Dichloropropene	ND		ug/kg	11	--	1
1,1-Dichloropropene	ND		ug/kg	57	--	1
Bromoform	ND		ug/kg	45	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	11	--	1
Benzene	12		ug/kg	11	--	1
Toluene	ND		ug/kg	17	--	1
Ethylbenzene	ND		ug/kg	11	--	1
Chloromethane	ND		ug/kg	57	--	1
Bromomethane	ND		ug/kg	23	--	1
Vinyl chloride	ND		ug/kg	23	--	1
Chloroethane	ND		ug/kg	23	--	1
1,1-Dichloroethene	ND		ug/kg	11	--	1
trans-1,2-Dichloroethene	ND		ug/kg	17	--	1
Trichloroethene	ND		ug/kg	11	--	1
1,2-Dichlorobenzene	ND		ug/kg	57	--	1
1,3-Dichlorobenzene	ND		ug/kg	57	--	1
1,4-Dichlorobenzene	ND		ug/kg	57	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-04 Date Collected: 06/17/13 12:35

Client ID: RC-WC-061713-04 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	23	--	1
p/m-Xylene	ND		ug/kg	23	--	1
o-Xylene	ND		ug/kg	23	--	1
Xylenes, Total	ND		ug/kg	23	--	1
cis-1,2-Dichloroethene	ND		ug/kg	11	--	1
Dibromomethane	ND		ug/kg	110	--	1
1,4-Dichlorobutane	ND		ug/kg	110	--	1
1,2,3-Trichloropropane	ND		ug/kg	110	--	1
Styrene	ND		ug/kg	23	--	1
Dichlorodifluoromethane	ND		ug/kg	110	--	1
Acetone	880		ug/kg	410	--	1
Carbon disulfide	ND		ug/kg	110	--	1
2-Butanone	240		ug/kg	110	--	1
Vinyl acetate	ND		ug/kg	110	--	1
4-Methyl-2-pentanone	ND		ug/kg	110	--	1
2-Hexanone	ND		ug/kg	110	--	1
Ethyl methacrylate	ND		ug/kg	110	--	1
Acrylonitrile	ND		ug/kg	45	--	1
Bromochloromethane	ND		ug/kg	57	--	1
Tetrahydrofuran	ND		ug/kg	230	--	1
2,2-Dichloropropane	ND		ug/kg	57	--	1
1,2-Dibromoethane	ND		ug/kg	45	--	1
1,3-Dichloropropane	ND		ug/kg	57	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	11	--	1
Bromobenzene	ND		ug/kg	57	--	1
n-Butylbenzene	ND		ug/kg	11	--	1
sec-Butylbenzene	ND		ug/kg	11	--	1
tert-Butylbenzene	ND		ug/kg	57	--	1
o-Chlorotoluene	ND		ug/kg	57	--	1
p-Chlorotoluene	ND		ug/kg	57	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	57	--	1
Hexachlorobutadiene	ND		ug/kg	57	--	1
Isopropylbenzene	ND		ug/kg	11	--	1
p-Isopropyltoluene	ND		ug/kg	11	--	1
Naphthalene	ND		ug/kg	57	--	1
n-Propylbenzene	ND		ug/kg	11	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	57	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	57	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	57	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-04 Date Collected: 06/17/13 12:35

Client ID: RC-WC-061713-04 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	57	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	57	--	1
Ethyl ether	ND		ug/kg	57	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	129		70-130
Dibromofluoromethane	107		70-130

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-04 R
Client ID: RC-WC-061713-04
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 16:49
Analyst: BN
Percent Solids: 6%

Date Collected: 06/17/13 12:35
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	79	--	1
1,1-Dichloroethane	ND		ug/kg	12	--	1
Chloroform	ND		ug/kg	12	--	1
Carbon tetrachloride	ND		ug/kg	7.9	--	1
1,2-Dichloropropane	ND		ug/kg	28	--	1
Dibromochloromethane	ND		ug/kg	7.9	--	1
1,1,2-Trichloroethane	ND		ug/kg	12	--	1
Tetrachloroethene	ND		ug/kg	7.9	--	1
Chlorobenzene	ND		ug/kg	7.9	--	1
Trichlorofluoromethane	ND		ug/kg	39	--	1
1,2-Dichloroethane	ND		ug/kg	7.9	--	1
1,1,1-Trichloroethane	ND		ug/kg	7.9	--	1
Bromodichloromethane	ND		ug/kg	7.9	--	1
trans-1,3-Dichloropropene	ND		ug/kg	7.9	--	1
cis-1,3-Dichloropropene	ND		ug/kg	7.9	--	1
1,1-Dichloropropene	ND		ug/kg	39	--	1
Bromoform	ND		ug/kg	32	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	7.9	--	1
Benzene	12		ug/kg	7.9	--	1
Toluene	ND		ug/kg	12	--	1
Ethylbenzene	ND		ug/kg	7.9	--	1
Chloromethane	ND		ug/kg	39	--	1
Bromomethane	ND		ug/kg	16	--	1
Vinyl chloride	ND		ug/kg	16	--	1
Chloroethane	ND		ug/kg	16	--	1
1,1-Dichloroethene	ND		ug/kg	7.9	--	1
trans-1,2-Dichloroethene	ND		ug/kg	12	--	1
Trichloroethene	ND		ug/kg	7.9	--	1
1,2-Dichlorobenzene	ND		ug/kg	39	--	1
1,3-Dichlorobenzene	ND		ug/kg	39	--	1
1,4-Dichlorobenzene	ND		ug/kg	39	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-04 R Date Collected: 06/17/13 12:35

Client ID: RC-WC-061713-04 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	16	--	1
p/m-Xylene	ND		ug/kg	16	--	1
o-Xylene	ND		ug/kg	16	--	1
Xylenes, Total	ND		ug/kg	16	--	1
cis-1,2-Dichloroethene	ND		ug/kg	7.9	--	1
Dibromomethane	ND		ug/kg	79	--	1
1,4-Dichlorobutane	ND		ug/kg	79	--	1
1,2,3-Trichloropropane	ND		ug/kg	79	--	1
Styrene	ND		ug/kg	16	--	1
Dichlorodifluoromethane	ND		ug/kg	79	--	1
Acetone	610		ug/kg	280	--	1
Carbon disulfide	ND		ug/kg	79	--	1
2-Butanone	160		ug/kg	79	--	1
Vinyl acetate	ND		ug/kg	79	--	1
4-Methyl-2-pentanone	ND		ug/kg	79	--	1
2-Hexanone	ND		ug/kg	79	--	1
Ethyl methacrylate	ND		ug/kg	79	--	1
Acrylonitrile	ND		ug/kg	32	--	1
Bromochloromethane	ND		ug/kg	39	--	1
Tetrahydrofuran	ND		ug/kg	160	--	1
2,2-Dichloropropane	ND		ug/kg	39	--	1
1,2-Dibromoethane	ND		ug/kg	32	--	1
1,3-Dichloropropane	ND		ug/kg	39	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	7.9	--	1
Bromobenzene	ND		ug/kg	39	--	1
n-Butylbenzene	ND		ug/kg	7.9	--	1
sec-Butylbenzene	ND		ug/kg	7.9	--	1
tert-Butylbenzene	ND		ug/kg	39	--	1
o-Chlorotoluene	ND		ug/kg	39	--	1
p-Chlorotoluene	ND		ug/kg	39	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	39	--	1
Hexachlorobutadiene	ND		ug/kg	39	--	1
Isopropylbenzene	ND		ug/kg	7.9	--	1
p-Isopropyltoluene	ND		ug/kg	7.9	--	1
Naphthalene	ND		ug/kg	39	--	1
n-Propylbenzene	ND		ug/kg	7.9	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	39	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	39	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	39	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-04 R
Client ID: RC-WC-061713-04
Sample Location: DEVENS, MA

Date Collected: 06/17/13 12:35
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	39	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	39	--	1
Ethyl ether	ND		ug/kg	39	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	85		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	121		70-130
Dibromofluoromethane	106		70-130

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-05	Date Collected:	06/17/13 13:10
Client ID:	RC-WC-061713-05	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment		
Analytical Method:	1,8260C		
Analytical Date:	06/18/13 14:02		
Analyst:	BN		
Percent Solids:	9%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	58	--	1
1,1-Dichloroethane	ND		ug/kg	8.7	--	1
Chloroform	ND		ug/kg	8.7	--	1
Carbon tetrachloride	ND		ug/kg	5.8	--	1
1,2-Dichloropropane	ND		ug/kg	20	--	1
Dibromochloromethane	ND		ug/kg	5.8	--	1
1,1,2-Trichloroethane	ND		ug/kg	8.7	--	1
Tetrachloroethene	ND		ug/kg	5.8	--	1
Chlorobenzene	ND		ug/kg	5.8	--	1
Trichlorofluoromethane	ND		ug/kg	29	--	1
1,2-Dichloroethane	ND		ug/kg	5.8	--	1
1,1,1-Trichloroethane	ND		ug/kg	5.8	--	1
Bromodichloromethane	ND		ug/kg	5.8	--	1
trans-1,3-Dichloropropene	ND		ug/kg	5.8	--	1
cis-1,3-Dichloropropene	ND		ug/kg	5.8	--	1
1,1-Dichloropropene	ND		ug/kg	29	--	1
Bromoform	ND		ug/kg	23	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	5.8	--	1
Benzene	7.9		ug/kg	5.8	--	1
Toluene	ND		ug/kg	8.7	--	1
Ethylbenzene	ND		ug/kg	5.8	--	1
Chloromethane	ND		ug/kg	29	--	1
Bromomethane	ND		ug/kg	12	--	1
Vinyl chloride	ND		ug/kg	12	--	1
Chloroethane	ND		ug/kg	12	--	1
1,1-Dichloroethene	ND		ug/kg	5.8	--	1
trans-1,2-Dichloroethene	ND		ug/kg	8.7	--	1
Trichloroethene	ND		ug/kg	5.8	--	1
1,2-Dichlorobenzene	ND		ug/kg	29	--	1
1,3-Dichlorobenzene	ND		ug/kg	29	--	1
1,4-Dichlorobenzene	ND		ug/kg	29	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-05 Date Collected: 06/17/13 13:10

Client ID: RC-WC-061713-05 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	12	--	1
p/m-Xylene	ND		ug/kg	12	--	1
o-Xylene	ND		ug/kg	12	--	1
Xylenes, Total	ND		ug/kg	12	--	1
cis-1,2-Dichloroethene	7.5		ug/kg	5.8	--	1
Dibromomethane	ND		ug/kg	58	--	1
1,4-Dichlorobutane	ND		ug/kg	58	--	1
1,2,3-Trichloropropane	ND		ug/kg	58	--	1
Styrene	ND		ug/kg	12	--	1
Dichlorodifluoromethane	ND		ug/kg	58	--	1
Acetone	610		ug/kg	210	--	1
Carbon disulfide	ND		ug/kg	58	--	1
2-Butanone	180		ug/kg	58	--	1
Vinyl acetate	ND		ug/kg	58	--	1
4-Methyl-2-pentanone	ND		ug/kg	58	--	1
2-Hexanone	ND		ug/kg	58	--	1
Ethyl methacrylate	ND		ug/kg	58	--	1
Acrylonitrile	ND		ug/kg	23	--	1
Bromochloromethane	ND		ug/kg	29	--	1
Tetrahydrofuran	ND		ug/kg	120	--	1
2,2-Dichloropropane	ND		ug/kg	29	--	1
1,2-Dibromoethane	ND		ug/kg	23	--	1
1,3-Dichloropropane	ND		ug/kg	29	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	5.8	--	1
Bromobenzene	ND		ug/kg	29	--	1
n-Butylbenzene	ND		ug/kg	5.8	--	1
sec-Butylbenzene	ND		ug/kg	5.8	--	1
tert-Butylbenzene	ND		ug/kg	29	--	1
o-Chlorotoluene	ND		ug/kg	29	--	1
p-Chlorotoluene	ND		ug/kg	29	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	29	--	1
Hexachlorobutadiene	ND		ug/kg	29	--	1
Isopropylbenzene	ND		ug/kg	5.8	--	1
p-Isopropyltoluene	ND		ug/kg	5.8	--	1
Naphthalene	ND		ug/kg	29	--	1
n-Propylbenzene	ND		ug/kg	5.8	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	29	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	29	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	29	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-05 Date Collected: 06/17/13 13:10

Client ID: RC-WC-061713-05 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	29	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	29	--	1
Ethyl ether	ND		ug/kg	29	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	110		70-130
4-Bromofluorobenzene	**132**	Q	70-130
Dibromofluoromethane	109		70-130

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-05 R
Client ID: RC-WC-061713-05
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 17:17
Analyst: BN
Percent Solids: 9%

Date Collected: 06/17/13 13:10
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	79	--	1
1,1-Dichloroethane	ND		ug/kg	12	--	1
Chloroform	ND		ug/kg	12	--	1
Carbon tetrachloride	ND		ug/kg	7.9	--	1
1,2-Dichloropropane	ND		ug/kg	28	--	1
Dibromochloromethane	ND		ug/kg	7.9	--	1
1,1,2-Trichloroethane	ND		ug/kg	12	--	1
Tetrachloroethene	ND		ug/kg	7.9	--	1
Chlorobenzene	ND		ug/kg	7.9	--	1
Trichlorofluoromethane	ND		ug/kg	40	--	1
1,2-Dichloroethane	ND		ug/kg	7.9	--	1
1,1,1-Trichloroethane	ND		ug/kg	7.9	--	1
Bromodichloromethane	ND		ug/kg	7.9	--	1
trans-1,3-Dichloropropene	ND		ug/kg	7.9	--	1
cis-1,3-Dichloropropene	ND		ug/kg	7.9	--	1
1,1-Dichloropropene	ND		ug/kg	40	--	1
Bromoform	ND		ug/kg	32	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	7.9	--	1
Benzene	9.6		ug/kg	7.9	--	1
Toluene	ND		ug/kg	12	--	1
Ethylbenzene	ND		ug/kg	7.9	--	1
Chloromethane	ND		ug/kg	40	--	1
Bromomethane	ND		ug/kg	16	--	1
Vinyl chloride	ND		ug/kg	16	--	1
Chloroethane	ND		ug/kg	16	--	1
1,1-Dichloroethene	ND		ug/kg	7.9	--	1
trans-1,2-Dichloroethene	ND		ug/kg	12	--	1
Trichloroethene	ND		ug/kg	7.9	--	1
1,2-Dichlorobenzene	ND		ug/kg	40	--	1
1,3-Dichlorobenzene	ND		ug/kg	40	--	1
1,4-Dichlorobenzene	ND		ug/kg	40	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-05 R Date Collected: 06/17/13 13:10

Client ID: RC-WC-061713-05 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	16	--	1
p/m-Xylene	ND		ug/kg	16	--	1
o-Xylene	ND		ug/kg	16	--	1
Xylenes, Total	ND		ug/kg	16	--	1
cis-1,2-Dichloroethene	9.2		ug/kg	7.9	--	1
Dibromomethane	ND		ug/kg	79	--	1
1,4-Dichlorobutane	ND		ug/kg	79	--	1
1,2,3-Trichloropropane	ND		ug/kg	79	--	1
Styrene	ND		ug/kg	16	--	1
Dichlorodifluoromethane	ND		ug/kg	79	--	1
Acetone	770		ug/kg	280	--	1
Carbon disulfide	ND		ug/kg	79	--	1
2-Butanone	220		ug/kg	79	--	1
Vinyl acetate	ND		ug/kg	79	--	1
4-Methyl-2-pentanone	ND		ug/kg	79	--	1
2-Hexanone	ND		ug/kg	79	--	1
Ethyl methacrylate	ND		ug/kg	79	--	1
Acrylonitrile	ND		ug/kg	32	--	1
Bromochloromethane	ND		ug/kg	40	--	1
Tetrahydrofuran	ND		ug/kg	160	--	1
2,2-Dichloropropane	ND		ug/kg	40	--	1
1,2-Dibromoethane	ND		ug/kg	32	--	1
1,3-Dichloropropane	ND		ug/kg	40	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	7.9	--	1
Bromobenzene	ND		ug/kg	40	--	1
n-Butylbenzene	ND		ug/kg	7.9	--	1
sec-Butylbenzene	ND		ug/kg	7.9	--	1
tert-Butylbenzene	ND		ug/kg	40	--	1
o-Chlorotoluene	ND		ug/kg	40	--	1
p-Chlorotoluene	ND		ug/kg	40	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	40	--	1
Hexachlorobutadiene	ND		ug/kg	40	--	1
Isopropylbenzene	ND		ug/kg	7.9	--	1
p-Isopropyltoluene	ND		ug/kg	7.9	--	1
Naphthalene	ND		ug/kg	40	--	1
n-Propylbenzene	ND		ug/kg	7.9	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	40	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	40	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	40	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-05 R Date Collected: 06/17/13 13:10

Client ID: RC-WC-061713-05 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	40	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	40	--	1
Ethyl ether	ND		ug/kg	40	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	105		70-130

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-06
Client ID: RC-WC-061713-06
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 14:30
Analyst: BN
Percent Solids: 27%

Date Collected: 06/17/13 13:30
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	17	--	1
1,1-Dichloroethane	ND		ug/kg	2.5	--	1
Chloroform	ND		ug/kg	2.5	--	1
Carbon tetrachloride	ND		ug/kg	1.7	--	1
1,2-Dichloropropane	ND		ug/kg	5.8	--	1
Dibromochloromethane	ND		ug/kg	1.7	--	1
1,1,2-Trichloroethane	ND		ug/kg	2.5	--	1
Tetrachloroethene	ND		ug/kg	1.7	--	1
Chlorobenzene	ND		ug/kg	1.7	--	1
Trichlorofluoromethane	ND		ug/kg	8.4	--	1
1,2-Dichloroethane	ND		ug/kg	1.7	--	1
1,1,1-Trichloroethane	ND		ug/kg	1.7	--	1
Bromodichloromethane	ND		ug/kg	1.7	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.7	--	1
cis-1,3-Dichloropropene	ND		ug/kg	1.7	--	1
1,1-Dichloropropene	ND		ug/kg	8.4	--	1
Bromoform	ND		ug/kg	6.7	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.7	--	1
Benzene	ND		ug/kg	1.7	--	1
Toluene	ND		ug/kg	2.5	--	1
Ethylbenzene	ND		ug/kg	1.7	--	1
Chloromethane	ND		ug/kg	8.4	--	1
Bromomethane	ND		ug/kg	3.3	--	1
Vinyl chloride	ND		ug/kg	3.3	--	1
Chloroethane	ND		ug/kg	3.3	--	1
1,1-Dichloroethene	ND		ug/kg	1.7	--	1
trans-1,2-Dichloroethene	ND		ug/kg	2.5	--	1
Trichloroethene	ND		ug/kg	1.7	--	1
1,2-Dichlorobenzene	ND		ug/kg	8.4	--	1
1,3-Dichlorobenzene	ND		ug/kg	8.4	--	1
1,4-Dichlorobenzene	ND		ug/kg	8.4	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-06 Date Collected: 06/17/13 13:30

Client ID: RC-WC-061713-06 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	3.3	--	1
p/m-Xylene	ND		ug/kg	3.3	--	1
o-Xylene	ND		ug/kg	3.3	--	1
Xylenes, Total	ND		ug/kg	3.3	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.7	--	1
Dibromomethane	ND		ug/kg	17	--	1
1,4-Dichlorobutane	ND		ug/kg	17	--	1
1,2,3-Trichloropropane	ND		ug/kg	17	--	1
Styrene	ND		ug/kg	3.3	--	1
Dichlorodifluoromethane	ND		ug/kg	17	--	1
Acetone	190		ug/kg	60	--	1
Carbon disulfide	ND		ug/kg	17	--	1
2-Butanone	58		ug/kg	17	--	1
Vinyl acetate	ND		ug/kg	17	--	1
4-Methyl-2-pentanone	ND		ug/kg	17	--	1
2-Hexanone	ND		ug/kg	17	--	1
Ethyl methacrylate	ND		ug/kg	17	--	1
Acrylonitrile	ND		ug/kg	6.7	--	1
Bromochloromethane	ND		ug/kg	8.4	--	1
Tetrahydrofuran	ND		ug/kg	33	--	1
2,2-Dichloropropane	ND		ug/kg	8.4	--	1
1,2-Dibromoethane	ND		ug/kg	6.7	--	1
1,3-Dichloropropane	ND		ug/kg	8.4	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.7	--	1
Bromobenzene	ND		ug/kg	8.4	--	1
n-Butylbenzene	ND		ug/kg	1.7	--	1
sec-Butylbenzene	ND		ug/kg	1.7	--	1
tert-Butylbenzene	ND		ug/kg	8.4	--	1
o-Chlorotoluene	ND		ug/kg	8.4	--	1
p-Chlorotoluene	ND		ug/kg	8.4	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	8.4	--	1
Hexachlorobutadiene	ND		ug/kg	8.4	--	1
Isopropylbenzene	ND		ug/kg	1.7	--	1
p-Isopropyltoluene	ND		ug/kg	1.7	--	1
Naphthalene	ND		ug/kg	8.4	--	1
n-Propylbenzene	ND		ug/kg	1.7	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	8.4	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	8.4	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	8.4	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-06 Date Collected: 06/17/13 13:30

Client ID: RC-WC-061713-06 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	8.4	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	8.4	--	1
Ethyl ether	ND		ug/kg	8.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	**141**	Q	70-130
Dibromofluoromethane	110		70-130

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-06 R
Client ID: RC-WC-061713-06
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 17:45
Analyst: BN
Percent Solids: 27%

Date Collected: 06/17/13 13:30
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	24	--	1
1,1-Dichloroethane	ND		ug/kg	3.6	--	1
Chloroform	ND		ug/kg	3.6	--	1
Carbon tetrachloride	ND		ug/kg	2.4	--	1
1,2-Dichloropropane	ND		ug/kg	8.3	--	1
Dibromochloromethane	ND		ug/kg	2.4	--	1
1,1,2-Trichloroethane	ND		ug/kg	3.6	--	1
Tetrachloroethene	ND		ug/kg	2.4	--	1
Chlorobenzene	ND		ug/kg	2.4	--	1
Trichlorofluoromethane	ND		ug/kg	12	--	1
1,2-Dichloroethane	ND		ug/kg	2.4	--	1
1,1,1-Trichloroethane	ND		ug/kg	2.4	--	1
Bromodichloromethane	ND		ug/kg	2.4	--	1
trans-1,3-Dichloropropene	ND		ug/kg	2.4	--	1
cis-1,3-Dichloropropene	ND		ug/kg	2.4	--	1
1,1-Dichloropropene	ND		ug/kg	12	--	1
Bromoform	ND		ug/kg	9.5	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.4	--	1
Benzene	ND		ug/kg	2.4	--	1
Toluene	ND		ug/kg	3.6	--	1
Ethylbenzene	ND		ug/kg	2.4	--	1
Chloromethane	ND		ug/kg	12	--	1
Bromomethane	ND		ug/kg	4.7	--	1
Vinyl chloride	ND		ug/kg	4.7	--	1
Chloroethane	ND		ug/kg	4.7	--	1
1,1-Dichloroethene	ND		ug/kg	2.4	--	1
trans-1,2-Dichloroethene	ND		ug/kg	3.6	--	1
Trichloroethene	ND		ug/kg	2.4	--	1
1,2-Dichlorobenzene	ND		ug/kg	12	--	1
1,3-Dichlorobenzene	ND		ug/kg	12	--	1
1,4-Dichlorobenzene	ND		ug/kg	12	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-06 R Date Collected: 06/17/13 13:30

Client ID: RC-WC-061713-06 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	4.7	--	1
p/m-Xylene	ND		ug/kg	4.7	--	1
o-Xylene	ND		ug/kg	4.7	--	1
Xylenes, Total	ND		ug/kg	4.7	--	1
cis-1,2-Dichloroethene	ND		ug/kg	2.4	--	1
Dibromomethane	ND		ug/kg	24	--	1
1,4-Dichlorobutane	ND		ug/kg	24	--	1
1,2,3-Trichloropropane	ND		ug/kg	24	--	1
Styrene	ND		ug/kg	4.7	--	1
Dichlorodifluoromethane	ND		ug/kg	24	--	1
Acetone	300		ug/kg	85	--	1
Carbon disulfide	ND		ug/kg	24	--	1
2-Butanone	87		ug/kg	24	--	1
Vinyl acetate	ND		ug/kg	24	--	1
4-Methyl-2-pentanone	ND		ug/kg	24	--	1
2-Hexanone	ND		ug/kg	24	--	1
Ethyl methacrylate	ND		ug/kg	24	--	1
Acrylonitrile	ND		ug/kg	9.5	--	1
Bromochloromethane	ND		ug/kg	12	--	1
Tetrahydrofuran	ND		ug/kg	47	--	1
2,2-Dichloropropane	ND		ug/kg	12	--	1
1,2-Dibromoethane	ND		ug/kg	9.5	--	1
1,3-Dichloropropane	ND		ug/kg	12	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	2.4	--	1
Bromobenzene	ND		ug/kg	12	--	1
n-Butylbenzene	ND		ug/kg	2.4	--	1
sec-Butylbenzene	ND		ug/kg	2.4	--	1
tert-Butylbenzene	ND		ug/kg	12	--	1
o-Chlorotoluene	ND		ug/kg	12	--	1
p-Chlorotoluene	ND		ug/kg	12	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	12	--	1
Hexachlorobutadiene	ND		ug/kg	12	--	1
Isopropylbenzene	ND		ug/kg	2.4	--	1
p-Isopropyltoluene	ND		ug/kg	2.4	--	1
Naphthalene	ND		ug/kg	12	--	1
n-Propylbenzene	ND		ug/kg	2.4	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	12	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	12	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	12	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-06 R
Client ID: RC-WC-061713-06
Sample Location: DEVENS, MA

Date Collected: 06/17/13 13:30
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	12	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	12	--	1
Ethyl ether	ND		ug/kg	12	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	108		70-130

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-07	Date Collected:	06/17/13 13:45
Client ID:	RC-WC-061713-07	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment		
Analytical Method:	1,8260C		
Analytical Date:	06/18/13 14:58		
Analyst:	BN		
Percent Solids:	9%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	96	--	1
1,1-Dichloroethane	ND		ug/kg	14	--	1
Chloroform	ND		ug/kg	14	--	1
Carbon tetrachloride	ND		ug/kg	9.6	--	1
1,2-Dichloropropane	ND		ug/kg	34	--	1
Dibromochloromethane	ND		ug/kg	9.6	--	1
1,1,2-Trichloroethane	ND		ug/kg	14	--	1
Tetrachloroethene	ND		ug/kg	9.6	--	1
Chlorobenzene	ND		ug/kg	9.6	--	1
Trichlorofluoromethane	ND		ug/kg	48	--	1
1,2-Dichloroethane	ND		ug/kg	9.6	--	1
1,1,1-Trichloroethane	ND		ug/kg	9.6	--	1
Bromodichloromethane	ND		ug/kg	9.6	--	1
trans-1,3-Dichloropropene	ND		ug/kg	9.6	--	1
cis-1,3-Dichloropropene	ND		ug/kg	9.6	--	1
1,1-Dichloropropene	ND		ug/kg	48	--	1
Bromoform	ND		ug/kg	38	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	9.6	--	1
Benzene	ND		ug/kg	9.6	--	1
Toluene	ND		ug/kg	14	--	1
Ethylbenzene	ND		ug/kg	9.6	--	1
Chloromethane	ND		ug/kg	48	--	1
Bromomethane	ND		ug/kg	19	--	1
Vinyl chloride	ND		ug/kg	19	--	1
Chloroethane	ND		ug/kg	19	--	1
1,1-Dichloroethene	ND		ug/kg	9.6	--	1
trans-1,2-Dichloroethene	ND		ug/kg	14	--	1
Trichloroethene	ND		ug/kg	9.6	--	1
1,2-Dichlorobenzene	ND		ug/kg	48	--	1
1,3-Dichlorobenzene	ND		ug/kg	48	--	1
1,4-Dichlorobenzene	ND		ug/kg	48	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-07 Date Collected: 06/17/13 13:45

Client ID: RC-WC-061713-07 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	19	--	1
p/m-Xylene	ND		ug/kg	19	--	1
o-Xylene	ND		ug/kg	19	--	1
Xylenes, Total	ND		ug/kg	19	--	1
cis-1,2-Dichloroethene	ND		ug/kg	9.6	--	1
Dibromomethane	ND		ug/kg	96	--	1
1,4-Dichlorobutane	ND		ug/kg	96	--	1
1,2,3-Trichloropropane	ND		ug/kg	96	--	1
Styrene	ND		ug/kg	19	--	1
Dichlorodifluoromethane	ND		ug/kg	96	--	1
Acetone	840		ug/kg	340	--	1
Carbon disulfide	ND		ug/kg	96	--	1
2-Butanone	220		ug/kg	96	--	1
Vinyl acetate	ND		ug/kg	96	--	1
4-Methyl-2-pentanone	ND		ug/kg	96	--	1
2-Hexanone	ND		ug/kg	96	--	1
Ethyl methacrylate	ND		ug/kg	96	--	1
Acrylonitrile	ND		ug/kg	38	--	1
Bromochloromethane	ND		ug/kg	48	--	1
Tetrahydrofuran	ND		ug/kg	190	--	1
2,2-Dichloropropane	ND		ug/kg	48	--	1
1,2-Dibromoethane	ND		ug/kg	38	--	1
1,3-Dichloropropane	ND		ug/kg	48	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	9.6	--	1
Bromobenzene	ND		ug/kg	48	--	1
n-Butylbenzene	ND		ug/kg	9.6	--	1
sec-Butylbenzene	ND		ug/kg	9.6	--	1
tert-Butylbenzene	ND		ug/kg	48	--	1
o-Chlorotoluene	ND		ug/kg	48	--	1
p-Chlorotoluene	ND		ug/kg	48	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	48	--	1
Hexachlorobutadiene	ND		ug/kg	48	--	1
Isopropylbenzene	ND		ug/kg	9.6	--	1
p-Isopropyltoluene	ND		ug/kg	9.6	--	1
Naphthalene	ND		ug/kg	48	--	1
n-Propylbenzene	ND		ug/kg	9.6	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	48	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	48	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	48	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-07 Date Collected: 06/17/13 13:45

Client ID: RC-WC-061713-07 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	48	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	48	--	1
Ethyl ether	ND		ug/kg	48	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	123		70-130
Dibromofluoromethane	109		70-130

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-07 R
Client ID: RC-WC-061713-07
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 18:13
Analyst: BN
Percent Solids: 9%

Date Collected: 06/17/13 13:45
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	83	--	1
1,1-Dichloroethane	ND		ug/kg	12	--	1
Chloroform	ND		ug/kg	12	--	1
Carbon tetrachloride	ND		ug/kg	8.3	--	1
1,2-Dichloropropane	ND		ug/kg	29	--	1
Dibromochloromethane	ND		ug/kg	8.3	--	1
1,1,2-Trichloroethane	ND		ug/kg	12	--	1
Tetrachloroethene	ND		ug/kg	8.3	--	1
Chlorobenzene	ND		ug/kg	8.3	--	1
Trichlorofluoromethane	ND		ug/kg	42	--	1
1,2-Dichloroethane	ND		ug/kg	8.3	--	1
1,1,1-Trichloroethane	ND		ug/kg	8.3	--	1
Bromodichloromethane	ND		ug/kg	8.3	--	1
trans-1,3-Dichloropropene	ND		ug/kg	8.3	--	1
cis-1,3-Dichloropropene	ND		ug/kg	8.3	--	1
1,1-Dichloropropene	ND		ug/kg	42	--	1
Bromoform	ND		ug/kg	33	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	8.3	--	1
Benzene	ND		ug/kg	8.3	--	1
Toluene	ND		ug/kg	12	--	1
Ethylbenzene	ND		ug/kg	8.3	--	1
Chloromethane	ND		ug/kg	42	--	1
Bromomethane	ND		ug/kg	17	--	1
Vinyl chloride	ND		ug/kg	17	--	1
Chloroethane	ND		ug/kg	17	--	1
1,1-Dichloroethene	ND		ug/kg	8.3	--	1
trans-1,2-Dichloroethene	ND		ug/kg	12	--	1
Trichloroethene	ND		ug/kg	8.3	--	1
1,2-Dichlorobenzene	ND		ug/kg	42	--	1
1,3-Dichlorobenzene	ND		ug/kg	42	--	1
1,4-Dichlorobenzene	ND		ug/kg	42	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-07 R Date Collected: 06/17/13 13:45

Client ID: RC-WC-061713-07 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	17	--	1
p/m-Xylene	ND		ug/kg	17	--	1
o-Xylene	ND		ug/kg	17	--	1
Xylenes, Total	ND		ug/kg	17	--	1
cis-1,2-Dichloroethene	ND		ug/kg	8.3	--	1
Dibromomethane	ND		ug/kg	83	--	1
1,4-Dichlorobutane	ND		ug/kg	83	--	1
1,2,3-Trichloropropane	ND		ug/kg	83	--	1
Styrene	ND		ug/kg	17	--	1
Dichlorodifluoromethane	ND		ug/kg	83	--	1
Acetone	1000		ug/kg	300	--	1
Carbon disulfide	ND		ug/kg	83	--	1
2-Butanone	270		ug/kg	83	--	1
Vinyl acetate	ND		ug/kg	83	--	1
4-Methyl-2-pentanone	ND		ug/kg	83	--	1
2-Hexanone	ND		ug/kg	83	--	1
Ethyl methacrylate	ND		ug/kg	83	--	1
Acrylonitrile	ND		ug/kg	33	--	1
Bromochloromethane	ND		ug/kg	42	--	1
Tetrahydrofuran	ND		ug/kg	170	--	1
2,2-Dichloropropane	ND		ug/kg	42	--	1
1,2-Dibromoethane	ND		ug/kg	33	--	1
1,3-Dichloropropane	ND		ug/kg	42	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	8.3	--	1
Bromobenzene	ND		ug/kg	42	--	1
n-Butylbenzene	ND		ug/kg	8.3	--	1
sec-Butylbenzene	ND		ug/kg	8.3	--	1
tert-Butylbenzene	ND		ug/kg	42	--	1
o-Chlorotoluene	ND		ug/kg	42	--	1
p-Chlorotoluene	ND		ug/kg	42	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	42	--	1
Hexachlorobutadiene	ND		ug/kg	42	--	1
Isopropylbenzene	ND		ug/kg	8.3	--	1
p-Isopropyltoluene	ND		ug/kg	8.3	--	1
Naphthalene	ND		ug/kg	42	--	1
n-Propylbenzene	ND		ug/kg	8.3	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	42	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	42	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	42	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-07 R Date Collected: 06/17/13 13:45

Client ID: RC-WC-061713-07 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	42	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	42	--	1
Ethyl ether	ND		ug/kg	42	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	121		70-130
Dibromofluoromethane	109		70-130

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-08	Date Collected:	06/17/13 14:10
Client ID:	RC-WC-061713-08	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment		
Analytical Method:	1,8260C		
Analytical Date:	06/18/13 15:26		
Analyst:	BN		
Percent Solids:	10%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	50	--	1
1,1-Dichloroethane	ND		ug/kg	7.6	--	1
Chloroform	ND		ug/kg	7.6	--	1
Carbon tetrachloride	ND		ug/kg	5.0	--	1
1,2-Dichloropropane	ND		ug/kg	18	--	1
Dibromochloromethane	ND		ug/kg	5.0	--	1
1,1,2-Trichloroethane	ND		ug/kg	7.6	--	1
Tetrachloroethene	ND		ug/kg	5.0	--	1
Chlorobenzene	ND		ug/kg	5.0	--	1
Trichlorofluoromethane	ND		ug/kg	25	--	1
1,2-Dichloroethane	ND		ug/kg	5.0	--	1
1,1,1-Trichloroethane	ND		ug/kg	5.0	--	1
Bromodichloromethane	ND		ug/kg	5.0	--	1
trans-1,3-Dichloropropene	ND		ug/kg	5.0	--	1
cis-1,3-Dichloropropene	ND		ug/kg	5.0	--	1
1,1-Dichloropropene	ND		ug/kg	25	--	1
Bromoform	ND		ug/kg	20	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	5.0	--	1
Benzene	ND		ug/kg	5.0	--	1
Toluene	ND		ug/kg	7.6	--	1
Ethylbenzene	ND		ug/kg	5.0	--	1
Chloromethane	ND		ug/kg	25	--	1
Bromomethane	ND		ug/kg	10	--	1
Vinyl chloride	ND		ug/kg	10	--	1
Chloroethane	ND		ug/kg	10	--	1
1,1-Dichloroethene	ND		ug/kg	5.0	--	1
trans-1,2-Dichloroethene	ND		ug/kg	7.6	--	1
Trichloroethene	ND		ug/kg	5.0	--	1
1,2-Dichlorobenzene	ND		ug/kg	25	--	1
1,3-Dichlorobenzene	ND		ug/kg	25	--	1
1,4-Dichlorobenzene	ND		ug/kg	25	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-08 Date Collected: 06/17/13 14:10

Client ID: RC-WC-061713-08 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	10	--	1
p/m-Xylene	ND		ug/kg	10	--	1
o-Xylene	ND		ug/kg	10	--	1
Xylenes, Total	ND		ug/kg	10	--	1
cis-1,2-Dichloroethene	5.1		ug/kg	5.0	--	1
Dibromomethane	ND		ug/kg	50	--	1
1,4-Dichlorobutane	ND		ug/kg	50	--	1
1,2,3-Trichloropropane	ND		ug/kg	50	--	1
Styrene	ND		ug/kg	10	--	1
Dichlorodifluoromethane	ND		ug/kg	50	--	1
Acetone	490		ug/kg	180	--	1
Carbon disulfide	ND		ug/kg	50	--	1
2-Butanone	150		ug/kg	50	--	1
Vinyl acetate	ND		ug/kg	50	--	1
4-Methyl-2-pentanone	ND		ug/kg	50	--	1
2-Hexanone	ND		ug/kg	50	--	1
Ethyl methacrylate	ND		ug/kg	50	--	1
Acrylonitrile	ND		ug/kg	20	--	1
Bromochloromethane	ND		ug/kg	25	--	1
Tetrahydrofuran	ND		ug/kg	100	--	1
2,2-Dichloropropane	ND		ug/kg	25	--	1
1,2-Dibromoethane	ND		ug/kg	20	--	1
1,3-Dichloropropane	ND		ug/kg	25	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	5.0	--	1
Bromobenzene	ND		ug/kg	25	--	1
n-Butylbenzene	ND		ug/kg	5.0	--	1
sec-Butylbenzene	ND		ug/kg	5.0	--	1
tert-Butylbenzene	ND		ug/kg	25	--	1
o-Chlorotoluene	ND		ug/kg	25	--	1
p-Chlorotoluene	ND		ug/kg	25	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	25	--	1
Hexachlorobutadiene	ND		ug/kg	25	--	1
Isopropylbenzene	ND		ug/kg	5.0	--	1
p-Isopropyltoluene	ND		ug/kg	5.0	--	1
Naphthalene	ND		ug/kg	25	--	1
n-Propylbenzene	ND		ug/kg	5.0	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	25	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	25	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	25	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-08 Date Collected: 06/17/13 14:10

Client ID: RC-WC-061713-08 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	25	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	25	--	1
Ethyl ether	ND		ug/kg	25	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	110		70-130
4-Bromofluorobenzene	**131**	Q	70-130
Dibromofluoromethane	109		70-130

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-08 R
Client ID: RC-WC-061713-08
Sample Location: DEVENS, MA
Matrix: Sediment
Analytical Method: 1,8260C
Analytical Date: 06/18/13 18:40
Analyst: BN
Percent Solids: 10%

Date Collected: 06/17/13 14:10
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	58	--	1
1,1-Dichloroethane	ND		ug/kg	8.7	--	1
Chloroform	ND		ug/kg	8.7	--	1
Carbon tetrachloride	ND		ug/kg	5.8	--	1
1,2-Dichloropropane	ND		ug/kg	20	--	1
Dibromochloromethane	ND		ug/kg	5.8	--	1
1,1,2-Trichloroethane	ND		ug/kg	8.7	--	1
Tetrachloroethene	ND		ug/kg	5.8	--	1
Chlorobenzene	ND		ug/kg	5.8	--	1
Trichlorofluoromethane	ND		ug/kg	29	--	1
1,2-Dichloroethane	ND		ug/kg	5.8	--	1
1,1,1-Trichloroethane	ND		ug/kg	5.8	--	1
Bromodichloromethane	ND		ug/kg	5.8	--	1
trans-1,3-Dichloropropene	ND		ug/kg	5.8	--	1
cis-1,3-Dichloropropene	ND		ug/kg	5.8	--	1
1,1-Dichloropropene	ND		ug/kg	29	--	1
Bromoform	ND		ug/kg	23	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	5.8	--	1
Benzene	ND		ug/kg	5.8	--	1
Toluene	ND		ug/kg	8.7	--	1
Ethylbenzene	ND		ug/kg	5.8	--	1
Chloromethane	ND		ug/kg	29	--	1
Bromomethane	ND		ug/kg	12	--	1
Vinyl chloride	ND		ug/kg	12	--	1
Chloroethane	ND		ug/kg	12	--	1
1,1-Dichloroethene	ND		ug/kg	5.8	--	1
trans-1,2-Dichloroethene	ND		ug/kg	8.7	--	1
Trichloroethene	ND		ug/kg	5.8	--	1
1,2-Dichlorobenzene	ND		ug/kg	29	--	1
1,3-Dichlorobenzene	ND		ug/kg	29	--	1
1,4-Dichlorobenzene	ND		ug/kg	29	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-08 R Date Collected: 06/17/13 14:10

Client ID: RC-WC-061713-08 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	12	--	1
p/m-Xylene	ND		ug/kg	12	--	1
o-Xylene	ND		ug/kg	12	--	1
Xylenes, Total	ND		ug/kg	12	--	1
cis-1,2-Dichloroethene	ND		ug/kg	5.8	--	1
Dibromomethane	ND		ug/kg	58	--	1
1,4-Dichlorobutane	ND		ug/kg	58	--	1
1,2,3-Trichloropropane	ND		ug/kg	58	--	1
Styrene	ND		ug/kg	12	--	1
Dichlorodifluoromethane	ND		ug/kg	58	--	1
Acetone	480		ug/kg	210	--	1
Carbon disulfide	ND		ug/kg	58	--	1
2-Butanone	140		ug/kg	58	--	1
Vinyl acetate	ND		ug/kg	58	--	1
4-Methyl-2-pentanone	ND		ug/kg	58	--	1
2-Hexanone	ND		ug/kg	58	--	1
Ethyl methacrylate	ND		ug/kg	58	--	1
Acrylonitrile	ND		ug/kg	23	--	1
Bromochloromethane	ND		ug/kg	29	--	1
Tetrahydrofuran	ND		ug/kg	120	--	1
2,2-Dichloropropane	ND		ug/kg	29	--	1
1,2-Dibromoethane	ND		ug/kg	23	--	1
1,3-Dichloropropane	ND		ug/kg	29	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	5.8	--	1
Bromobenzene	ND		ug/kg	29	--	1
n-Butylbenzene	ND		ug/kg	5.8	--	1
sec-Butylbenzene	ND		ug/kg	5.8	--	1
tert-Butylbenzene	ND		ug/kg	29	--	1
o-Chlorotoluene	ND		ug/kg	29	--	1
p-Chlorotoluene	ND		ug/kg	29	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	29	--	1
Hexachlorobutadiene	ND		ug/kg	29	--	1
Isopropylbenzene	ND		ug/kg	5.8	--	1
p-Isopropyltoluene	ND		ug/kg	5.8	--	1
Naphthalene	ND		ug/kg	29	--	1
n-Propylbenzene	ND		ug/kg	5.8	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	29	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	29	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	29	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-08 R Date Collected: 06/17/13 14:10

Client ID: RC-WC-061713-08 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	29	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	29	--	1
Ethyl ether	ND		ug/kg	29	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	106		70-130

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/18/13 10:20
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 01-08 Batch: WG615996-3					
Methylene chloride	ND		ug/kg	10	--
1,1-Dichloroethane	ND		ug/kg	1.5	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	3.5	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.5	--
2-Chloroethylvinyl ether	ND		ug/kg	20	--
Tetrachloroethene	ND		ug/kg	1.0	--
Chlorobenzene	ND		ug/kg	1.0	--
Trichlorofluoromethane	ND		ug/kg	5.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	1.0	--
Bromodichloromethane	ND		ug/kg	1.0	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	1.0	--
1,1-Dichloropropene	ND		ug/kg	5.0	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	--
Benzene	ND		ug/kg	1.0	--
Toluene	ND		ug/kg	1.5	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	5.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	2.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	1.0	--
1,2-Dichlorobenzene	ND		ug/kg	5.0	--
1,3-Dichlorobenzene	ND		ug/kg	5.0	--

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/18/13 10:20
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 01-08 Batch: WG615996-3					
1,4-Dichlorobenzene	ND		ug/kg	5.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	2.0	--
Xylenes, Total	ND		ug/kg	2.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	10	--
1,4-Dichlorobutane	ND		ug/kg	10	--
1,2,3-Trichloropropane	ND		ug/kg	10	--
Styrene	ND		ug/kg	2.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	36	--
Carbon disulfide	ND		ug/kg	10	--
2-Butanone	ND		ug/kg	10	--
Vinyl acetate	ND		ug/kg	10	--
4-Methyl-2-pentanone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Ethyl methacrylate	ND		ug/kg	10	--
Acrolein	ND		ug/kg	25	--
Acrylonitrile	ND		ug/kg	4.0	--
Bromochloromethane	ND		ug/kg	5.0	--
Tetrahydrofuran	ND		ug/kg	20	--
2,2-Dichloropropane	ND		ug/kg	5.0	--
1,2-Dibromoethane	ND		ug/kg	4.0	--
1,3-Dichloropropane	ND		ug/kg	5.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	--
Bromobenzene	ND		ug/kg	5.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	5.0	--
1,3,5-Trichlorobenzene	ND		ug/kg	4.0	--

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/18/13 10:20
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 01-08 Batch: WG615996-3					
o-Chlorotoluene	ND		ug/kg	5.0	--
p-Chlorotoluene	ND		ug/kg	5.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	--
Hexachlorobutadiene	ND		ug/kg	5.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	5.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	--
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	--
Ethyl ether	ND		ug/kg	5.0	--
Methyl Acetate	ND		ug/kg	20	--
Ethyl Acetate	ND		ug/kg	20	--
Isopropyl Ether	ND		ug/kg	4.0	--
Cyclohexane	ND		ug/kg	20	--
Tert-Butyl Alcohol	ND		ug/kg	100	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	--
1,4-Dioxane	ND		ug/kg	100	--
Methyl cyclohexane	ND		ug/kg	4.0	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/kg	20	--

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/18/13 10:20
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 01-08 Batch: WG615996-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	105		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 01-08 Batch: WG615996-1 WG615996-2								
Methylene chloride	107		97		70-130	10		30
1,1-Dichloroethane	116		102		70-130	13		30
Chloroform	115		102		70-130	12		30
Carbon tetrachloride	119		99		70-130	18		30
1,2-Dichloropropane	112		101		70-130	10		30
Dibromochloromethane	99		93		70-130	6		30
1,1,2-Trichloroethane	95		89		70-130	7		30
2-Chloroethylvinyl ether	112		101		70-130	10		30
Tetrachloroethene	104		88		70-130	17		30
Chlorobenzene	103		92		70-130	11		30
Trichlorofluoromethane	96		79		70-139	19		30
1,2-Dichloroethane	112		105		70-130	6		30
1,1,1-Trichloroethane	117		100		70-130	16		30
Bromodichloromethane	114		105		70-130	8		30
trans-1,3-Dichloropropene	102		95		70-130	7		30
cis-1,3-Dichloropropene	109		100		70-130	9		30
1,1-Dichloropropene	117		98		70-130	18		30
Bromoform	83		80		70-130	4		30
1,1,2,2-Tetrachloroethane	83		80		70-130	4		30
Benzene	112		99		70-130	12		30
Toluene	99		87		70-130	13		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 01-08 Batch: WG615996-1 WG615996-2								
Ethylbenzene	103		90		70-130	13		30
Chloromethane	119		100		52-130	17		30
Bromomethane	95		82		57-147	15		30
Vinyl chloride	107		89		67-130	18		30
Chloroethane	86		73		50-151	16		30
1,1-Dichloroethene	119		99		65-135	18		30
trans-1,2-Dichloroethene	116		100		70-130	15		30
Trichloroethene	111		96		70-130	14		30
1,2-Dichlorobenzene	98		90		70-130	9		30
1,3-Dichlorobenzene	99		89		70-130	11		30
1,4-Dichlorobenzene	99		90		70-130	10		30
Methyl tert butyl ether	102		97		66-130	5		30
p/m-Xylene	105		92		70-130	13		30
o-Xylene	102		90		70-130	13		30
cis-1,2-Dichloroethene	111		100		70-130	10		30
Dibromomethane	108		102		70-130	6		30
1,4-Dichlorobutane	84		81		70-130	4		30
1,2,3-Trichloropropane	80		78		68-130	3		30
Styrene	100		90		70-130	11		30
Dichlorodifluoromethane	145		119		30-146	20		30
Acetone	101		98		54-140	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 01-08 Batch: WG615996-1 WG615996-2								
Carbon disulfide	114		96		59-130	17		30
2-Butanone	94		92		70-130	2		30
Vinyl acetate	94		90		70-130	4		30
4-Methyl-2-pentanone	81		80		70-130	1		30
2-Hexanone	77		75		70-130	3		30
Ethyl methacrylate	90		85		70-130	6		30
Acrolein	85		86			1		30
Acrylonitrile	92		91		70-130	1		30
Bromochloromethane	112		105		70-130	6		30
Tetrahydrofuran	89		88		66-130	1		30
2,2-Dichloropropane	118		101		70-130	16		30
1,2-Dibromoethane	97		92		70-130	5		30
1,3-Dichloropropane	97		92		69-130	5		30
1,1,1,2-Tetrachloroethane	102		92		70-130	10		30
Bromobenzene	96		88		70-130	9		30
n-Butylbenzene	104		88		70-130	17		30
sec-Butylbenzene	103		87		70-130	17		30
tert-Butylbenzene	104		89		70-130	16		30
1,3,5-Trichlorobenzene	98		87		70-139	12		30
o-Chlorotoluene	108		95		70-130	13		30
p-Chlorotoluene	102		90		70-130	13		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 01-08 Batch: WG615996-1 WG615996-2								
1,2-Dibromo-3-chloropropane	69		**67**	Q	68-130	3		30
Hexachlorobutadiene	110		94		67-130	16		30
Isopropylbenzene	99		85		70-130	15		30
p-Isopropyltoluene	103		89		70-130	15		30
Naphthalene	80		77		70-130	4		30
n-Propylbenzene	99		85		70-130	15		30
1,2,3-Trichlorobenzene	90		84		70-130	7		30
1,2,4-Trichlorobenzene	96		89		70-130	8		30
1,3,5-Trimethylbenzene	103		90		70-130	13		30
1,2,4-Trimethylbenzene	104		92		70-130	12		30
trans-1,4-Dichloro-2-butene	81		76		70-130	6		30
Ethyl ether	88		84		67-130	5		30
Methyl Acetate	97		96		65-130	1		30
Ethyl Acetate	90		88		70-130	2		30
Cyclohexane	117		96		70-130	20		30
Tert-Butyl Alcohol	76		77		70-130	1		30
Ethyl-Tert-Butyl-Ether	109		102		70-130	7		30
Tertiary-Amyl Methyl Ether	104		99		70-130	5		30
1,4-Dioxane	96		93		65-136	3		30
Methyl cyclohexane	117		96		70-130	20		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	118		97		70-130	20		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 01-08 Batch: WG615996-1 WG615996-2								
1,4-Diethylbenzene	104		88		70-130	17		30
4-Ethyltoluene	101		87		70-130	15		30
1,2,4,5-Tetramethylbenzene	103		90		70-130	13		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		98		70-130
Toluene-d8	98		97		70-130
4-Bromofluorobenzene	103		104		70-130
Dibromofluoromethane	104		105		70-130

SEMIVOLATILES

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-01	Date Collected:	06/17/13 11:20
Client ID:	RC-WC-061713-01	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	06/18/13 02:17
Analytical Date:	06/22/13 00:09		
Analyst:	JB		
Percent Solids:	21%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	630	--	1
Benzidine	ND		ug/kg	2700	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	790	--	1
Hexachlorobenzene	ND		ug/kg	470	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	790	--	1
2-Chloronaphthalene	ND		ug/kg	790	--	1
1,2-Dichlorobenzene	ND		ug/kg	790	--	1
1,3-Dichlorobenzene	ND		ug/kg	790	--	1
1,4-Dichlorobenzene	ND		ug/kg	790	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	790	--	1
2,4-Dinitrotoluene	ND		ug/kg	790	--	1
2,6-Dinitrotoluene	ND		ug/kg	790	--	1
Azobenzene	ND		ug/kg	790	--	1
Fluoranthene	ND		ug/kg	470	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	790	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	790	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	940	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	790	--	1
Hexachlorobutadiene	ND		ug/kg	790	--	1
Hexachlorocyclopentadiene	ND		ug/kg	2200	--	1
Hexachloroethane	ND		ug/kg	630	--	1
Isophorone	ND		ug/kg	790	--	1
Naphthalene	ND		ug/kg	790	--	1
Nitrobenzene	ND		ug/kg	790	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	630	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	790	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	790	--	1
Butyl benzyl phthalate	ND		ug/kg	790	--	1
Di-n-butylphthalate	ND		ug/kg	790	--	1
Di-n-octylphthalate	ND		ug/kg	790	--	1
Diethyl phthalate	ND		ug/kg	790	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-01 Date Collected: 06/17/13 11:20

Client ID: RC-WC-061713-01 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	790	--	1
Benzo(a)anthracene	ND		ug/kg	470	--	1
Benzo(a)pyrene	ND		ug/kg	630	--	1
Benzo(b)fluoranthene	ND		ug/kg	470	--	1
Benzo(k)fluoranthene	ND		ug/kg	470	--	1
Chrysene	ND		ug/kg	470	--	1
Acenaphthylene	ND		ug/kg	630	--	1
Anthracene	ND		ug/kg	470	--	1
Benzo(ghi)perylene	ND		ug/kg	630	--	1
Fluorene	ND		ug/kg	790	--	1
Phenanthrene	ND		ug/kg	470	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	470	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	630	--	1
Pyrene	ND		ug/kg	470	--	1
Biphenyl	ND		ug/kg	1700	--	1
Aniline	ND		ug/kg	940	--	1
4-Chloroaniline	ND		ug/kg	790	--	1
1-Methylnaphthalene	ND		ug/kg	790	--	1
2-Nitroaniline	ND		ug/kg	790	--	1
3-Nitroaniline	ND		ug/kg	790	--	1
4-Nitroaniline	ND		ug/kg	790	--	1
Dibenzofuran	ND		ug/kg	790	--	1
2-Methylnaphthalene	ND		ug/kg	940	--	1
n-Nitrosodimethylamine	ND		ug/kg	1600	--	1
2,4,6-Trichlorophenol	ND		ug/kg	470	--	1
P-Chloro-M-Cresol	ND		ug/kg	790	--	1
2-Chlorophenol	ND		ug/kg	790	--	1
2,4-Dichlorophenol	ND		ug/kg	790	--	1
2,4-Dimethylphenol	ND		ug/kg	790	--	1
2-Nitrophenol	ND		ug/kg	1700	--	1
4-Nitrophenol	ND		ug/kg	1100	--	1
2,4-Dinitrophenol	ND		ug/kg	3800	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	2000	--	1
Pentachlorophenol	ND		ug/kg	630	--	1
Phenol	ND		ug/kg	790	--	1
2-Methylphenol	ND		ug/kg	790	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	1100	--	1
2,4,5-Trichlorophenol	ND		ug/kg	790	--	1
Benzoic Acid	ND		ug/kg	2500	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-01 Date Collected: 06/17/13 11:20

Client ID: RC-WC-061713-01 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	790	--	1
Carbazole	ND		ug/kg	790	--	1
Pyridine	ND		ug/kg	3100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		25-120
Phenol-d6	54		10-120
Nitrobenzene-d5	51		23-120
2-Fluorobiphenyl	55		30-120
2,4,6-Tribromophenol	62		0-136
4-Terphenyl-d14	64		18-120

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-02	Date Collected:	06/17/13 11:40
Client ID:	RC-WC-061713-02	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	06/18/13 02:17
Analytical Date:	06/22/13 00:37		
Analyst:	JB		
Percent Solids:	11%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	1100	--	1
Benzidine	ND		ug/kg	4800	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1400	--	1
Hexachlorobenzene	ND		ug/kg	850	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	1400	--	1
2-Chloronaphthalene	ND		ug/kg	1400	--	1
1,2-Dichlorobenzene	ND		ug/kg	1400	--	1
1,3-Dichlorobenzene	ND		ug/kg	1400	--	1
1,4-Dichlorobenzene	ND		ug/kg	1400	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	1400	--	1
2,4-Dinitrotoluene	ND		ug/kg	1400	--	1
2,6-Dinitrotoluene	ND		ug/kg	1400	--	1
Azobenzene	ND		ug/kg	1400	--	1
Fluoranthene	ND		ug/kg	850	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	1400	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	1400	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	1700	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	1400	--	1
Hexachlorobutadiene	ND		ug/kg	1400	--	1
Hexachlorocyclopentadiene	ND		ug/kg	4000	--	1
Hexachloroethane	ND		ug/kg	1100	--	1
Isophorone	ND		ug/kg	1400	--	1
Naphthalene	ND		ug/kg	1400	--	1
Nitrobenzene	ND		ug/kg	1400	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	1100	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	1400	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	1400	--	1
Butyl benzyl phthalate	ND		ug/kg	1400	--	1
Di-n-butylphthalate	ND		ug/kg	1400	--	1
Di-n-octylphthalate	ND		ug/kg	1400	--	1
Diethyl phthalate	ND		ug/kg	1400	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-02 Date Collected: 06/17/13 11:40

Client ID: RC-WC-061713-02 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	1400	--	1
Benzo(a)anthracene	ND		ug/kg	850	--	1
Benzo(a)pyrene	ND		ug/kg	1100	--	1
Benzo(b)fluoranthene	ND		ug/kg	850	--	1
Benzo(k)fluoranthene	ND		ug/kg	850	--	1
Chrysene	ND		ug/kg	850	--	1
Acenaphthylene	ND		ug/kg	1100	--	1
Anthracene	ND		ug/kg	850	--	1
Benzo(ghi)perylene	ND		ug/kg	1100	--	1
Fluorene	ND		ug/kg	1400	--	1
Phenanthrene	ND		ug/kg	850	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	850	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	1100	--	1
Pyrene	ND		ug/kg	850	--	1
Biphenyl	ND		ug/kg	3100	--	1
Aniline	ND		ug/kg	1700	--	1
4-Chloroaniline	ND		ug/kg	1400	--	1
1-Methylnaphthalene	ND		ug/kg	1400	--	1
2-Nitroaniline	ND		ug/kg	1400	--	1
3-Nitroaniline	ND		ug/kg	1400	--	1
4-Nitroaniline	ND		ug/kg	1400	--	1
Dibenzofuran	ND		ug/kg	1400	--	1
2-Methylnaphthalene	ND		ug/kg	1700	--	1
n-Nitrosodimethylamine	ND		ug/kg	2800	--	1
2,4,6-Trichlorophenol	ND		ug/kg	850	--	1
P-Chloro-M-Cresol	ND		ug/kg	1400	--	1
2-Chlorophenol	ND		ug/kg	1400	--	1
2,4-Dichlorophenol	ND		ug/kg	1400	--	1
2,4-Dimethylphenol	ND		ug/kg	1400	--	1
2-Nitrophenol	ND		ug/kg	3100	--	1
4-Nitrophenol	ND		ug/kg	2000	--	1
2,4-Dinitrophenol	ND		ug/kg	6800	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	3700	--	1
Pentachlorophenol	ND		ug/kg	1100	--	1
Phenol	ND		ug/kg	1400	--	1
2-Methylphenol	ND		ug/kg	1400	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	2000	--	1
2,4,5-Trichlorophenol	ND		ug/kg	1400	--	1
Benzoic Acid	ND		ug/kg	4600	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-02 Date Collected: 06/17/13 11:40

Client ID: RC-WC-061713-02 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	1400	--	1
Carbazole	ND		ug/kg	1400	--	1
Pyridine	ND		ug/kg	5700	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	59		25-120
Phenol-d6	54		10-120
Nitrobenzene-d5	44		23-120
2-Fluorobiphenyl	52		30-120
2,4,6-Tribromophenol	58		0-136
4-Terphenyl-d14	45		18-120

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-03	Date Collected:	06/17/13 12:10
Client ID:	RC-WC-061713-03	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	06/18/13 02:17
Analytical Date:	06/22/13 01:05		
Analyst:	JB		
Percent Solids:	21%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	620	--	1
Benzidine	ND		ug/kg	2600	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	770	--	1
Hexachlorobenzene	ND		ug/kg	460	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	770	--	1
2-Chloronaphthalene	ND		ug/kg	770	--	1
1,2-Dichlorobenzene	ND		ug/kg	770	--	1
1,3-Dichlorobenzene	ND		ug/kg	770	--	1
1,4-Dichlorobenzene	ND		ug/kg	770	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	770	--	1
2,4-Dinitrotoluene	ND		ug/kg	770	--	1
2,6-Dinitrotoluene	ND		ug/kg	770	--	1
Azobenzene	ND		ug/kg	770	--	1
Fluoranthene	ND		ug/kg	460	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	770	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	770	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	920	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	770	--	1
Hexachlorobutadiene	ND		ug/kg	770	--	1
Hexachlorocyclopentadiene	ND		ug/kg	2200	--	1
Hexachloroethane	ND		ug/kg	620	--	1
Isophorone	ND		ug/kg	770	--	1
Naphthalene	ND		ug/kg	770	--	1
Nitrobenzene	ND		ug/kg	770	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	620	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	770	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	770	--	1
Butyl benzyl phthalate	ND		ug/kg	770	--	1
Di-n-butylphthalate	ND		ug/kg	770	--	1
Di-n-octylphthalate	ND		ug/kg	770	--	1
Diethyl phthalate	ND		ug/kg	770	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-03 Date Collected: 06/17/13 12:10

Client ID: RC-WC-061713-03 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	770	--	1
Benzo(a)anthracene	ND		ug/kg	460	--	1
Benzo(a)pyrene	ND		ug/kg	620	--	1
Benzo(b)fluoranthene	ND		ug/kg	460	--	1
Benzo(k)fluoranthene	ND		ug/kg	460	--	1
Chrysene	ND		ug/kg	460	--	1
Acenaphthylene	ND		ug/kg	620	--	1
Anthracene	ND		ug/kg	460	--	1
Benzo(ghi)perylene	ND		ug/kg	620	--	1
Fluorene	ND		ug/kg	770	--	1
Phenanthrene	ND		ug/kg	460	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	460	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	620	--	1
Pyrene	ND		ug/kg	460	--	1
Biphenyl	ND		ug/kg	1700	--	1
Aniline	ND		ug/kg	920	--	1
4-Chloroaniline	ND		ug/kg	770	--	1
1-Methylnaphthalene	ND		ug/kg	770	--	1
2-Nitroaniline	ND		ug/kg	770	--	1
3-Nitroaniline	ND		ug/kg	770	--	1
4-Nitroaniline	ND		ug/kg	770	--	1
Dibenzofuran	ND		ug/kg	770	--	1
2-Methylnaphthalene	ND		ug/kg	920	--	1
n-Nitrosodimethylamine	ND		ug/kg	1500	--	1
2,4,6-Trichlorophenol	ND		ug/kg	460	--	1
P-Chloro-M-Cresol	ND		ug/kg	770	--	1
2-Chlorophenol	ND		ug/kg	770	--	1
2,4-Dichlorophenol	ND		ug/kg	770	--	1
2,4-Dimethylphenol	ND		ug/kg	770	--	1
2-Nitrophenol	ND		ug/kg	1700	--	1
4-Nitrophenol	ND		ug/kg	1100	--	1
2,4-Dinitrophenol	ND		ug/kg	3700	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	2000	--	1
Pentachlorophenol	ND		ug/kg	620	--	1
Phenol	ND		ug/kg	770	--	1
2-Methylphenol	ND		ug/kg	770	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	1100	--	1
2,4,5-Trichlorophenol	ND		ug/kg	770	--	1
Benzoic Acid	ND		ug/kg	2500	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-03 Date Collected: 06/17/13 12:10

Client ID: RC-WC-061713-03 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	770	--	1
Carbazole	ND		ug/kg	770	--	1
Pyridine	ND		ug/kg	3100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		25-120
Phenol-d6	58		10-120
Nitrobenzene-d5	54		23-120
2-Fluorobiphenyl	57		30-120
2,4,6-Tribromophenol	56		0-136
4-Terphenyl-d14	57		18-120

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-04	Date Collected:	06/17/13 12:35
Client ID:	RC-WC-061713-04	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	06/18/13 02:17
Analytical Date:	06/22/13 01:33		
Analyst:	JB		
Percent Solids:	6%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	2100	--	1
Benzidine	ND		ug/kg	8800	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2600	--	1
Hexachlorobenzene	ND		ug/kg	1600	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	2600	--	1
2-Chloronaphthalene	ND		ug/kg	2600	--	1
1,2-Dichlorobenzene	ND		ug/kg	2600	--	1
1,3-Dichlorobenzene	ND		ug/kg	2600	--	1
1,4-Dichlorobenzene	ND		ug/kg	2600	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	2600	--	1
2,4-Dinitrotoluene	ND		ug/kg	2600	--	1
2,6-Dinitrotoluene	ND		ug/kg	2600	--	1
Azobenzene	ND		ug/kg	2600	--	1
Fluoranthene	ND		ug/kg	1600	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	2600	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	2600	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	3100	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	2600	--	1
Hexachlorobutadiene	ND		ug/kg	2600	--	1
Hexachlorocyclopentadiene	ND		ug/kg	7200	--	1
Hexachloroethane	ND		ug/kg	2100	--	1
Isophorone	ND		ug/kg	2600	--	1
Naphthalene	ND		ug/kg	2600	--	1
Nitrobenzene	ND		ug/kg	2600	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	2100	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	2600	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	2600	--	1
Butyl benzyl phthalate	ND		ug/kg	2600	--	1
Di-n-butylphthalate	ND		ug/kg	2600	--	1
Di-n-octylphthalate	ND		ug/kg	2600	--	1
Diethyl phthalate	ND		ug/kg	2600	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-04 Date Collected: 06/17/13 12:35

Client ID: RC-WC-061713-04 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	2600	--	1
Benzo(a)anthracene	ND		ug/kg	1600	--	1
Benzo(a)pyrene	ND		ug/kg	2100	--	1
Benzo(b)fluoranthene	ND		ug/kg	1600	--	1
Benzo(k)fluoranthene	ND		ug/kg	1600	--	1
Chrysene	ND		ug/kg	1600	--	1
Acenaphthylene	ND		ug/kg	2100	--	1
Anthracene	ND		ug/kg	1600	--	1
Benzo(ghi)perylene	ND		ug/kg	2100	--	1
Fluorene	ND		ug/kg	2600	--	1
Phenanthrene	ND		ug/kg	1600	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	1600	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	2100	--	1
Pyrene	ND		ug/kg	1600	--	1
Biphenyl	ND		ug/kg	5700	--	1
Aniline	ND		ug/kg	3100	--	1
4-Chloroaniline	ND		ug/kg	2600	--	1
1-Methylnaphthalene	ND		ug/kg	2600	--	1
2-Nitroaniline	ND		ug/kg	2600	--	1
3-Nitroaniline	ND		ug/kg	2600	--	1
4-Nitroaniline	ND		ug/kg	2600	--	1
Dibenzofuran	ND		ug/kg	2600	--	1
2-Methylnaphthalene	ND		ug/kg	3100	--	1
n-Nitrosodimethylamine	ND		ug/kg	5200	--	1
2,4,6-Trichlorophenol	ND		ug/kg	1600	--	1
P-Chloro-M-Cresol	ND		ug/kg	2600	--	1
2-Chlorophenol	ND		ug/kg	2600	--	1
2,4-Dichlorophenol	ND		ug/kg	2600	--	1
2,4-Dimethylphenol	ND		ug/kg	2600	--	1
2-Nitrophenol	ND		ug/kg	5700	--	1
4-Nitrophenol	ND		ug/kg	3600	--	1
2,4-Dinitrophenol	ND		ug/kg	12000	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	6700	--	1
Pentachlorophenol	ND		ug/kg	2100	--	1
Phenol	ND		ug/kg	2600	--	1
2-Methylphenol	ND		ug/kg	2600	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	3600	--	1
2,4,5-Trichlorophenol	ND		ug/kg	2600	--	1
Benzoic Acid	ND		ug/kg	8300	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-04 Date Collected: 06/17/13 12:35

Client ID: RC-WC-061713-04 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	2600	--	1
Carbazole	ND		ug/kg	2600	--	1
Pyridine	ND		ug/kg	10000	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		25-120
Phenol-d6	50		10-120
Nitrobenzene-d5	44		23-120
2-Fluorobiphenyl	38		30-120
2,4,6-Tribromophenol	44		0-136
4-Terphenyl-d14	33		18-120

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-05	Date Collected:	06/17/13 13:10
Client ID:	RC-WC-061713-05	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	06/18/13 02:17
Analytical Date:	06/22/13 02:01		
Analyst:	JB		
Percent Solids:	9%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	1500	--	1
Benzidine	ND		ug/kg	6200	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1800	--	1
Hexachlorobenzene	ND		ug/kg	1100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	1800	--	1
2-Chloronaphthalene	ND		ug/kg	1800	--	1
1,2-Dichlorobenzene	ND		ug/kg	1800	--	1
1,3-Dichlorobenzene	ND		ug/kg	1800	--	1
1,4-Dichlorobenzene	ND		ug/kg	1800	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	1800	--	1
2,4-Dinitrotoluene	ND		ug/kg	1800	--	1
2,6-Dinitrotoluene	ND		ug/kg	1800	--	1
Azobenzene	ND		ug/kg	1800	--	1
Fluoranthene	ND		ug/kg	1100	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	1800	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	1800	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	2200	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	1800	--	1
Hexachlorobutadiene	ND		ug/kg	1800	--	1
Hexachlorocyclopentadiene	ND		ug/kg	5100	--	1
Hexachloroethane	ND		ug/kg	1500	--	1
Isophorone	ND		ug/kg	1800	--	1
Naphthalene	ND		ug/kg	1800	--	1
Nitrobenzene	ND		ug/kg	1800	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	1500	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	1800	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	1800	--	1
Butyl benzyl phthalate	ND		ug/kg	1800	--	1
Di-n-butylphthalate	ND		ug/kg	1800	--	1
Di-n-octylphthalate	ND		ug/kg	1800	--	1
Diethyl phthalate	ND		ug/kg	1800	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-05 Date Collected: 06/17/13 13:10

Client ID: RC-WC-061713-05 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	1800	--	1
Benzo(a)anthracene	ND		ug/kg	1100	--	1
Benzo(a)pyrene	ND		ug/kg	1500	--	1
Benzo(b)fluoranthene	ND		ug/kg	1100	--	1
Benzo(k)fluoranthene	ND		ug/kg	1100	--	1
Chrysene	ND		ug/kg	1100	--	1
Acenaphthylene	ND		ug/kg	1500	--	1
Anthracene	ND		ug/kg	1100	--	1
Benzo(ghi)perylene	ND		ug/kg	1500	--	1
Fluorene	ND		ug/kg	1800	--	1
Phenanthrene	ND		ug/kg	1100	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	1100	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	1500	--	1
Pyrene	ND		ug/kg	1100	--	1
Biphenyl	ND		ug/kg	4000	--	1
Aniline	ND		ug/kg	2200	--	1
4-Chloroaniline	ND		ug/kg	1800	--	1
1-Methylnaphthalene	ND		ug/kg	1800	--	1
2-Nitroaniline	ND		ug/kg	1800	--	1
3-Nitroaniline	ND		ug/kg	1800	--	1
4-Nitroaniline	ND		ug/kg	1800	--	1
Dibenzofuran	ND		ug/kg	1800	--	1
2-Methylnaphthalene	ND		ug/kg	2200	--	1
n-Nitrosodimethylamine	ND		ug/kg	3700	--	1
2,4,6-Trichlorophenol	ND		ug/kg	1100	--	1
P-Chloro-M-Cresol	ND		ug/kg	1800	--	1
2-Chlorophenol	ND		ug/kg	1800	--	1
2,4-Dichlorophenol	ND		ug/kg	1800	--	1
2,4-Dimethylphenol	ND		ug/kg	1800	--	1
2-Nitrophenol	ND		ug/kg	4000	--	1
4-Nitrophenol	ND		ug/kg	2600	--	1
2,4-Dinitrophenol	ND		ug/kg	8800	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	4800	--	1
Pentachlorophenol	ND		ug/kg	1500	--	1
Phenol	ND		ug/kg	1800	--	1
2-Methylphenol	ND		ug/kg	1800	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	2600	--	1
2,4,5-Trichlorophenol	ND		ug/kg	1800	--	1
Benzoic Acid	ND		ug/kg	5900	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-05 Date Collected: 06/17/13 13:10

Client ID: RC-WC-061713-05 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	1800	--	1
Carbazole	ND		ug/kg	1800	--	1
Pyridine	ND		ug/kg	7400	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		25-120
Phenol-d6	51		10-120
Nitrobenzene-d5	48		23-120
2-Fluorobiphenyl	43		30-120
2,4,6-Tribromophenol	56		0-136
4-Terphenyl-d14	46		18-120

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-06	Date Collected:	06/17/13 13:30
Client ID:	RC-WC-061713-06	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	06/18/13 02:17
Analytical Date:	06/22/13 02:29		
Analyst:	JB		
Percent Solids:	27%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	490	--	1
Benzidine	ND		ug/kg	2100	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	610	--	1
Hexachlorobenzene	ND		ug/kg	370	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	610	--	1
2-Chloronaphthalene	ND		ug/kg	610	--	1
1,2-Dichlorobenzene	ND		ug/kg	610	--	1
1,3-Dichlorobenzene	ND		ug/kg	610	--	1
1,4-Dichlorobenzene	ND		ug/kg	610	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	610	--	1
2,4-Dinitrotoluene	ND		ug/kg	610	--	1
2,6-Dinitrotoluene	ND		ug/kg	610	--	1
Azobenzene	ND		ug/kg	610	--	1
Fluoranthene	ND		ug/kg	370	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	610	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	610	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	730	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	610	--	1
Hexachlorobutadiene	ND		ug/kg	610	--	1
Hexachlorocyclopentadiene	ND		ug/kg	1700	--	1
Hexachloroethane	ND		ug/kg	490	--	1
Isophorone	ND		ug/kg	610	--	1
Naphthalene	ND		ug/kg	610	--	1
Nitrobenzene	ND		ug/kg	610	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	490	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	610	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	610	--	1
Butyl benzyl phthalate	ND		ug/kg	610	--	1
Di-n-butylphthalate	ND		ug/kg	610	--	1
Di-n-octylphthalate	ND		ug/kg	610	--	1
Diethyl phthalate	ND		ug/kg	610	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-06 Date Collected: 06/17/13 13:30

Client ID: RC-WC-061713-06 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	610	--	1
Benzo(a)anthracene	ND		ug/kg	370	--	1
Benzo(a)pyrene	ND		ug/kg	490	--	1
Benzo(b)fluoranthene	ND		ug/kg	370	--	1
Benzo(k)fluoranthene	ND		ug/kg	370	--	1
Chrysene	ND		ug/kg	370	--	1
Acenaphthylene	ND		ug/kg	490	--	1
Anthracene	ND		ug/kg	370	--	1
Benzo(ghi)perylene	ND		ug/kg	490	--	1
Fluorene	ND		ug/kg	610	--	1
Phenanthrene	ND		ug/kg	370	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	370	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	490	--	1
Pyrene	ND		ug/kg	370	--	1
Biphenyl	ND		ug/kg	1300	--	1
Aniline	ND		ug/kg	730	--	1
4-Chloroaniline	ND		ug/kg	610	--	1
1-Methylnaphthalene	ND		ug/kg	610	--	1
2-Nitroaniline	ND		ug/kg	610	--	1
3-Nitroaniline	ND		ug/kg	610	--	1
4-Nitroaniline	ND		ug/kg	610	--	1
Dibenzofuran	ND		ug/kg	610	--	1
2-Methylnaphthalene	ND		ug/kg	730	--	1
n-Nitrosodimethylamine	ND		ug/kg	1200	--	1
2,4,6-Trichlorophenol	ND		ug/kg	370	--	1
P-Chloro-M-Cresol	ND		ug/kg	610	--	1
2-Chlorophenol	ND		ug/kg	610	--	1
2,4-Dichlorophenol	ND		ug/kg	610	--	1
2,4-Dimethylphenol	ND		ug/kg	610	--	1
2-Nitrophenol	ND		ug/kg	1300	--	1
4-Nitrophenol	ND		ug/kg	850	--	1
2,4-Dinitrophenol	ND		ug/kg	2900	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	1600	--	1
Pentachlorophenol	ND		ug/kg	490	--	1
Phenol	ND		ug/kg	610	--	1
2-Methylphenol	ND		ug/kg	610	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	850	--	1
2,4,5-Trichlorophenol	ND		ug/kg	610	--	1
Benzoic Acid	ND		ug/kg	2000	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-06 Date Collected: 06/17/13 13:30

Client ID: RC-WC-061713-06 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	610	--	1
Carbazole	ND		ug/kg	610	--	1
Pyridine	ND		ug/kg	2400	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	71		25-120
Phenol-d6	66		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	64		30-120
2,4,6-Tribromophenol	71		0-136
4-Terphenyl-d14	62		18-120

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-07	Date Collected:	06/17/13 13:45
Client ID:	RC-WC-061713-07	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	06/18/13 02:17
Analytical Date:	06/22/13 02:57		
Analyst:	JB		
Percent Solids:	9%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	1500	--	1
Benzidine	ND		ug/kg	6200	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1800	--	1
Hexachlorobenzene	ND		ug/kg	1100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	1800	--	1
2-Chloronaphthalene	ND		ug/kg	1800	--	1
1,2-Dichlorobenzene	ND		ug/kg	1800	--	1
1,3-Dichlorobenzene	ND		ug/kg	1800	--	1
1,4-Dichlorobenzene	ND		ug/kg	1800	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	1800	--	1
2,4-Dinitrotoluene	ND		ug/kg	1800	--	1
2,6-Dinitrotoluene	ND		ug/kg	1800	--	1
Azobenzene	ND		ug/kg	1800	--	1
Fluoranthene	ND		ug/kg	1100	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	1800	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	1800	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	2200	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	1800	--	1
Hexachlorobutadiene	ND		ug/kg	1800	--	1
Hexachlorocyclopentadiene	ND		ug/kg	5100	--	1
Hexachloroethane	ND		ug/kg	1500	--	1
Isophorone	ND		ug/kg	1800	--	1
Naphthalene	ND		ug/kg	1800	--	1
Nitrobenzene	ND		ug/kg	1800	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	1500	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	1800	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	1800	--	1
Butyl benzyl phthalate	ND		ug/kg	1800	--	1
Di-n-butylphthalate	ND		ug/kg	1800	--	1
Di-n-octylphthalate	ND		ug/kg	1800	--	1
Diethyl phthalate	ND		ug/kg	1800	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-07 Date Collected: 06/17/13 13:45

Client ID: RC-WC-061713-07 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	1800	--	1
Benzo(a)anthracene	ND		ug/kg	1100	--	1
Benzo(a)pyrene	ND		ug/kg	1500	--	1
Benzo(b)fluoranthene	ND		ug/kg	1100	--	1
Benzo(k)fluoranthene	ND		ug/kg	1100	--	1
Chrysene	ND		ug/kg	1100	--	1
Acenaphthylene	ND		ug/kg	1500	--	1
Anthracene	ND		ug/kg	1100	--	1
Benzo(ghi)perylene	ND		ug/kg	1500	--	1
Fluorene	ND		ug/kg	1800	--	1
Phenanthrene	ND		ug/kg	1100	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	1100	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	1500	--	1
Pyrene	ND		ug/kg	1100	--	1
Biphenyl	ND		ug/kg	4000	--	1
Aniline	ND		ug/kg	2200	--	1
4-Chloroaniline	ND		ug/kg	1800	--	1
1-Methylnaphthalene	ND		ug/kg	1800	--	1
2-Nitroaniline	ND		ug/kg	1800	--	1
3-Nitroaniline	ND		ug/kg	1800	--	1
4-Nitroaniline	ND		ug/kg	1800	--	1
Dibenzofuran	ND		ug/kg	1800	--	1
2-Methylnaphthalene	ND		ug/kg	2200	--	1
n-Nitrosodimethylamine	ND		ug/kg	3600	--	1
2,4,6-Trichlorophenol	ND		ug/kg	1100	--	1
P-Chloro-M-Cresol	ND		ug/kg	1800	--	1
2-Chlorophenol	ND		ug/kg	1800	--	1
2,4-Dichlorophenol	ND		ug/kg	1800	--	1
2,4-Dimethylphenol	ND		ug/kg	1800	--	1
2-Nitrophenol	ND		ug/kg	4000	--	1
4-Nitrophenol	ND		ug/kg	2600	--	1
2,4-Dinitrophenol	ND		ug/kg	8800	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	4800	--	1
Pentachlorophenol	ND		ug/kg	1500	--	1
Phenol	ND		ug/kg	1800	--	1
2-Methylphenol	ND		ug/kg	1800	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	2600	--	1
2,4,5-Trichlorophenol	ND		ug/kg	1800	--	1
Benzoic Acid	ND		ug/kg	5800	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-07 Date Collected: 06/17/13 13:45

Client ID: RC-WC-061713-07 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	1800	--	1
Carbazole	ND		ug/kg	1800	--	1
Pyridine	ND		ug/kg	7300	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		25-120
Phenol-d6	62		10-120
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	62		30-120
2,4,6-Tribromophenol	70		0-136
4-Terphenyl-d14	73		18-120

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-08	Date Collected:	06/17/13 14:10
Client ID:	RC-WC-061713-08	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	06/18/13 02:17
Analytical Date:	06/22/13 03:25		
Analyst:	JB		
Percent Solids:	10%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	1300	--	1
Benzidine	ND		ug/kg	5600	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1600	--	1
Hexachlorobenzene	ND		ug/kg	980	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	1600	--	1
2-Chloronaphthalene	ND		ug/kg	1600	--	1
1,2-Dichlorobenzene	ND		ug/kg	1600	--	1
1,3-Dichlorobenzene	ND		ug/kg	1600	--	1
1,4-Dichlorobenzene	ND		ug/kg	1600	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	1600	--	1
2,4-Dinitrotoluene	ND		ug/kg	1600	--	1
2,6-Dinitrotoluene	ND		ug/kg	1600	--	1
Azobenzene	ND		ug/kg	1600	--	1
Fluoranthene	ND		ug/kg	980	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	1600	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	1600	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	2000	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	1600	--	1
Hexachlorobutadiene	ND		ug/kg	1600	--	1
Hexachlorocyclopentadiene	ND		ug/kg	4600	--	1
Hexachloroethane	ND		ug/kg	1300	--	1
Isophorone	ND		ug/kg	1600	--	1
Naphthalene	ND		ug/kg	1600	--	1
Nitrobenzene	ND		ug/kg	1600	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	1300	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	1600	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	1600	--	1
Butyl benzyl phthalate	ND		ug/kg	1600	--	1
Di-n-butylphthalate	ND		ug/kg	1600	--	1
Di-n-octylphthalate	ND		ug/kg	1600	--	1
Diethyl phthalate	ND		ug/kg	1600	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-08 Date Collected: 06/17/13 14:10

Client ID: RC-WC-061713-08 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	1600	--	1
Benzo(a)anthracene	ND		ug/kg	980	--	1
Benzo(a)pyrene	ND		ug/kg	1300	--	1
Benzo(b)fluoranthene	ND		ug/kg	980	--	1
Benzo(k)fluoranthene	ND		ug/kg	980	--	1
Chrysene	ND		ug/kg	980	--	1
Acenaphthylene	ND		ug/kg	1300	--	1
Anthracene	ND		ug/kg	980	--	1
Benzo(ghi)perylene	ND		ug/kg	1300	--	1
Fluorene	ND		ug/kg	1600	--	1
Phenanthrene	ND		ug/kg	980	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	980	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	1300	--	1
Pyrene	ND		ug/kg	980	--	1
Biphenyl	ND		ug/kg	3600	--	1
Aniline	ND		ug/kg	2000	--	1
4-Chloroaniline	ND		ug/kg	1600	--	1
1-Methylnaphthalene	ND		ug/kg	1600	--	1
2-Nitroaniline	ND		ug/kg	1600	--	1
3-Nitroaniline	ND		ug/kg	1600	--	1
4-Nitroaniline	ND		ug/kg	1600	--	1
Dibenzofuran	ND		ug/kg	1600	--	1
2-Methylnaphthalene	ND		ug/kg	2000	--	1
n-Nitrosodimethylamine	ND		ug/kg	3300	--	1
2,4,6-Trichlorophenol	ND		ug/kg	980	--	1
P-Chloro-M-Cresol	ND		ug/kg	1600	--	1
2-Chlorophenol	ND		ug/kg	1600	--	1
2,4-Dichlorophenol	ND		ug/kg	1600	--	1
2,4-Dimethylphenol	ND		ug/kg	1600	--	1
2-Nitrophenol	ND		ug/kg	3600	--	1
4-Nitrophenol	ND		ug/kg	2300	--	1
2,4-Dinitrophenol	ND		ug/kg	7900	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	4300	--	1
Pentachlorophenol	ND		ug/kg	1300	--	1
Phenol	ND		ug/kg	1600	--	1
2-Methylphenol	ND		ug/kg	1600	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	2300	--	1
2,4,5-Trichlorophenol	ND		ug/kg	1600	--	1
Benzoic Acid	ND		ug/kg	5200	--	1

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-08 Date Collected: 06/17/13 14:10

Client ID: RC-WC-061713-08 Date Received: 06/17/13

Sample Location: DEVENS, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	1600	--	1
Carbazole	ND		ug/kg	1600	--	1
Pyridine	ND		ug/kg	6600	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		25-120
Phenol-d6	56		10-120
Nitrobenzene-d5	51		23-120
2-Fluorobiphenyl	43		30-120
2,4,6-Tribromophenol	60		0-136
4-Terphenyl-d14	37		18-120

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/18/13 18:41
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 06/18/13 02:17

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG615608-1					
Acenaphthene	ND		ug/kg	130	--
Benzidine	ND		ug/kg	560	--
1,2,4-Trichlorobenzene	ND		ug/kg	170	--
Hexachlorobenzene	ND		ug/kg	100	--
Bis(2-chloroethyl)ether	ND		ug/kg	170	--
2-Chloronaphthalene	ND		ug/kg	170	--
1,2-Dichlorobenzene	ND		ug/kg	170	--
1,3-Dichlorobenzene	ND		ug/kg	170	--
1,4-Dichlorobenzene	ND		ug/kg	170	--
3,3'-Dichlorobenzidine	ND		ug/kg	170	--
2,4-Dinitrotoluene	ND		ug/kg	170	--
2,6-Dinitrotoluene	ND		ug/kg	170	--
Azobenzene	ND		ug/kg	170	--
Fluoranthene	ND		ug/kg	100	--
4-Chlorophenyl phenyl ether	ND		ug/kg	170	--
4-Bromophenyl phenyl ether	ND		ug/kg	170	--
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--
Bis(2-chloroethoxy)methane	ND		ug/kg	170	--
Hexachlorobutadiene	ND		ug/kg	170	--
Hexachlorocyclopentadiene	ND		ug/kg	460	--
Hexachloroethane	ND		ug/kg	130	--
Isophorone	ND		ug/kg	170	--
Naphthalene	ND		ug/kg	170	--
Nitrobenzene	ND		ug/kg	170	--
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	130	--
n-Nitrosodi-n-propylamine	ND		ug/kg	170	--
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	170	--
Butyl benzyl phthalate	ND		ug/kg	170	--
Di-n-butylphthalate	ND		ug/kg	170	--
Di-n-octylphthalate	ND		ug/kg	170	--
Diethyl phthalate	ND		ug/kg	170	--

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/18/13 18:41
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 06/18/13 02:17

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG615608-1					
Dimethyl phthalate	ND		ug/kg	170	--
Benzo(a)anthracene	ND		ug/kg	100	--
Benzo(a)pyrene	ND		ug/kg	130	--
Benzo(b)fluoranthene	ND		ug/kg	100	--
Benzo(k)fluoranthene	ND		ug/kg	100	--
Chrysene	ND		ug/kg	100	--
Acenaphthylene	ND		ug/kg	130	--
Anthracene	ND		ug/kg	100	--
Benzo(ghi)perylene	ND		ug/kg	130	--
Fluorene	ND		ug/kg	170	--
Phenanthrene	ND		ug/kg	100	--
Dibenzo(a,h)anthracene	ND		ug/kg	100	--
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	130	--
Pyrene	ND		ug/kg	100	--
Biphenyl	ND		ug/kg	360	--
Aniline	ND		ug/kg	200	--
4-Chloroaniline	ND		ug/kg	170	--
1-Methylnaphthalene	ND		ug/kg	170	--
2-Nitroaniline	ND		ug/kg	170	--
3-Nitroaniline	ND		ug/kg	170	--
4-Nitroaniline	ND		ug/kg	170	--
Dibenzofuran	ND		ug/kg	170	--
2-Methylnaphthalene	ND		ug/kg	200	--
n-Nitrosodimethylamine	ND		ug/kg	330	--
2,4,6-Trichlorophenol	ND		ug/kg	100	--
P-Chloro-M-Cresol	ND		ug/kg	170	--
2-Chlorophenol	ND		ug/kg	170	--
2,4-Dichlorophenol	ND		ug/kg	170	--
2,4-Dimethylphenol	ND		ug/kg	170	--
2-Nitrophenol	ND		ug/kg	360	--
4-Nitrophenol	ND		ug/kg	230	--

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/18/13 18:41
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 06/18/13 02:17

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG615608-1					
2,4-Dinitrophenol	ND		ug/kg	800	--
4,6-Dinitro-o-cresol	ND		ug/kg	430	--
Pentachlorophenol	ND		ug/kg	130	--
Phenol	ND		ug/kg	170	--
2-Methylphenol	ND		ug/kg	170	--
3-Methylphenol/4-Methylphenol	ND		ug/kg	230	--
2,4,5-Trichlorophenol	ND		ug/kg	170	--
Benzoic Acid	ND		ug/kg	530	--
Benzyl Alcohol	ND		ug/kg	170	--
Carbazole	ND		ug/kg	170	--
Pyridine	ND		ug/kg	660	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		25-120
Phenol-d6	61		10-120
Nitrobenzene-d5	57		23-120
2-Fluorobiphenyl	61		30-120
2,4,6-Tribromophenol	54		0-136
4-Terphenyl-d14	69		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG615608-2 WG615608-3								
Acenaphthene	71		72		31-137	1		50
Benzidine	36		34		10-66	6		50
1,2,4-Trichlorobenzene	67		67		38-107	0		50
Hexachlorobenzene	74		72		40-140	3		50
Bis(2-chloroethyl)ether	62		63		40-140	2		50
2-Chloronaphthalene	76		74		40-140	3		50
1,2-Dichlorobenzene	64		64		40-140	0		50
1,3-Dichlorobenzene	64		65		40-140	2		50
1,4-Dichlorobenzene	65		65		28-104	0		50
3,3'-Dichlorobenzidine	61		60		40-140	2		50
2,4-Dinitrotoluene	84		85		28-89	1		50
2,6-Dinitrotoluene	88		84		40-140	5		50
Azobenzene	78		77		40-140	1		50
Fluoranthene	79		79		40-140	0		50
4-Chlorophenyl phenyl ether	76		75		40-140	1		50
4-Bromophenyl phenyl ether	76		76		40-140	0		50
Bis(2-chloroisopropyl)ether	60		61		40-140	2		50
Bis(2-chloroethoxy)methane	69		69		40-117	0		50
Hexachlorobutadiene	69		68		40-140	1		50
Hexachlorocyclopentadiene	68		64		40-140	6		50
Hexachloroethane	65		64		40-140	2		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG615608-2 WG615608-3								
Isophorone	71		69		40-140	3		50
Naphthalene	68		68		40-140	0		50
Nitrobenzene	69		67		40-140	3		50
NitrosoDiPhenylAmine(NDPA)/DPA	79		78		36-157	1		50
n-Nitrosodi-n-propylamine	71		68		32-121	4		50
Bis(2-Ethylhexyl)phthalate	81		80		40-140	1		50
Butyl benzyl phthalate	86		86		40-140	0		50
Di-n-butylphthalate	81		81		40-140	0		50
Di-n-octylphthalate	87		89		40-140	2		50
Diethyl phthalate	77		78		40-140	1		50
Dimethyl phthalate	76		76		40-140	0		50
Benzo(a)anthracene	76		77		40-140	1		50
Benzo(a)pyrene	78		73		40-140	7		50
Benzo(b)fluoranthene	72		74		40-140	3		50
Benzo(k)fluoranthene	79		78		40-140	1		50
Chrysene	74		75		40-140	1		50
Acenaphthylene	79		78		40-140	1		50
Anthracene	79		79		40-140	0		50
Benzo(ghi)perylene	78		80		40-140	3		50
Fluorene	77		76		40-140	1		50
Phenanthrene	77		77		40-140	0		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG615608-2 WG615608-3								
Dibenzo(a,h)anthracene	81		82		40-140	1		50
Indeno(1,2,3-cd)Pyrene	80		81		40-140	1		50
Pyrene	78		79		35-142	1		50
Biphenyl	70		70		54-104	0		50
Aniline	46		44		40-140	4		50
4-Chloroaniline	50		47		40-140	6		50
1-Methylnaphthalene	75		74		26-130	1		50
2-Nitroaniline	82		82		47-134	0		50
3-Nitroaniline	51		51		26-129	0		50
4-Nitroaniline	72		72		41-125	0		50
Dibenzofuran	76		74		40-140	3		50
2-Methylnaphthalene	72		70		40-140	3		50
n-Nitrosodimethylamine	60		59		22-100	2		50
2,4,6-Trichlorophenol	80		80		30-130	0		50
P-Chloro-M-Cresol	82		80		26-103	2		50
2-Chlorophenol	70		68		25-102	3		50
2,4-Dichlorophenol	76		76		30-130	0		50
2,4-Dimethylphenol	79		78		30-130	1		50
2-Nitrophenol	70		69		30-130	1		50
4-Nitrophenol	88		88		11-114	0		50
2,4-Dinitrophenol	54		51		4-130	6		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG615608-2 WG615608-3								
4,6-Dinitro-o-cresol	75		74		10-130	1		50
Pentachlorophenol	61		61		17-109	0		50
Phenol	64		69		26-90	8		50
2-Methylphenol	72		70		30-130.	3		50
3-Methylphenol/4-Methylphenol	74		73		30-130	1		50
2,4,5-Trichlorophenol	83		82		30-130	1		50
Benzoic Acid	46		45		10-110	2		50
Benzyl Alcohol	74		73		40-140	1		50
Carbazole	78		78		54-128	0		50
Pyridine	51		52		10-93	2		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	69		66		25-120
Phenol-d6	75		73		10-120
Nitrobenzene-d5	70		68		23-120
2-Fluorobiphenyl	76		73		30-120
2,4,6-Tribromophenol	78		77		0-136
4-Terphenyl-d14	79		79		18-120

PETROLEUM HYDROCARBONS

Project Name: FORT DEVENS
Lab Number: L1311048
Project Number: AC001.005
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-01	Date Collected:	06/17/13 11:20
Client ID:	RC-WC-061713-01	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	06/25/13 00:33
Analytical Date:	06/25/13 10:33		
Analyst:	AR		
Percent Solids:	21%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	158000		ug/kg	151000	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	71		40-140

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-02	Date Collected:	06/17/13 11:40
Client ID:	RC-WC-061713-02	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	06/25/13 00:33
Analytical Date:	06/25/13 11:06		
Analyst:	AR		
Percent Solids:	11%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	ND		ug/kg	281000	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	69		40-140

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-03	Date Collected:	06/17/13 12:10
Client ID:	RC-WC-061713-03	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	06/25/13 00:33
Analytical Date:	06/25/13 11:38		
Analyst:	AR		
Percent Solids:	21%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	ND		ug/kg	156000	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	81		40-140

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-04	Date Collected:	06/17/13 12:35
Client ID:	RC-WC-061713-04	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	06/25/13 14:37
Analytical Date:	06/26/13 11:16		
Analyst:	AR		
Percent Solids:	6%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	ND		ug/kg	514000	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	59		40-140

Project Name: FORT DEVENS
Lab Number: L1311048
Project Number: AC001.005
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-05	Date Collected:	06/17/13 13:10
Client ID:	RC-WC-061713-05	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	06/25/13 00:33
Analytical Date:	06/25/13 10:33		
Analyst:	AR		
Percent Solids:	9%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	ND		ug/kg	366000	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	67		40-140

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-06	Date Collected:	06/17/13 13:30
Client ID:	RC-WC-061713-06	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	06/25/13 00:33
Analytical Date:	06/25/13 11:06		
Analyst:	AR		
Percent Solids:	27%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	ND		ug/kg	120000	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	80		40-140

Project Name: FORT DEVENS
Lab Number: L1311048
Project Number: AC001.005
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-07	Date Collected:	06/17/13 13:45
Client ID:	RC-WC-061713-07	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	06/25/13 00:33
Analytical Date:	06/25/13 11:38		
Analyst:	AR		
Percent Solids:	9%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	501000		ug/kg	357000	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	77		40-140

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-08	Date Collected:	06/17/13 14:10
Client ID:	RC-WC-061713-08	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	06/25/13 00:33
Analytical Date:	06/25/13 12:11		
Analyst:	AR		
Percent Solids:	10%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	ND		ug/kg	328000	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	80		40-140

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015C(M)
Analytical Date: 06/25/13 09:26
Analyst: AR

Extraction Method: EPA 3546
Extraction Date: 06/25/13 00:33

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 01-03,05-08 Batch: WG617250-1					
TPH	ND		ug/kg	33100	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	80		40-140

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015C(M)
Analytical Date: 06/26/13 09:38
Analyst: AR

Extraction Method: EPA 3546
Extraction Date: 06/25/13 14:37

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 04 Batch: WG617482-1					
TPH	ND		ug/kg	32700	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	83		40-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-03,05-08 Batch: WG617250-2								
TPH	101		-		40-140	-		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	90				40-140

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 04 Batch: WG617482-2								
TPH	100		-		40-140	-		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	90				40-140

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-03,05-08 QC Batch ID: WG617250-3 QC Sample: L1311679-01 Client ID: DUP Sample						
TPH	132000	116000	ug/kg	13		40

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	77		88		40-140

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 04 QC Batch ID: WG617482-3 QC Sample: L1311048-04 Client ID: RC-WC-061713-04						
TPH	ND	ND	ug/kg	NC		40

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	59		50		40-140

PCBS

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-01	Date Collected:	06/17/13 11:20
Client ID:	RC-WC-061713-01	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	06/18/13 00:46
Analytical Date:	06/18/13 21:25	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	06/18/13
Percent Solids:	21%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	06/18/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	153	--	1
Aroclor 1221	ND		ug/kg	153	--	1
Aroclor 1232	ND		ug/kg	153	--	1
Aroclor 1242	ND		ug/kg	153	--	1
Aroclor 1248	ND		ug/kg	153	--	1
Aroclor 1254	ND		ug/kg	153	--	1
Aroclor 1260	ND		ug/kg	153	--	1
Aroclor 1262	ND		ug/kg	153	--	1
Aroclor 1268	ND		ug/kg	153	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	33		30-150
Decachlorobiphenyl	37		30-150
2,4,5,6-Tetrachloro-m-xylene	32		30-150
Decachlorobiphenyl	34		30-150

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-02	Date Collected:	06/17/13 11:40
Client ID:	RC-WC-061713-02	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	06/18/13 00:46
Analytical Date:	06/18/13 21:39	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	06/18/13
Percent Solids:	11%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	06/18/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	279	--	1
Aroclor 1221	ND		ug/kg	279	--	1
Aroclor 1232	ND		ug/kg	279	--	1
Aroclor 1242	ND		ug/kg	279	--	1
Aroclor 1248	ND		ug/kg	279	--	1
Aroclor 1254	ND		ug/kg	279	--	1
Aroclor 1260	ND		ug/kg	279	--	1
Aroclor 1262	ND		ug/kg	279	--	1
Aroclor 1268	ND		ug/kg	279	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	68		30-150
Decachlorobiphenyl	68		30-150
2,4,5,6-Tetrachloro-m-xylene	65		30-150
Decachlorobiphenyl	62		30-150

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-03	Date Collected:	06/17/13 12:10
Client ID:	RC-WC-061713-03	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	06/18/13 00:46
Analytical Date:	06/18/13 21:52	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	06/18/13
Percent Solids:	21%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	06/18/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	152	--	1
Aroclor 1221	ND		ug/kg	152	--	1
Aroclor 1232	ND		ug/kg	152	--	1
Aroclor 1242	ND		ug/kg	152	--	1
Aroclor 1248	ND		ug/kg	152	--	1
Aroclor 1254	ND		ug/kg	152	--	1
Aroclor 1260	ND		ug/kg	152	--	1
Aroclor 1262	ND		ug/kg	152	--	1
Aroclor 1268	ND		ug/kg	152	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	57		30-150
Decachlorobiphenyl	55		30-150
2,4,5,6-Tetrachloro-m-xylene	55		30-150
Decachlorobiphenyl	50		30-150

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-04	Date Collected:	06/17/13 12:35
Client ID:	RC-WC-061713-04	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	06/18/13 00:46
Analytical Date:	06/18/13 22:05	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	06/18/13
Percent Solids:	6%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	06/18/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	498	--	1
Aroclor 1221	ND		ug/kg	498	--	1
Aroclor 1232	ND		ug/kg	498	--	1
Aroclor 1242	ND		ug/kg	498	--	1
Aroclor 1248	ND		ug/kg	498	--	1
Aroclor 1254	ND		ug/kg	498	--	1
Aroclor 1260	ND		ug/kg	498	--	1
Aroclor 1262	ND		ug/kg	498	--	1
Aroclor 1268	ND		ug/kg	498	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	64		30-150
Decachlorobiphenyl	62		30-150
2,4,5,6-Tetrachloro-m-xylene	62		30-150
Decachlorobiphenyl	58		30-150

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-05	Date Collected:	06/17/13 13:10
Client ID:	RC-WC-061713-05	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	06/18/13 00:46
Analytical Date:	06/18/13 22:18	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	06/18/13
Percent Solids:	9%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	06/18/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	356	--	1
Aroclor 1221	ND		ug/kg	356	--	1
Aroclor 1232	ND		ug/kg	356	--	1
Aroclor 1242	ND		ug/kg	356	--	1
Aroclor 1248	ND		ug/kg	356	--	1
Aroclor 1254	ND		ug/kg	356	--	1
Aroclor 1260	ND		ug/kg	356	--	1
Aroclor 1262	ND		ug/kg	356	--	1
Aroclor 1268	ND		ug/kg	356	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	65		30-150
Decachlorobiphenyl	63		30-150
2,4,5,6-Tetrachloro-m-xylene	61		30-150
Decachlorobiphenyl	56		30-150

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-06	Date Collected:	06/17/13 13:30
Client ID:	RC-WC-061713-06	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	06/22/13 01:41
Analytical Date:	06/22/13 17:09	Cleanup Method1:	EPA 3665A
Analyst:	TQ	Cleanup Date1:	06/22/13
Percent Solids:	27%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	06/22/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	120	--	1
Aroclor 1221	ND		ug/kg	120	--	1
Aroclor 1232	ND		ug/kg	120	--	1
Aroclor 1242	ND		ug/kg	120	--	1
Aroclor 1248	ND		ug/kg	120	--	1
Aroclor 1254	ND		ug/kg	120	--	1
Aroclor 1260	ND		ug/kg	120	--	1
Aroclor 1262	ND		ug/kg	120	--	1
Aroclor 1268	ND		ug/kg	120	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	67		30-150
Decachlorobiphenyl	71		30-150
2,4,5,6-Tetrachloro-m-xylene	64		30-150
Decachlorobiphenyl	63		30-150

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-07	Date Collected:	06/17/13 13:45
Client ID:	RC-WC-061713-07	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	06/18/13 00:46
Analytical Date:	06/18/13 22:45	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	06/18/13
Percent Solids:	9%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	06/18/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	1410	--	4
Aroclor 1221	ND		ug/kg	1410	--	4
Aroclor 1232	ND		ug/kg	1410	--	4
Aroclor 1242	ND		ug/kg	1410	--	4
Aroclor 1248	ND		ug/kg	1410	--	4
Aroclor 1254	ND		ug/kg	1410	--	4
Aroclor 1260	ND		ug/kg	1410	--	4
Aroclor 1262	ND		ug/kg	1410	--	4
Aroclor 1268	ND		ug/kg	1410	--	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	65		30-150
Decachlorobiphenyl	65		30-150
2,4,5,6-Tetrachloro-m-xylene	64		30-150
Decachlorobiphenyl	61		30-150

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-08	Date Collected:	06/17/13 14:10
Client ID:	RC-WC-061713-08	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	06/18/13 00:46
Analytical Date:	06/18/13 22:58	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	06/18/13
Percent Solids:	10%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	06/18/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	317	--	1
Aroclor 1221	ND		ug/kg	317	--	1
Aroclor 1232	ND		ug/kg	317	--	1
Aroclor 1242	ND		ug/kg	317	--	1
Aroclor 1248	ND		ug/kg	317	--	1
Aroclor 1254	ND		ug/kg	317	--	1
Aroclor 1260	ND		ug/kg	317	--	1
Aroclor 1262	ND		ug/kg	317	--	1
Aroclor 1268	ND		ug/kg	317	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	53		30-150
Decachlorobiphenyl	51		30-150
2,4,5,6-Tetrachloro-m-xylene	51		30-150
Decachlorobiphenyl	47		30-150

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 06/18/13 23:37
Analyst: KB

Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:46
Cleanup Method1: EPA 3665A
Cleanup Date1: 06/18/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 06/18/13

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 01-05,07-08 Batch: WG615593-1					
Aroclor 1016	ND		ug/kg	33.1	--
Aroclor 1221	ND		ug/kg	33.1	--
Aroclor 1232	ND		ug/kg	33.1	--
Aroclor 1242	ND		ug/kg	33.1	--
Aroclor 1248	ND		ug/kg	33.1	--
Aroclor 1254	ND		ug/kg	33.1	--
Aroclor 1260	ND		ug/kg	33.1	--
Aroclor 1262	ND		ug/kg	33.1	--
Aroclor 1268	ND		ug/kg	33.1	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	61		30-150
2,4,5,6-Tetrachloro-m-xylene	72		30-150
Decachlorobiphenyl	63		30-150

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 06/22/13 14:08
Analyst: TQ

Extraction Method: EPA 3546
Extraction Date: 06/22/13 01:41
Cleanup Method1: EPA 3665A
Cleanup Date1: 06/22/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 06/22/13

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 06 Batch: WG616852-1					
Aroclor 1016	ND		ug/kg	33.1	--
Aroclor 1221	ND		ug/kg	33.1	--
Aroclor 1232	ND		ug/kg	33.1	--
Aroclor 1242	ND		ug/kg	33.1	--
Aroclor 1248	ND		ug/kg	33.1	--
Aroclor 1254	ND		ug/kg	33.1	--
Aroclor 1260	ND		ug/kg	33.1	--
Aroclor 1262	ND		ug/kg	33.1	--
Aroclor 1268	ND		ug/kg	33.1	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	85		30-150
2,4,5,6-Tetrachloro-m-xylene	71		30-150
Decachlorobiphenyl	73		30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 01-05,07-08 Batch: WG615593-2 WG615593-3								
Aroclor 1016	65		67		40-140	3		50
Aroclor 1260	59		64		40-140	8		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	73		68		30-150
Decachlorobiphenyl	61		66		30-150
2,4,5,6-Tetrachloro-m-xylene	70		66		30-150
Decachlorobiphenyl	63		65		30-150

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 06 Batch: WG616852-2 WG616852-3								
Aroclor 1016	79		74		40-140	7		50
Aroclor 1260	82		77		40-140	6		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	79		74		30-150
Decachlorobiphenyl	91		84		30-150
2,4,5,6-Tetrachloro-m-xylene	76		72		30-150
Decachlorobiphenyl	77		73		30-150

PESTICIDES

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-01	Date Collected:	06/17/13 11:20
Client ID:	RC-WC-061713-01	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8081B	Extraction Date:	06/18/13 00:54
Analytical Date:	06/21/13 10:06	Cleanup Method1:	EPA 3620B
Analyst:	JC	Cleanup Date1:	06/20/13
Percent Solids:	21%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Pesticides by GC - Westborough Lab						
Delta-BHC	ND		ug/kg	37.2	--	1
Lindane	ND		ug/kg	15.5	--	1
Alpha-BHC	ND		ug/kg	15.5	--	1
Beta-BHC	ND		ug/kg	37.2	--	1
Heptachlor	ND		ug/kg	18.6	--	1
Aldrin	ND		ug/kg	37.2	--	1
Heptachlor epoxide	ND		ug/kg	69.7	--	1
Endrin	ND		ug/kg	15.5	--	1
Endrin aldehyde	ND		ug/kg	46.4	--	1
Endrin ketone	ND		ug/kg	37.2	--	1
Dieldrin	ND		ug/kg	23.2	--	1
4,4'-DDE	ND		ug/kg	37.2	--	1
4,4'-DDD	ND		ug/kg	37.2	--	1
4,4'-DDT	ND		ug/kg	69.7	--	1
Endosulfan I	ND		ug/kg	37.2	--	1
Endosulfan II	ND		ug/kg	37.2	--	1
Endosulfan sulfate	ND		ug/kg	15.5	--	1
Methoxychlor	ND		ug/kg	69.7	--	1
Toxaphene	ND		ug/kg	697	--	1
Chlordane	ND		ug/kg	302	--	1
cis-Chlordane	ND		ug/kg	46.4	--	1
trans-Chlordane	ND		ug/kg	46.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		30-150	A
Decachlorobiphenyl	101		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	78		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-01	Date Collected:	06/17/13 11:20
Client ID:	RC-WC-061713-01	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 8151A
Analytical Method:	1,8151A(M)	Extraction Date:	06/18/13 00:15
Analytical Date:	06/19/13 16:37	Methylation Date:	06/18/13 15:05
Analyst:	SH		
Percent Solids:	21%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Chlorinated Herbicides by GC - Westborough Lab						
MCPP	ND		mg/kg	15.6	--	1
MCPA	ND		mg/kg	15.6	--	1
Dalapon	ND		mg/kg	0.156	--	1
Dicamba	ND		mg/kg	0.156	--	1
Dichloroprop	ND		mg/kg	0.156	--	1
2,4-D	ND		mg/kg	0.781	--	1
2,4-DB	ND		mg/kg	0.781	--	1
2,4,5-T	ND		mg/kg	0.781	--	1
2,4,5-TP (Silvex)	ND		mg/kg	0.781	--	1
Dinoseb	ND		mg/kg	0.156	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	99		30-150	A
DCAA	105		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-02	Date Collected:	06/17/13 11:40
Client ID:	RC-WC-061713-02	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8081B	Extraction Date:	06/18/13 00:54
Analytical Date:	06/21/13 10:19	Cleanup Method1:	EPA 3620B
Analyst:	JC	Cleanup Date1:	06/20/13
Percent Solids:	11%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Pesticides by GC - Westborough Lab						
Delta-BHC	ND		ug/kg	67.6	--	1
Lindane	ND		ug/kg	28.2	--	1
Alpha-BHC	ND		ug/kg	28.2	--	1
Beta-BHC	ND		ug/kg	67.6	--	1
Heptachlor	ND		ug/kg	33.8	--	1
Aldrin	ND		ug/kg	67.6	--	1
Heptachlor epoxide	ND		ug/kg	127	--	1
Endrin	ND		ug/kg	28.2	--	1
Endrin aldehyde	ND		ug/kg	84.5	--	1
Endrin ketone	ND		ug/kg	67.6	--	1
Dieldrin	ND		ug/kg	42.2	--	1
4,4'-DDE	ND		ug/kg	67.6	--	1
4,4'-DDD	ND		ug/kg	67.6	--	1
Endosulfan I	ND		ug/kg	67.6	--	1
Endosulfan II	ND		ug/kg	67.6	--	1
Endosulfan sulfate	ND		ug/kg	28.2	--	1
Methoxychlor	ND		ug/kg	127	--	1
Toxaphene	ND		ug/kg	1270	--	1
Chlordane	ND		ug/kg	549	--	1
cis-Chlordane	ND		ug/kg	84.5	--	1
trans-Chlordane	ND		ug/kg	84.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	94		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	78		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-02	Date Collected:	06/17/13 11:40
Client ID:	RC-WC-061713-02	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8081B	Extraction Date:	06/18/13 00:54
Analytical Date:	06/21/13 10:19	Cleanup Method1:	EPA 3620B
Analyst:	JC	Cleanup Date1:	06/20/13
Percent Solids:	11%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Pesticides by GC - Westborough Lab						
4,4'-DDT	ND		ug/kg	127	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	94		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	78		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-02	Date Collected:	06/17/13 11:40
Client ID:	RC-WC-061713-02	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 8151A
Analytical Method:	1,8151A(M)	Extraction Date:	06/18/13 00:15
Analytical Date:	06/19/13 16:57	Methylation Date:	06/18/13 15:05
Analyst:	SH		
Percent Solids:	11%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Chlorinated Herbicides by GC - Westborough Lab						
MCPP	ND		mg/kg	28.8	--	1
MCPA	ND		mg/kg	28.8	--	1
Dalapon	ND		mg/kg	0.288	--	1
Dicamba	ND		mg/kg	0.288	--	1
Dichloroprop	ND		mg/kg	0.288	--	1
2,4-D	ND		mg/kg	1.44	--	1
2,4-DB	ND		mg/kg	1.44	--	1
2,4,5-T	ND		mg/kg	1.44	--	1
2,4,5-TP (Silvex)	ND		mg/kg	1.44	--	1
Dinoseb	ND		mg/kg	0.288	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	93		30-150	A
DCAA	91		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-03	Date Collected:	06/17/13 12:10
Client ID:	RC-WC-061713-03	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8081B	Extraction Date:	06/18/13 00:54
Analytical Date:	06/21/13 10:32	Cleanup Method1:	EPA 3620B
Analyst:	JC	Cleanup Date1:	06/20/13
Percent Solids:	21%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Pesticides by GC - Westborough Lab						
Delta-BHC	ND		ug/kg	36.3	--	1
Lindane	ND		ug/kg	15.1	--	1
Alpha-BHC	ND		ug/kg	15.1	--	1
Beta-BHC	ND		ug/kg	36.3	--	1
Heptachlor	ND		ug/kg	18.1	--	1
Aldrin	ND		ug/kg	36.3	--	1
Heptachlor epoxide	ND		ug/kg	68.0	--	1
Endrin	ND		ug/kg	15.1	--	1
Endrin aldehyde	ND		ug/kg	45.3	--	1
Endrin ketone	ND		ug/kg	36.3	--	1
Dieldrin	ND		ug/kg	22.7	--	1
4,4'-DDE	ND		ug/kg	36.3	--	1
4,4'-DDD	ND		ug/kg	36.3	--	1
4,4'-DDT	ND		ug/kg	68.0	--	1
Endosulfan I	ND		ug/kg	36.3	--	1
Endosulfan II	ND		ug/kg	36.3	--	1
Endosulfan sulfate	ND		ug/kg	15.1	--	1
Methoxychlor	ND		ug/kg	68.0	--	1
Toxaphene	ND		ug/kg	680	--	1
Chlordane	ND		ug/kg	295	--	1
cis-Chlordane	ND		ug/kg	45.3	--	1
trans-Chlordane	ND		ug/kg	45.3	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	98		30-150	A
Decachlorobiphenyl	93		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	84		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-03	Date Collected:	06/17/13 12:10
Client ID:	RC-WC-061713-03	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 8151A
Analytical Method:	1,8151A(M)	Extraction Date:	06/18/13 00:15
Analytical Date:	06/19/13 17:17	Methylation Date:	06/18/13 15:05
Analyst:	SH		
Percent Solids:	21%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Chlorinated Herbicides by GC - Westborough Lab						
MCPP	ND		mg/kg	15.7	--	1
MCPA	ND		mg/kg	15.7	--	1
Dalapon	ND		mg/kg	0.157	--	1
Dicamba	ND		mg/kg	0.157	--	1
Dichloroprop	ND		mg/kg	0.157	--	1
2,4-D	ND		mg/kg	0.784	--	1
2,4-DB	ND		mg/kg	0.784	--	1
2,4,5-T	ND		mg/kg	0.784	--	1
2,4,5-TP (Silvex)	ND		mg/kg	0.784	--	1
Dinoseb	ND		mg/kg	0.157	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	92		30-150	A
DCAA	83		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-04	Date Collected:	06/17/13 12:35
Client ID:	RC-WC-061713-04	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8081B	Extraction Date:	06/18/13 00:54
Analytical Date:	06/21/13 10:47	Cleanup Method1:	EPA 3620B
Analyst:	JC	Cleanup Date1:	06/20/13
Percent Solids:	6%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Pesticides by GC - Westborough Lab						
Delta-BHC	ND		ug/kg	119	--	1
Lindane	ND		ug/kg	49.7	--	1
Alpha-BHC	ND		ug/kg	49.7	--	1
Beta-BHC	ND		ug/kg	119	--	1
Heptachlor	ND		ug/kg	59.7	--	1
Aldrin	ND		ug/kg	119	--	1
Heptachlor epoxide	ND		ug/kg	224	--	1
Endrin	ND		ug/kg	49.7	--	1
Endrin aldehyde	ND		ug/kg	149	--	1
Endrin ketone	ND		ug/kg	119	--	1
Dieldrin	ND		ug/kg	74.6	--	1
4,4'-DDE	ND		ug/kg	119	--	1
4,4'-DDD	ND		ug/kg	119	--	1
4,4'-DDT	ND		ug/kg	224	--	1
Endosulfan I	ND		ug/kg	119	--	1
Endosulfan II	ND		ug/kg	119	--	1
Endosulfan sulfate	ND		ug/kg	49.7	--	1
Methoxychlor	ND		ug/kg	224	--	1
Toxaphene	ND		ug/kg	2240	--	1
Chlordane	ND		ug/kg	970	--	1
cis-Chlordane	ND		ug/kg	149	--	1
trans-Chlordane	ND		ug/kg	149	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	101		30-150	A
Decachlorobiphenyl	95		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	79		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-04	Date Collected:	06/17/13 12:35
Client ID:	RC-WC-061713-04	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 8151A
Analytical Method:	1,8151A(M)	Extraction Date:	06/18/13 00:15
Analytical Date:	06/19/13 17:58	Methylation Date:	06/18/13 15:05
Analyst:	SH		
Percent Solids:	6%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Chlorinated Herbicides by GC - Westborough Lab						
MCPP	ND		mg/kg	51.8	--	1
MCPA	ND		mg/kg	51.8	--	1
Dalapon	ND		mg/kg	0.518	--	1
Dicamba	ND		mg/kg	0.518	--	1
Dichloroprop	ND		mg/kg	0.518	--	1
2,4-D	ND		mg/kg	2.59	--	1
2,4-DB	ND		mg/kg	2.59	--	1
2,4,5-T	ND		mg/kg	2.59	--	1
2,4,5-TP (Silvex)	ND		mg/kg	2.59	--	1
Dinoseb	ND		mg/kg	0.518	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	74		30-150	A
DCAA	43		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-05	Date Collected:	06/17/13 13:10
Client ID:	RC-WC-061713-05	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8081B	Extraction Date:	06/18/13 00:54
Analytical Date:	06/21/13 11:13	Cleanup Method1:	EPA 3620B
Analyst:	JC	Cleanup Date1:	06/20/13
Percent Solids:	9%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Pesticides by GC - Westborough Lab						
Delta-BHC	ND		ug/kg	85.2	--	1
Lindane	ND		ug/kg	35.5	--	1
Alpha-BHC	ND		ug/kg	35.5	--	1
Beta-BHC	ND		ug/kg	85.2	--	1
Heptachlor	ND		ug/kg	42.6	--	1
Aldrin	ND		ug/kg	85.2	--	1
Heptachlor epoxide	ND		ug/kg	160	--	1
Endrin	ND		ug/kg	35.5	--	1
Endrin aldehyde	ND		ug/kg	106	--	1
Endrin ketone	ND		ug/kg	85.2	--	1
Dieldrin	ND		ug/kg	53.3	--	1
4,4'-DDE	ND		ug/kg	85.2	--	1
4,4'-DDD	ND		ug/kg	85.2	--	1
4,4'-DDT	ND		ug/kg	160	--	1
Endosulfan I	ND		ug/kg	85.2	--	1
Endosulfan II	ND		ug/kg	85.2	--	1
Endosulfan sulfate	ND		ug/kg	35.5	--	1
Methoxychlor	ND		ug/kg	160	--	1
Toxaphene	ND		ug/kg	1600	--	1
Chlordane	ND		ug/kg	692	--	1
cis-Chlordane	ND		ug/kg	106	--	1
trans-Chlordane	ND		ug/kg	106	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	88		30-150	A
2,4,5,6-Tetrachloro-m-xylene	51		30-150	B
Decachlorobiphenyl	77		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-05	Date Collected:	06/17/13 13:10
Client ID:	RC-WC-061713-05	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 8151A
Analytical Method:	1,8151A(M)	Extraction Date:	06/18/13 00:15
Analytical Date:	06/19/13 18:18	Methylation Date:	06/18/13 15:05
Analyst:	SH		
Percent Solids:	9%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Chlorinated Herbicides by GC - Westborough Lab						
MCPP	ND		mg/kg	36.5	--	1
MCPA	ND		mg/kg	36.5	--	1
Dalapon	ND		mg/kg	0.365	--	1
Dicamba	ND		mg/kg	0.365	--	1
Dichloroprop	ND		mg/kg	0.365	--	1
2,4-D	ND		mg/kg	1.82	--	1
2,4-DB	ND		mg/kg	1.82	--	1
2,4,5-T	ND		mg/kg	1.82	--	1
2,4,5-TP (Silvex)	ND		mg/kg	1.82	--	1
Dinoseb	ND		mg/kg	0.365	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	100		30-150	A
DCAA	52		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-06	Date Collected:	06/17/13 13:30
Client ID:	RC-WC-061713-06	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8081B	Extraction Date:	06/18/13 00:54
Analytical Date:	06/21/13 11:26	Cleanup Method1:	EPA 3620B
Analyst:	JC	Cleanup Date1:	06/20/13
Percent Solids:	27%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Pesticides by GC - Westborough Lab						
Delta-BHC	ND		ug/kg	28.9	--	1
Lindane	ND		ug/kg	12.0	--	1
Alpha-BHC	ND		ug/kg	12.0	--	1
Beta-BHC	ND		ug/kg	28.9	--	1
Heptachlor	ND		ug/kg	14.4	--	1
Aldrin	ND		ug/kg	28.9	--	1
Heptachlor epoxide	ND		ug/kg	54.1	--	1
Endrin	ND		ug/kg	12.0	--	1
Endrin aldehyde	ND		ug/kg	36.1	--	1
Endrin ketone	ND		ug/kg	28.9	--	1
Dieldrin	ND		ug/kg	18.0	--	1
4,4'-DDE	ND		ug/kg	28.9	--	1
4,4'-DDD	ND		ug/kg	28.9	--	1
4,4'-DDT	ND		ug/kg	54.1	--	1
Endosulfan I	ND		ug/kg	28.9	--	1
Endosulfan II	ND		ug/kg	28.9	--	1
Endosulfan sulfate	ND		ug/kg	12.0	--	1
Methoxychlor	ND		ug/kg	54.1	--	1
Toxaphene	ND		ug/kg	541	--	1
Chlordane	ND		ug/kg	234	--	1
cis-Chlordane	ND		ug/kg	36.1	--	1
trans-Chlordane	ND		ug/kg	36.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	85		30-150	A
Decachlorobiphenyl	77		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	80		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-06	Date Collected:	06/17/13 13:30
Client ID:	RC-WC-061713-06	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 8151A
Analytical Method:	1,8151A(M)	Extraction Date:	06/18/13 00:15
Analytical Date:	06/19/13 18:38	Methylation Date:	06/18/13 15:05
Analyst:	SH		
Percent Solids:	27%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Chlorinated Herbicides by GC - Westborough Lab						
MCPP	ND		mg/kg	12.4	--	1
MCPA	ND		mg/kg	12.4	--	1
Dalapon	ND		mg/kg	0.124	--	1
Dicamba	ND		mg/kg	0.124	--	1
Dichloroprop	ND		mg/kg	0.124	--	1
2,4-D	ND		mg/kg	0.620	--	1
2,4-DB	ND		mg/kg	0.620	--	1
2,4,5-T	ND		mg/kg	0.620	--	1
2,4,5-TP (Silvex)	ND		mg/kg	0.620	--	1
Dinoseb	ND		mg/kg	0.124	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	73		30-150	A
DCAA	55		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-07	Date Collected:	06/17/13 13:45
Client ID:	RC-WC-061713-07	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8081B	Extraction Date:	06/18/13 00:54
Analytical Date:	06/21/13 11:39	Cleanup Method1:	EPA 3620B
Analyst:	JC	Cleanup Date1:	06/20/13
Percent Solids:	9%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Pesticides by GC - Westborough Lab						
Delta-BHC	ND		ug/kg	85.8	--	1
Lindane	ND		ug/kg	35.7	--	1
Alpha-BHC	ND		ug/kg	35.7	--	1
Beta-BHC	ND		ug/kg	85.8	--	1
Heptachlor	ND		ug/kg	42.9	--	1
Aldrin	ND		ug/kg	85.8	--	1
Heptachlor epoxide	ND		ug/kg	161	--	1
Endrin	ND		ug/kg	35.7	--	1
Endrin aldehyde	ND		ug/kg	107	--	1
Endrin ketone	ND		ug/kg	85.8	--	1
Dieldrin	ND		ug/kg	53.6	--	1
4,4'-DDE	ND		ug/kg	85.8	--	1
4,4'-DDD	ND		ug/kg	85.8	--	1
4,4'-DDT	ND		ug/kg	161	--	1
Endosulfan I	ND		ug/kg	85.8	--	1
Endosulfan II	ND		ug/kg	85.8	--	1
Endosulfan sulfate	ND		ug/kg	35.7	--	1
Methoxychlor	ND		ug/kg	161	--	1
Toxaphene	ND		ug/kg	1610	--	1
Chlordane	ND		ug/kg	697	--	1
cis-Chlordane	ND		ug/kg	107	--	1
trans-Chlordane	ND		ug/kg	107	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		30-150	A
Decachlorobiphenyl	87		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	87		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-07	Date Collected:	06/17/13 13:45
Client ID:	RC-WC-061713-07	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 8151A
Analytical Method:	1,8151A(M)	Extraction Date:	06/18/13 00:15
Analytical Date:	06/19/13 18:58	Methylation Date:	06/18/13 15:05
Analyst:	SH		
Percent Solids:	9%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Chlorinated Herbicides by GC - Westborough Lab						
MCPP	ND		mg/kg	36.2	--	1
MCPA	ND		mg/kg	36.2	--	1
Dalapon	ND		mg/kg	0.362	--	1
Dicamba	ND		mg/kg	0.362	--	1
Dichloroprop	ND		mg/kg	0.362	--	1
2,4-D	ND		mg/kg	1.81	--	1
2,4-DB	ND		mg/kg	1.81	--	1
2,4,5-T	ND		mg/kg	1.81	--	1
2,4,5-TP (Silvex)	ND		mg/kg	1.81	--	1
Dinoseb	ND		mg/kg	0.362	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	77		30-150	A
DCAA	46		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-08	Date Collected:	06/17/13 14:10
Client ID:	RC-WC-061713-08	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8081B	Extraction Date:	06/18/13 00:54
Analytical Date:	06/21/13 11:51	Cleanup Method1:	EPA 3620B
Analyst:	JC	Cleanup Date1:	06/20/13
Percent Solids:	10%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Pesticides by GC - Westborough Lab						
Delta-BHC	ND		ug/kg	76.6	--	1
Lindane	ND		ug/kg	31.9	--	1
Alpha-BHC	ND		ug/kg	31.9	--	1
Beta-BHC	ND		ug/kg	76.6	--	1
Heptachlor	ND		ug/kg	38.3	--	1
Aldrin	ND		ug/kg	76.6	--	1
Heptachlor epoxide	ND		ug/kg	144	--	1
Endrin	ND		ug/kg	31.9	--	1
Endrin aldehyde	ND		ug/kg	95.8	--	1
Endrin ketone	ND		ug/kg	76.6	--	1
Dieldrin	ND		ug/kg	47.9	--	1
4,4'-DDE	ND		ug/kg	76.6	--	1
4,4'-DDD	ND		ug/kg	76.6	--	1
4,4'-DDT	ND		ug/kg	144	--	1
Endosulfan I	ND		ug/kg	76.6	--	1
Endosulfan II	ND		ug/kg	76.6	--	1
Endosulfan sulfate	ND		ug/kg	31.9	--	1
Methoxychlor	ND		ug/kg	144	--	1
Toxaphene	ND		ug/kg	1440	--	1
Chlordane	ND		ug/kg	623	--	1
cis-Chlordane	ND		ug/kg	95.8	--	1
trans-Chlordane	ND		ug/kg	95.8	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		30-150	A
Decachlorobiphenyl	87		30-150	A
2,4,5,6-Tetrachloro-m-xylene	58		30-150	B
Decachlorobiphenyl	81		30-150	B

Project Name: FORT DEVENS **Lab Number:** L1311048

Project Number: AC001.005 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-08	Date Collected:	06/17/13 14:10
Client ID:	RC-WC-061713-08	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 8151A
Analytical Method:	1,8151A(M)	Extraction Date:	06/18/13 00:15
Analytical Date:	06/19/13 19:18	Methylation Date:	06/18/13 15:05
Analyst:	SH		
Percent Solids:	10%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Chlorinated Herbicides by GC - Westborough Lab						
MCPP	ND		mg/kg	33.1	--	1
MCPA	ND		mg/kg	33.1	--	1
Dalapon	ND		mg/kg	0.331	--	1
Dicamba	ND		mg/kg	0.331	--	1
Dichloroprop	ND		mg/kg	0.331	--	1
2,4-D	ND		mg/kg	1.66	--	1
2,4-DB	ND		mg/kg	1.66	--	1
2,4,5-T	ND		mg/kg	1.66	--	1
2,4,5-TP (Silvex)	ND		mg/kg	1.66	--	1
Dinoseb	ND		mg/kg	0.331	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	98		30-150	A
DCAA	63		30-150	B

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A(M)
Analytical Date: 06/19/13 15:36
Analyst: SH

Extraction Method: EPA 8151A
Extraction Date: 06/18/13 00:15

Methylation Date: 06/18/13 15:05

Parameter	Result	Qualifier	Units	RL	MDL
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-08 Batch: WG615586-1					
MCPP	ND		mg/kg	3.33	--
MCPA	ND		mg/kg	3.33	--
Dalapon	ND		mg/kg	0.033	--
Dicamba	ND		mg/kg	0.033	--
Dichloroprop	ND		mg/kg	0.033	--
2,4-D	ND		mg/kg	0.166	--
2,4-DB	ND		mg/kg	0.166	--
2,4,5-T	ND		mg/kg	0.166	--
2,4,5-TP (Silvex)	ND		mg/kg	0.166	--
Dinoseb	ND		mg/kg	0.033	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	90		30-150	A
DCAA	34		30-150	B

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 06/21/13 09:53
Analyst: JC

Extraction Method: EPA 3546
Extraction Date: 06/18/13 00:54
Cleanup Method1: EPA 3620B
Cleanup Date1: 06/20/13

Parameter	Result	Qualifier	Units	RL	MDL
Pesticides by GC - Westborough Lab for sample(s): 01-08 Batch: WG615596-1					
Delta-BHC	ND		ug/kg	7.95	--
Lindane	ND		ug/kg	3.31	--
Alpha-BHC	ND		ug/kg	3.31	--
Beta-BHC	ND		ug/kg	7.95	--
Heptachlor	ND		ug/kg	3.97	--
Aldrin	ND		ug/kg	7.95	--
Heptachlor epoxide	ND		ug/kg	14.9	--
Endrin	ND		ug/kg	3.31	--
Endrin aldehyde	ND		ug/kg	9.93	--
Endrin ketone	ND		ug/kg	7.95	--
Dieldrin	ND		ug/kg	4.97	--
4,4'-DDE	ND		ug/kg	7.95	--
4,4'-DDD	ND		ug/kg	7.95	--
4,4'-DDT	ND		ug/kg	14.9	--
Endosulfan I	ND		ug/kg	7.95	--
Endosulfan II	ND		ug/kg	7.95	--
Endosulfan sulfate	ND		ug/kg	3.31	--
Methoxychlor	ND		ug/kg	14.9	--
Toxaphene	ND		ug/kg	149	--
Chlordane	ND		ug/kg	64.6	--
cis-Chlordane	ND		ug/kg	9.93	--
trans-Chlordane	ND		ug/kg	9.93	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		30-150	A
Decachlorobiphenyl	109		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	92		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG615586-2 WG615586-3								
MCPP	85		106		30-150	22		30
MCPA	88		103		30-150	16		30
Dalapon	94		76		30-150	21		30
Dicamba	88		100		30-150	13		30
Dichloroprop	89		99		30-150	11		30
2,4-D	104		117		30-150	12		30
2,4-DB	120		136		30-150	13		30
2,4,5-T	96		106		30-150	10		30
2,4,5-TP (Silvex)	92		100		30-150	8		30
Dinoseb	**5**	Q	**3**	Q	30-150	**42**	Q	30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	84		93		30-150	A
DCAA	39		34		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Pesticides by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG615596-2 WG615596-3								
Delta-BHC	80		96		30-150	18		30
Lindane	86		105		30-150	20		30
Alpha-BHC	89		106		30-150	17		30
Beta-BHC	90		104		30-150	14		30
Heptachlor	95		112		30-150	16		30
Aldrin	106		127		30-150	18		30
Heptachlor epoxide	102		124		30-150	19		30
Endrin	139		**168**	Q	30-150	19		30
Endrin aldehyde	89		104		30-150	16		30
Endrin ketone	93		116		30-150	22		30
Dieldrin	117		143		30-150	20		30
4,4'-DDE	107		126		30-150	16		30
4,4'-DDD	111		136		30-150	20		30
4,4'-DDT	112		140		30-150	22		30
Endosulfan I	112		136		30-150	19		30
Endosulfan II	106		127		30-150	18		30
Endosulfan sulfate	95		120		30-150	23		30
Methoxychlor	100		129		30-150	25		30
cis-Chlordane	112		133		30-150	17		30
trans-Chlordane	115		137		30-150	17		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Pesticides by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG615596-2 WG615596-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	100		109		30-150	A
Decachlorobiphenyl	98		119		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		79		30-150	B
Decachlorobiphenyl	82		99		30-150	B

METALS

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-01
Client ID: RC-WC-061713-01
Sample Location: DEVENS, MA
Matrix: Sediment
Percent Solids: 21%

Date Collected: 06/17/13 11:20
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	660		mg/kg	1.9	--	1	06/18/13 13:01	06/19/13 14:42	EPA 3050B	1,6010C	KL
Barium, Total	82		mg/kg	1.9	--	1	06/18/13 13:01	06/19/13 14:42	EPA 3050B	1,6010C	KL
Cadmium, Total	ND		mg/kg	1.9	--	1	06/18/13 13:01	06/19/13 14:42	EPA 3050B	1,6010C	KL
Chromium, Total	260		mg/kg	1.9	--	1	06/18/13 13:01	06/19/13 14:42	EPA 3050B	1,6010C	KL
Lead, Total	27		mg/kg	9.3	--	1	06/18/13 13:01	06/19/13 14:42	EPA 3050B	1,6010C	KL
Mercury, Total	3.9		mg/kg	0.36	--	1	06/18/13 15:52	06/19/13 15:13	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	3.7	--	1	06/18/13 13:01	06/19/13 14:42	EPA 3050B	1,6010C	KL
Silver, Total	ND		mg/kg	1.9	--	1	06/18/13 13:01	06/19/13 14:42	EPA 3050B	1,6010C	KL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-02
Client ID: RC-WC-061713-02
Sample Location: DEVENS, MA
Matrix: Sediment
Percent Solids: 11%

Date Collected: 06/17/13 11:40
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	1700		mg/kg	3.4	--	1	06/18/13 13:01	06/19/13 14:46	EPA 3050B	1,6010C	KL
Barium, Total	200		mg/kg	3.4	--	1	06/18/13 13:01	06/19/13 14:46	EPA 3050B	1,6010C	KL
Cadmium, Total	ND		mg/kg	3.4	--	1	06/18/13 13:01	06/19/13 14:46	EPA 3050B	1,6010C	KL
Chromium, Total	290		mg/kg	3.4	--	1	06/18/13 13:01	06/19/13 14:46	EPA 3050B	1,6010C	KL
Lead, Total	65		mg/kg	17	--	1	06/18/13 13:01	06/19/13 14:46	EPA 3050B	1,6010C	KL
Mercury, Total	0.90		mg/kg	0.67	--	1	06/18/13 15:52	06/19/13 15:15	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	6.8	--	1	06/18/13 13:01	06/19/13 14:46	EPA 3050B	1,6010C	KL
Silver, Total	ND		mg/kg	3.4	--	1	06/18/13 13:01	06/19/13 14:46	EPA 3050B	1,6010C	KL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-03
Client ID: RC-WC-061713-03
Sample Location: DEVENS, MA
Matrix: Sediment
Percent Solids: 21%

Date Collected: 06/17/13 12:10
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	35		mg/kg	3.6	--	2	06/18/13 13:01	06/19/13 14:50	EPA 3050B	1,6010C	KL
Barium, Total	30		mg/kg	3.6	--	2	06/18/13 13:01	06/19/13 14:50	EPA 3050B	1,6010C	KL
Cadmium, Total	ND		mg/kg	3.6	--	2	06/18/13 13:01	06/19/13 14:50	EPA 3050B	1,6010C	KL
Chromium, Total	75		mg/kg	3.6	--	2	06/18/13 13:01	06/19/13 14:50	EPA 3050B	1,6010C	KL
Lead, Total	20		mg/kg	18	--	2	06/18/13 13:01	06/19/13 14:50	EPA 3050B	1,6010C	KL
Mercury, Total	0.87		mg/kg	0.34	--	1	06/19/13 14:15	06/20/13 09:30	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	7.3	--	2	06/18/13 13:01	06/19/13 14:50	EPA 3050B	1,6010C	KL
Silver, Total	ND		mg/kg	3.6	--	2	06/18/13 13:01	06/19/13 14:50	EPA 3050B	1,6010C	KL

Project Name: FORT DEVENS
Lab Number: L1311048
Project Number: AC001.005
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-04
Client ID: RC-WC-061713-04
Sample Location: DEVENS, MA
Matrix: Sediment
Percent Solids: 6%

Date Collected: 06/17/13 12:35
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	90		mg/kg	6.1	--	1	06/18/13 13:01	06/19/13 14:54	EPA 3050B	1,6010C	KL
Barium, Total	56		mg/kg	6.1	--	1	06/18/13 13:01	06/19/13 14:54	EPA 3050B	1,6010C	KL
Cadmium, Total	ND		mg/kg	6.1	--	1	06/18/13 13:01	06/19/13 14:54	EPA 3050B	1,6010C	KL
Chromium, Total	220		mg/kg	6.1	--	1	06/18/13 13:01	06/19/13 14:54	EPA 3050B	1,6010C	KL
Lead, Total	ND		mg/kg	30	--	1	06/18/13 13:01	06/19/13 14:54	EPA 3050B	1,6010C	KL
Mercury, Total	3.9		mg/kg	1.0	--	1	06/19/13 14:15	06/20/13 09:37	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	12	--	1	06/18/13 13:01	06/19/13 14:54	EPA 3050B	1,6010C	KL
Silver, Total	ND		mg/kg	6.1	--	1	06/18/13 13:01	06/19/13 14:54	EPA 3050B	1,6010C	KL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-05
Client ID: RC-WC-061713-05
Sample Location: DEVENS, MA
Matrix: Sediment
Percent Solids: 9%

Date Collected: 06/17/13 13:10
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	440		mg/kg	4.4	--	1	06/18/13 13:01	06/19/13 15:13	EPA 3050B	1,6010C	KL
Barium, Total	52		mg/kg	4.4	--	1	06/18/13 13:01	06/19/13 15:13	EPA 3050B	1,6010C	KL
Cadmium, Total	ND		mg/kg	4.4	--	1	06/18/13 13:01	06/19/13 15:13	EPA 3050B	1,6010C	KL
Chromium, Total	100		mg/kg	4.4	--	1	06/18/13 13:01	06/19/13 15:13	EPA 3050B	1,6010C	KL
Lead, Total	ND		mg/kg	22	--	1	06/18/13 13:01	06/19/13 15:13	EPA 3050B	1,6010C	KL
Mercury, Total	1.0		mg/kg	0.91	--	1	06/19/13 14:15	06/20/13 09:52	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	8.7	--	1	06/18/13 13:01	06/19/13 15:13	EPA 3050B	1,6010C	KL
Silver, Total	ND		mg/kg	4.4	--	1	06/18/13 13:01	06/19/13 15:13	EPA 3050B	1,6010C	KL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-06
Client ID: RC-WC-061713-06
Sample Location: DEVENS, MA
Matrix: Sediment
Percent Solids: 27%

Date Collected: 06/17/13 13:30
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	62		mg/kg	1.4	--	1	06/18/13 13:01	06/19/13 15:17	EPA 3050B	1,6010C	KL
Barium, Total	29		mg/kg	1.4	--	1	06/18/13 13:01	06/19/13 15:17	EPA 3050B	1,6010C	KL
Cadmium, Total	ND		mg/kg	1.4	--	1	06/18/13 13:01	06/19/13 15:17	EPA 3050B	1,6010C	KL
Chromium, Total	150		mg/kg	1.4	--	1	06/18/13 13:01	06/19/13 15:17	EPA 3050B	1,6010C	KL
Lead, Total	9.4		mg/kg	7.1	--	1	06/18/13 13:01	06/19/13 15:17	EPA 3050B	1,6010C	KL
Mercury, Total	2.1		mg/kg	0.28	--	1	06/19/13 14:15	06/20/13 09:54	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	2.8	--	1	06/18/13 13:01	06/19/13 15:17	EPA 3050B	1,6010C	KL
Silver, Total	ND		mg/kg	1.4	--	1	06/18/13 13:01	06/19/13 15:17	EPA 3050B	1,6010C	KL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-07
Client ID: RC-WC-061713-07
Sample Location: DEVENS, MA
Matrix: Sediment
Percent Solids: 9%

Date Collected: 06/17/13 13:45
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	160		mg/kg	4.2	--	1	06/18/13 13:01	06/19/13 15:20	EPA 3050B	1,6010C	KL
Barium, Total	48		mg/kg	4.2	--	1	06/18/13 13:01	06/19/13 15:20	EPA 3050B	1,6010C	KL
Cadmium, Total	ND		mg/kg	4.2	--	1	06/18/13 13:01	06/19/13 15:20	EPA 3050B	1,6010C	KL
Chromium, Total	1200		mg/kg	4.2	--	1	06/18/13 13:01	06/19/13 15:20	EPA 3050B	1,6010C	KL
Lead, Total	48		mg/kg	21	--	1	06/18/13 13:01	06/19/13 15:20	EPA 3050B	1,6010C	KL
Mercury, Total	ND		mg/kg	0.82	--	1	06/19/13 14:15	06/20/13 09:56	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	8.5	--	1	06/18/13 13:01	06/19/13 15:20	EPA 3050B	1,6010C	KL
Silver, Total	ND		mg/kg	4.2	--	1	06/18/13 13:01	06/19/13 15:20	EPA 3050B	1,6010C	KL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-08
Client ID: RC-WC-061713-08
Sample Location: DEVENS, MA
Matrix: Sediment
Percent Solids: 10%

Date Collected: 06/17/13 14:10
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	180		mg/kg	3.8	--	1	06/18/13 13:01	06/19/13 15:24	EPA 3050B	1,6010C	KL
Barium, Total	46		mg/kg	3.8	--	1	06/18/13 13:01	06/19/13 15:24	EPA 3050B	1,6010C	KL
Cadmium, Total	ND		mg/kg	3.8	--	1	06/18/13 13:01	06/19/13 15:24	EPA 3050B	1,6010C	KL
Chromium, Total	700		mg/kg	3.8	--	1	06/18/13 13:01	06/19/13 15:24	EPA 3050B	1,6010C	KL
Lead, Total	33		mg/kg	19	--	1	06/18/13 13:01	06/19/13 15:24	EPA 3050B	1,6010C	KL
Mercury, Total	7.5		mg/kg	0.75	--	1	06/19/13 14:15	06/20/13 09:57	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	7.5	--	1	06/18/13 13:01	06/19/13 15:24	EPA 3050B	1,6010C	KL
Silver, Total	ND		mg/kg	3.8	--	1	06/18/13 13:01	06/19/13 15:24	EPA 3050B	1,6010C	KL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-02 Batch: WG615742-1										
Mercury, Total	ND		mg/kg	0.08	--	1	06/18/13 15:52	06/19/13 14:20	1,7471B	MC

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-08 Batch: WG615764-1										
Arsenic, Total	ND		mg/kg	0.40	--	1	06/18/13 13:01	06/19/13 13:59	1,6010C	KL
Barium, Total	ND		mg/kg	0.40	--	1	06/18/13 13:01	06/19/13 13:59	1,6010C	KL
Cadmium, Total	ND		mg/kg	0.40	--	1	06/18/13 13:01	06/19/13 13:59	1,6010C	KL
Chromium, Total	ND		mg/kg	0.40	--	1	06/18/13 13:01	06/19/13 13:59	1,6010C	KL
Lead, Total	ND		mg/kg	2.0	--	1	06/18/13 13:01	06/19/13 13:59	1,6010C	KL
Selenium, Total	ND		mg/kg	0.80	--	1	06/18/13 13:01	06/19/13 13:59	1,6010C	KL
Silver, Total	ND		mg/kg	0.40	--	1	06/18/13 13:01	06/19/13 13:59	1,6010C	KL

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 03-08 Batch: WG616037-1										
Mercury, Total	ND		mg/kg	0.08	--	1	06/19/13 14:15	06/20/13 09:22	1,7471B	MC

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG615742-2 SRM Lot Number: 0518-10-02								
Mercury, Total	105		-		67-133	-		
Total Metals - Westborough Lab Associated sample(s): 01-08 Batch: WG615764-2 SRM Lot Number: 0518-10-02								
Arsenic, Total	104		-		81-119	-		
Barium, Total	96		-		83-118	-		
Cadmium, Total	94		-		82-117	-		
Chromium, Total	97		-		80-119	-		
Lead, Total	95		-		80-120	-		
Selenium, Total	102		-		80-120	-		
Silver, Total	102		-		66-134	-		
Total Metals - Westborough Lab Associated sample(s): 03-08 Batch: WG616037-2 SRM Lot Number: 0518-10-02								
Mercury, Total	111		-		67-133	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG615742-4 QC Sample: L1310883-01 Client ID: MS Sample												
Mercury, Total	0.35	0.182	0.23	**0**	Q	-	-		70-130	-		35
Total Metals - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG615764-4 QC Sample: L1311087-01 Client ID: MS Sample												
Arsenic, Total	34	11.1	48	**126**	Q	-	-		75-125	-		35
Barium, Total	330	185	470	76		-	-		75-125	-		35
Cadmium, Total	6.0	4.71	9.2	**68**	Q	-	-		75-125	-		35
Chromium, Total	28	18.5	43	81		-	-		75-125	-		35
Lead, Total	6900	47.1	5400	**0**	Q	-	-		75-125	-		35
Selenium, Total	ND	11.1	9.6	87		-	-		75-125	-		35
Silver, Total	ND	27.7	29	105		-	-		75-125	-		35
Total Metals - Westborough Lab Associated sample(s): 03-08 QC Batch ID: WG616037-4 QC Sample: L1311048-03 Client ID: RC-WC-061713-03												
Mercury, Total	0.87	0.668	1.0	**19**	Q	-	-		70-130	-		35

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG615742-3 QC Sample: L1310883-01 Client ID: DUP Sample						
Mercury, Total	0.35	ND	mg/kg	NC		35
Total Metals - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG615764-3 QC Sample: L1311087-01 Client ID: DUP Sample						
Arsenic, Total	34	22	mg/kg	**43**	Q	35
Barium, Total	330	240	mg/kg	32		35
Cadmium, Total	6.0	3.5	mg/kg	**53**	Q	35
Chromium, Total	28	18	mg/kg	**43**	Q	35
Lead, Total	6900	5300	mg/kg	26		35
Selenium, Total	ND	ND	mg/kg	NC		35
Silver, Total	ND	ND	mg/kg	NC		35
Total Metals - Westborough Lab Associated sample(s): 03-08 QC Batch ID: WG616037-3 QC Sample: L1311048-03 Client ID: RC-WC-061713-03						
Mercury, Total	0.87	2.4	mg/kg	**94**	Q	35

INORGANICS
&
MISCELLANEOUS

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-01
Client ID: RC-WC-061713-01
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 11:20
Date Received: 06/17/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Wet Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	06/18/13 21:38	1,1030	TL

Project Name:	FORT DEVENS	**Lab Number:**	L1311048
Project Number:	AC001.005	**Report Date:**	06/26/13

SAMPLE RESULTS

Lab ID:	L1311048-02	Date Collected:	06/17/13 11:40
Client ID:	RC-WC-061713-02	Date Received:	06/17/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment		

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Wet Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	06/18/13 21:38	1,1030	TL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-03
Client ID: RC-WC-061713-03
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 12:10
Date Received: 06/17/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Wet Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	06/18/13 21:38	1,1030	TL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-04
Client ID: RC-WC-061713-04
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 12:35
Date Received: 06/17/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Wet Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	06/18/13 21:38	1,1030	TL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-05
Client ID: RC-WC-061713-05
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 13:10
Date Received: 06/17/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Wet Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	06/18/13 21:38	1,1030	TL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-06
Client ID: RC-WC-061713-06
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 13:30
Date Received: 06/17/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Wet Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	06/18/13 21:38	1,1030	TL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-07
Client ID: RC-WC-061713-07
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 13:45
Date Received: 06/17/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Wet Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	06/18/13 21:38	1,1030	TL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-08
Client ID: RC-WC-061713-08
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 14:10
Date Received: 06/17/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Wet Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	06/18/13 21:38	1,1030	TL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-01
Client ID: RC-WC-061713-01
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 11:20
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	20.9		%	0.100	NA	1	-	06/17/13 20:31	30,2540G	RD
pH (H)	6.4		SU	-	NA	1	-	06/17/13 21:30	1,9045D	RD
Cyanide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:31	1,7.3	TL
Sulfide, Reactive	440		mg/kg	50	--	5	06/18/13 17:30	06/18/13 19:19	1,7.3	TL

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-02
Client ID: RC-WC-061713-02
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 11:40
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	11.4		%	0.100	NA	1	-	06/17/13 20:31	30,2540G	RD
pH (H)	6.3		SU	-	NA	1	-	06/17/13 21:30	1,9045D	RD
Cyanide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:31	1,7.3	TL
Sulfide, Reactive	28		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:19	1,7.3	TL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-03
Client ID: RC-WC-061713-03
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 12:10
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	21.1		%	0.100	NA	1	-	06/17/13 20:31	30,2540G	RD
pH (H)	6.1		SU	-	NA	1	-	06/17/13 21:30	1,9045D	RD
Cyanide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:31	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:19	1,7.3	TL

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-04
Client ID: RC-WC-061713-04
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 12:35
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	6.40		%	0.100	NA	1	-	06/17/13 20:31	30,2540G	RD
pH (H)	5.7		SU	-	NA	1	-	06/17/13 21:30	1,9045D	RD
Cyanide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:31	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:19	1,7.3	TL

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-05
Client ID: RC-WC-061713-05
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 13:10
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	8.89		%	0.100	NA	1	-	06/17/13 20:31	30,2540G	RD
pH (H)	6.1		SU	-	NA	1	-	06/17/13 21:30	1,9045D	RD
Cyanide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:31	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:19	1,7.3	TL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-06
Client ID: RC-WC-061713-06
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 13:30
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	26.7		%	0.100	NA	1	-	06/17/13 20:31	30,2540G	RD
pH (H)	5.6		SU	-	NA	1	-	06/17/13 21:30	1,9045D	RD
Cyanide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:31	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:19	1,7.3	TL

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-07
Client ID: RC-WC-061713-07
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 13:45
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	8.98		%	0.100	NA	1	-	06/17/13 20:31	30,2540G	RD
pH (H)	5.8		SU	-	NA	1	-	06/17/13 21:30	1,9045D	RD
Cyanide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:31	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:19	1,7.3	TL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311048-08
Client ID: RC-WC-061713-08
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 06/17/13 14:10
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	10.0		%	0.100	NA	1	-	06/17/13 20:31	30,2540G	RD
pH (H)	5.8		SU	-	NA	1	-	06/17/13 21:30	1,9045D	RD
Cyanide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:31	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:19	1,7.3	TL

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG615834-1										
Cyanide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:31	1,7.3	TL
General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG615836-1										
Sulfide, Reactive	ND		mg/kg	10	--	1	06/18/13 17:30	06/18/13 19:19	1,7.3	TL

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORT DEVENS

Project Number: AC001.005

Lab Number: L1311048

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG615583-1								
pH	100		-		99-101	-		
General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG615834-2								
Cyanide, Reactive	47		-		30-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG615836-2								
Sulfide, Reactive	103		-		60-125	-		40

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORT DEVENS
Project Number: AC001.005

Lab Number: L1311048
Report Date: 06/26/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG615558-1 QC Sample: L1311008-01 Client ID: DUP Sample						
Solids, Total	84.7	85.2	%	1		20
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG615583-2 QC Sample: L1311008-01 Client ID: DUP Sample						
pH	8.0	7.9	SU	1		5
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG615834-3 QC Sample: L1311040-01 Client ID: DUP Sample						
Cyanide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG615836-3 QC Sample: L1311040-01 Client ID: DUP Sample						
Sulfide, Reactive	ND	ND	mg/kg	NC		40

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Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: 06/17/2013 18:05

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1311048-01A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-01B	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-01C	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-01D	Vial Large unpreserved	A	N/A	3.3	Y	Absent	8260HLW(2)
L1311048-01E	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-01F	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-01G	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-01H	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-02A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260HLW(14)

*Values in parentheses indicate holding time in days

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Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1311048-02B	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-02C	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-02D	Vial Large unpreserved	A	N/A	3.3	Y	Absent	8260HLW(2)
L1311048-02E	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-02F	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-02G	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-02H	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-03A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-03B	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-03C	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-03D	Vial Large unpreserved	A	N/A	3.3	Y	Absent	8260HLW(2)
L1311048-03E	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)

*Values in parentheses indicate holding time in days

Project Name: FORT DEVENS
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Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1311048-03F	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-03G	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-03H	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-04A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-04B	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-04C	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-04D	Vial Large unpreserved	A	N/A	3.3	Y	Absent	8260HLW(2)
L1311048-04E	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-04F	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)

*Values in parentheses indicate holding time in days

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Project Number: AC001.005

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Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1311048-04G	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-04H	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-05A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-05B	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-05C	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-05D	Vial Large unpreserved	A	N/A	3.3	Y	Absent	8260HLW(2)
L1311048-05E	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-05F	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-05G	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)

*Values in parentheses indicate holding time in days

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Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1311048-05H	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-06A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-06B	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-06C	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-06D	Vial Large unpreserved	A	N/A	3.3	Y	Absent	8260HLW(2)
L1311048-06E	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-06F	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-06G	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-06H	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-07A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-07B	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-07C	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-07D	Vial Large unpreserved	A	N/A	3.3	Y	Absent	8260HLW(2)

*Values in parentheses indicate holding time in days

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Report Date: 06/26/13

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1311048-07E	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-07F	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-07G	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-07H	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-08A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-08B	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-08C	Vial water preserved	A	N/A	3.3	Y	Absent	8260HLW(14)
L1311048-08D	Vial Large unpreserved	A	N/A	3.3	Y	Absent	8260HLW(2)
L1311048-08E	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)

*Values in parentheses indicate holding time in days

Project Name: FORT DEVENS
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Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1311048-08F	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-08G	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)
L1311048-08H	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),TPH-DRO-D(14),CD-TI(180)

*Values in parentheses indicate holding time in days

Project Name:	FORT DEVENS	**Lab Number:**	L1311048
Project Number:	AC001.005	**Report Date:**	06/26/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: Data Usability Report

Project Name:	FORT DEVENS	**Lab Number:**	L1311048
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Data Qualifiers

due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: FORT DEVENS
Project Number: AC001.005
Lab Number: L1311048
Report Date: 06/26/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised June 17, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D, 9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether, Ethyl tert-butyl ether, Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE). **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, 1,3,5-Trimethylbenzene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. **EPA 8015C:** TPH. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd In Lab: 6/17/13

ALPHA Job #: L1311048

ALPHA Analytical — Work Class Chemistry
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: Sovereign Consulting
Address: 16 Chestnut St Suite 525
Foxboro, MA 02035
Phone: 508-339-3200
Email: RLeary@sovcon.com

Project Information

Project Name: Fort Devens
Project Location: Devens, MA
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 6/24/13

Report Information - Data Deliverables

☐ ADEx ☒ EMAIL

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:
Only run TCLP if fails 20x rule.

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC: ☒ 8260 ☐ 624 ☐ 524.2	SVOC: ☒ ABN ☒ PAH + TCLP	METALS: ☐ MCP 13 ☐ RCRA5 ☐ RCRA8 ☐ TCLP	METALS: ☐ MCP 14 ☐ RCP 15 ☐ PP13	EPH: ☐ Ranges & Targets ☐ Ranges Only	VPH: ☐ Ranges & Targets ☐ Ranges Only	☒ PCB ☒ PEST	TPH: ☐ Quant Only ☐ Fingerprint	pH	Reactivity	Flashpoint	Herbicides 8151	Sample Comments	TOTAL # BOTTLES
11048-01	RC-WC-061713-01	6/17/13	1120	SE	LMS	X	X		X			X	X	X	X	X	X		
02	RC-WC-061713-02		1140																
03	RC-WC-061713-03		1210																
04	RC-WC-061713-04		1235																
05	RC-WC-061713-05		1310																
06	RC-WC-061713-06		1330																
07	RC-WC-061713-07		1345																
08	RC-WC-061713-08		1410																
						Container Type	V	A		A			A	A	A	A	A	A		
						Preservative	F	A		A			A	A	A	A	A	A		

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[illegible]	6/17/13 1720	[illegible]	6/17/13 1720

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1317827
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	09/15/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1317827-01	SA71-WC-091113-01	PLOW SHOP POND	09/11/13 11:30
L1317827-02	SA71-WC-091113-02	PLOW SHOP POND	09/11/13 11:40

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1317827
Project Number:	AC001.005	**Report Date:**	09/15/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/15/13

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

SAMPLE RESULTS

Lab ID: L1317827-01
Client ID: SA71-WC-091113-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/11/13 11:30
Date Received: 09/11/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Specific Conductance	640		umhos/cm	10	10.	1	-	09/11/13 21:21	1,9050A	EL

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

SAMPLE RESULTS

Lab ID: L1317827-02
Client ID: SA71-WC-091113-02
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 09/11/13 11:40
Date Received: 09/11/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Specific Conductance	1800		umhos/cm	10	10.	1	-	09/11/13 21:21	1,9050A	EL

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1317827

Report Date: 09/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG635427-1								
Specific Conductance	97		-		80-120	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG635427-2 QC Sample: L1317666-03 Client ID: DUP Sample						
Specific Conductance	42.	55	umhos/cm	**27**	Q	20

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1317827
Report Date: 09/15/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1317827-01A	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	COND-9050(28)
L1317827-02A	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	COND-9050(28)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1317827
Project Number:	AC001.005	**Report Date:**	09/15/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317827
Project Number:	AC001.005	**Report Date:**	09/15/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1317827
Project Number:	AC001.005	**Report Date:**	09/15/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised August 29, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE OF

Date Rec'd in Lab: 9/11/13

ALPHA Job #: L1317827

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Project Information

Project Name: Devens

Project Location: Plow Shop Pond

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way, Ste. 307

Holyoke, MA 01040

Phone: 413-540-0650

Fax: 413-540-0656

Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

5 Day -TAT

Due Date: 9/18/13 Time: PM

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

No ADR needed

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Conductivity												
	SA71-WC-091113-01	09/11/13	11:30	Sed	WJB	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
	SA71-WC-091113-02	09/11/13	11:40	Sed	WJB	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
						☐

ANALYTICAL REPORT

Lab Number:	L1319527
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	10/03/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1319527-01	RC-WC-100113-01	PLOW SHOP POND	10/01/13 09:20
L1319527-02	RC-WC-100113-02	PLOW SHOP POND	10/01/13 09:25
L1319527-03	RC-WC-100113-03	PLOW SHOP POND	10/01/13 09:40
L1319527-04	RC-WC-100113-04	PLOW SHOP POND	10/01/13 09:45

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1319527
Project Number: AC001.005 **Report Date:** 10/03/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

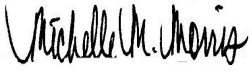
M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319527-01 through -04: The initial calibration blank and continuing calibration blank have concentrations above the LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 10/03/13

METALS

Project Name: DEVENS
Lab Number: L1319527
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-01
Client ID: RC-WC-100113-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 50%

Date Collected: 10/01/13 09:20
Date Received: 10/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	187	Q	mg/kg	0.137	0.017	5	10/02/13 14:00	10/03/13 11:48	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319527
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-02
Client ID: RC-WC-100113-02
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 50%

Date Collected: 10/01/13 09:25
Date Received: 10/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	195	Q	mg/kg	0.139	0.017	5	10/02/13 14:00	10/03/13 11:54	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319527
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-03
Client ID: RC-WC-100113-03
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 59%

Date Collected: 10/01/13 09:40
Date Received: 10/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	406	Q	mg/kg	0.473	0.058	20	10/02/13 14:00	10/03/13 12:07	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1319527
Project Number: AC001.005
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-04
Client ID: RC-WC-100113-04
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 22%

Date Collected: 10/01/13 09:45
Date Received: 10/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2700	Q	mg/kg	3.14	0.389	50	10/02/13 14:00	10/03/13 12:08	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319527
Report Date: 10/03/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04 Batch: WG640718-1										
Arsenic, Total	0.012	J	mg/kg	0.050	0.006	2	10/02/13 14:00	10/03/13 11:47	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1319527

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG640718-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	108		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG640718-4 WG640718-5 QC Sample: L1319527-01 Client ID: RC-WC-100113-01												
Arsenic, Total	187.	110	309	111		306	108		80-120	1		20
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG640718-6 WG640718-7 QC Sample: L1319573-06 Client ID: MS Sample												
Arsenic, Total	156.	547	696	99		744	108		80-120	7		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG640718-3 QC Sample: L1319527-01 Client ID: RC-WC-100113-01						
Arsenic, Total	187.	195	mg/kg	4		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-01
Client ID: RC-WC-100113-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/01/13 09:20
Date Received: 10/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	49.8		%	0.100	0.100	1	-	10/02/13 07:56	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-02
Client ID: RC-WC-100113-02
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/01/13 09:25
Date Received: 10/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	50.1		%	0.100	0.100	1	-	10/02/13 07:56	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-03
Client ID: RC-WC-100113-03
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/01/13 09:40
Date Received: 10/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	59.4		%	0.100	0.100	1	-	10/02/13 07:56	30,2540G	DJ

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1319527-04
Client ID: RC-WC-100113-04
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/01/13 09:45
Date Received: 10/01/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	22.2		%	0.100	0.100	1	-	10/02/13 07:56	30,2540G	DJ

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG640579-1 QC Sample: L1319527-01 Client ID: RC-WC-100113-01						
Solids, Total	49.8	52.6	%	5		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319527
Report Date: 10/03/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1319527-01A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319527-02A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319527-03A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319527-04A	Amber 120ml unpreserved	A	N/A	2.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1319527
Project Number:	AC001.005	**Report Date:**	10/03/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319527
Project Number:	AC001.005	**Report Date:**	10/03/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319527
Project Number:	AC001.005	**Report Date:**	10/03/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

2 of 3

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1319527

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total As by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials
L1319527-1	RC-WC-100113-01	10/1/13	09:20	Sed	WJB
-2	RC-WC-100113-02	10/1/13	0925	Sed	WJB
-3	RC-WC-100113-03	10/1/13	09:40	Sed	WJB
-4	RC-WC-100113-04	10/1/13	09:45	Sed	WJB

Container Type
Preservative

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-01(I) (rev. 5-JAN-12)

Relinquished By:	Date/Time	Received By:	Date/Time
	10/1/13		
10-1-13 16:40		10-1-13 16:00	
	10/2/13 04:00	Mansfield Lab	10/1/13 16:40
			10/2/13 8400

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

ANALYTICAL REPORT

Lab Number:	L1319993
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	10/08/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1319993-01	RC-WC-100713-01	PLOW SHOP POND	10/07/13 13:30
L1319993-02	RC-WC-100713-02	PLOW SHOP POND	10/07/13 13:35
L1319993-03	RC-WC-100713-03	PLOW SHOP POND	10/07/13 13:40
L1319993-04	RC-WC-100713-04	PLOW SHOP POND	10/07/13 13:45

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: DEVENS **Lab Number:** L1319993
Project Number: AC001.005 **Report Date:** 10/08/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Total Metals

The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1319993-01 through -04: The initial calibration blank and continuing calibration blank have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319993
Report Date: 10/08/13

Case Narrative (continued)

Total Solids

The WG641998-1 Laboratory Duplicate RPD (23%), performed on L1319993-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 10/08/13

METALS

Project Name: DEVENS
Lab Number: L1319993
Project Number: AC001.005
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-01
Client ID: RC-WC-100713-01
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 44%

Date Collected: 10/07/13 13:30
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	150	Q	mg/kg	0.162	0.020	5	10/07/13 20:00	10/08/13 11:50	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1319993
Project Number: AC001.005
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-02
Client ID: RC-WC-100713-02
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 46%

Date Collected: 10/07/13 13:35
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	102	Q	mg/kg	0.154	0.019	5	10/07/13 20:00	10/08/13 11:51	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1319993
Project Number: AC001.005
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-03
Client ID: RC-WC-100713-03
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 40%

Date Collected: 10/07/13 13:40
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	240	Q	mg/kg	0.180	0.022	5	10/07/13 20:00	10/08/13 11:54	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Lab Number: L1319993
Project Number: AC001.005
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-04
Client ID: RC-WC-100713-04
Sample Location: PLOW SHOP POND
Matrix: Sediment
Percent Solids: 51%

Date Collected: 10/07/13 13:45
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	254	Q	mg/kg	0.142	0.018	5	10/07/13 20:00	10/08/13 11:55	EPA 3050B	1,6020A	LR

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1319993
Report Date: 10/08/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04 Batch: WG641886-1										
Arsenic, Total	ND		mg/kg	0.050	0.006	2	10/07/13 20:00	10/08/13 11:49	1,6020A	LR

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1319993

Report Date: 10/08/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG641886-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	101		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG641886-4 WG641886-5 QC Sample: L1319995-01 Client ID: MS Sample												
Arsenic, Total	174.	550	765	107		742	103		80-120	3		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG641886-3 QC Sample: L1319995-01 Client ID: DUP Sample						
Arsenic, Total	174.	170	mg/kg	2		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-01
Client ID: RC-WC-100713-01
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 13:30
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	43.7		%	0.100	0.100	1	-	10/08/13 09:02	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-02
Client ID: RC-WC-100713-02
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 13:35
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	46.2		%	0.100	0.100	1	-	10/08/13 09:02	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-03
Client ID: RC-WC-100713-03
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 13:40
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	39.7		%	0.100	0.100	1	-	10/08/13 09:02	30,2540G	JW

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

SAMPLE RESULTS

Lab ID: L1319993-04
Client ID: RC-WC-100713-04
Sample Location: PLOW SHOP POND
Matrix: Sediment

Date Collected: 10/07/13 13:45
Date Received: 10/07/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	51.0		%	0.100	0.100	1	-	10/08/13 09:02	30,2540G	JW

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG641998-1 QC Sample: L1319993-01 Client ID: RC-WC-100713-01						
Solids, Total	43.7	54.8	%	**23**	Q	10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1319993
Report Date: 10/08/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1319993-01A	Amber 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319993-02A	Amber 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319993-03A	Amber 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1319993-04A	Amber 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1319993
Project Number:	AC001.005	**Report Date:**	10/08/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319993
Project Number:	AC001.005	**Report Date:**	10/08/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1319993
Project Number:	AC001.005	**Report Date:**	10/08/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

1 of 2

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 10/7/13

ALPHA Job #: L1319993

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste. 307
Holyoke, MA 01040
Phone: 413-540-0650
Fax: 413-540-0656
Email: RLeary@sovcon.com
☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Devens
Project Location: Plow Shop Pond
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED) 24 hr
Due Date: 10/8/13 Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Total As by 6020

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials
19993-01	RC-WC-100713-01	10/7/13	13:30	Sed	WJB/EEF
-02	RC-WC-100713-02		13:35		
-03	RC-WC-100713-03		13:40		
-04	RC-WC-100713-04		13:45		

Container Type
Preservative

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Erin	10/7/13		10/7/13 1600
	10/7/13 1650		10/7/13 16:50
	10/7/13 19:10	Mansfield Lab	10/7/13 19:10

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 01-01(I) (rev. 5-JAN-12)

ANALYTICAL REPORT

Lab Number:	L1321820
Client:	Sovereign Consulting 4 Open Square Way Suite 307 Holyoke, MA 01040
ATTN:	Rachel Leary
Phone:	(413) 540-0650
Project Name:	AC001.005
Project Number:	AC001.005
Report Date:	10/31/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1321820
Report Date: 10/31/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1321820-01	RC-WC-102513-01	DEVENS, MA	10/25/13 10:30
L1321820-02	RC-WC-102513-02	DEVENS, MA	10/25/13 10:45

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1321820
Report Date: 10/31/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

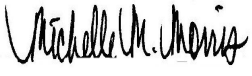
In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 10/31/13

METALS

Project Name:	AC001.005	**Lab Number:**	L1321820
Project Number:	AC001.005	**Report Date:**	10/31/13

SAMPLE RESULTS

Lab ID:	L1321820-01	Date Collected:	10/25/13 10:30
Client ID:	RC-WC-102513-01	Date Received:	10/25/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	TCLP/SPLP Ext. Date:	10/26/13 14:57

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Chromium, TCLP	ND		mg/l	0.20	--	1	10/31/13 09:37	10/31/13 12:15	EPA 3015	1,6010C	TT

Project Name:	AC001.005	**Lab Number:**	L1321820
Project Number:	AC001.005	**Report Date:**	10/31/13

SAMPLE RESULTS

Lab ID:	L1321820-02	Date Collected:	10/25/13 10:45
Client ID:	RC-WC-102513-02	Date Received:	10/25/13
Sample Location:	DEVENS, MA	Field Prep:	Not Specified
Matrix:	Sediment	TCLP/SPLP Ext. Date:	10/26/13 14:57

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	10/31/13 09:37	10/31/13 12:29	EPA 3015	1,6010C	TT
Chromium, TCLP	ND		mg/l	0.20	--	1	10/31/13 09:37	10/31/13 12:29	EPA 3015	1,6010C	TT

Project Name: AC001.005 **Lab Number:** L1321820

Project Number: AC001.005 **Report Date:** 10/31/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01-02 Batch: WG648374-1										
Arsenic, TCLP	ND		mg/l	1.0	--	1	10/31/13 09:37	10/31/13 12:07	1,6010C	TT
Chromium, TCLP	ND		mg/l	0.20	--	1	10/31/13 09:37	10/31/13 12:07	1,6010C	TT

Prep Information

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 10/26/13 14:57

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1321820

Report Date: 10/31/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 Batch: WG648374-2								
Arsenic, TCLP	100		-		75-125	-		20
Chromium, TCLP	95		-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1321820
Report Date: 10/31/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG648374-4 QC Sample: L1321820-01 Client ID: RC-WC-102513-01												
Arsenic, TCLP	ND	1.2	1.2	100		-	-		75-125	-		20
Chromium, TCLP	ND	2	1.9	95		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1321820
Report Date: 10/31/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG648374-3 QC Sample: L1321820-01 Client ID: RC-WC-102513-01						
Chromium, TCLP	ND	ND	mg/l	NC		20

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1321820
Report Date: 10/31/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1321820-01X	Plastic 250ml HNO3 preserved spl	A	<2	3.3	Y	Absent	CR-CI(180)
L1321820-02X	Plastic 250ml HNO3 preserved spl	A	<2	3.3	Y	Absent	AS-CI(180),CR-CI(180)

*Values in parentheses indicate holding time in days

Project Name:	AC001.005	**Lab Number:**	L1321820
Project Number:	AC001.005	**Report Date:**	10/31/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The lower value for the two columns has been reported due to obvious interference.

Report Format: Data Usability Report

Project Name:	AC001.005	**Lab Number:**	L1321820
Project Number:	AC001.005	**Report Date:**	10/31/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	AC001.005	**Lab Number:**	L1321820
Project Number:	AC001.005	**Report Date:**	10/31/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Serial No:10311313:56

1321820

CHAIN OF CUSTODY

PAGE 1 OF 1

1/2

10/29/13

ALPHA Job #: L1321820

Date Rec'd In Lab: 10/25/13

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: Sovereign Consulting Inc.

Address: 4 Open Square Way Sk307
Holyoke, MA 01040

Phone: 413-540-0650

Email: RLeary@sovcon.com

Additional Project Information:

Project Information

Project Name: AC001.005

Project Location: Devens

Project #: AC001.005

Project Manager: Rachel Leary

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved)

Date Due: ~~24 hr~~ 10/29/13 10/31/13

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client Info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC: ☐ 8260 ☐ 624 ☐ 524.2	SVOC: ☐ ABN ☐ PAH	METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15	METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13	EPH: ☐ Ranges & Targets ☐ Ranges Only	VPH: ☐ Ranges & Targets ☐ Ranges Only	☐ PCB ☐ PEST	TPH: ☐ Quant Only ☐ Fingerprint	Pest 608, Herb 8151	RCRA8 (+pH, Reactivity, Flash)	TCLP Cr	TCLP As	Sample Comments	TOTAL # BOTTLES
21321820-1	RC-WC-102513-01	10/25/13	10:30	Sed	WJB								X	X	X	X			
2	RC-WC-102513-02	10/25/13	10:45	Sed	WJB								X	X	X	X	X		
Container Type													A	A	A				
Preservative													A	A	A				

Sample Info: ☐ Filtration ☐ Field ☐ Lab to do ☐ Preservation ☐ Lab to do

Container Type: P = Plastic, A = Amber glass, V = Vial, G = Glass, B = Bacteria cup, C = Cube, O = Other, E = Encore, D = BOD Bottle

Preservative: A = None, B = HCl, C = HNO_3, D = H_2SO_4, E = NaOH, F = MeOH, G = $NaHSO_4$, H = $Na_2S_2O_3$, I = Ascorbic Acid, J = NH_4Cl, K = Zn Acetate, O = Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	10/25/13	Pat Creed	10/25/13 1225
[signature]	10/25/13 1600	[signature]	10/25/13 1600

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1321600
Client:	Sovereign Consulting 4 Open Square Way Suite 307 Holyoke, MA 01040
ATTN:	Rachel Leary
Phone:	(413) 540-0650
Project Name:	AC001.005
Project Number:	AC001.005
Report Date:	10/29/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1321600
Report Date: 10/29/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1321600-01	SA71-WC-102513-01	DEVENS, MA	10/25/13 10:15

Project Name:	AC001.005	**Lab Number:**	L1321600
Project Number:	AC001.005	**Report Date:**	10/29/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

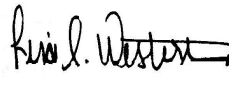
Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Lisa Westerlind

Title: Technical Director/Representative Date: 10/29/13

INORGANICS
&
MISCELLANEOUS

Project Name: AC001.005
Project Number: AC001.005
Lab Number: L1321600
Report Date: 10/29/13

SAMPLE RESULTS

Lab ID: L1321600-01
Client ID: SA71-WC-102513-01
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 10/25/13 10:15
Date Received: 10/25/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	10/28/13 23:51	1,1030	TL

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1321600
Report Date: 10/29/13

SAMPLE RESULTS

Lab ID: L1321600-01
Client ID: SA71-WC-102513-01
Sample Location: DEVENS, MA
Matrix: Sediment

Date Collected: 10/25/13 10:15
Date Received: 10/25/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.7		%	0.100	NA	1	-	10/28/13 10:19	30,2540G	MO
pH (H)	7.8		SU	-	NA	1	-	10/26/13 01:52	1,9045D	EL
Cyanide, Reactive	ND		mg/kg	10	--	1	10/28/13 20:05	10/28/13 22:35	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	10/28/13 20:05	10/28/13 22:20	1,7.3	TL

Project Name: AC001.005 **Lab Number:** L1321600

Project Number: AC001.005 **Report Date:** 10/29/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG647628-1										
Cyanide, Reactive	ND		mg/kg	10	--	1	10/28/13 20:05	10/28/13 22:31	1,7.3	TL
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG647629-1										
Sulfide, Reactive	ND		mg/kg	10	--	1	10/28/13 20:05	10/28/13 22:16	1,7.3	TL

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1321600
Report Date: 10/29/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG647174-1								
pH	100		-		99-101	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG647628-2								
Cyanide, Reactive	45		-		30-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG647629-2								
Sulfide, Reactive	110		-		60-125	-		40

Lab Duplicate Analysis
Batch Quality Control

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1321600
Report Date: 10/29/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG647174-2 QC Sample: L1321599-01 Client ID: DUP Sample						
pH	12.0	11.9	SU	1		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG647461-1 QC Sample: L1321526-01 Client ID: DUP Sample						
Solids, Total	90.1	90.5	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG647628-3 QC Sample: L1321600-01 Client ID: SA71-WC-102513-01						
Cyanide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG647629-3 QC Sample: L1321600-01 Client ID: SA71-WC-102513-01						
Sulfide, Reactive	ND	ND	mg/kg	NC		40

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1321600
Report Date: 10/29/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information	Custody Seal
Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1321600-01A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	IGNIT-1030(14),REACTS(14),TS(7),PH-9045(1),REACTCN(14)
L1321600-01B	Amber 120ml unpreserved	A	N/A	3.0	Y	Absent	IGNIT-1030(14),REACTS(14),TS(7),PH-9045(1),REACTCN(14)

*Values in parentheses indicate holding time in days

Project Name:	AC001.005	**Lab Number:**	L1321600
Project Number:	AC001.005	**Report Date:**	10/29/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The lower value for the two columns has been reported due to obvious interference.

Report Format: Data Usability Report

Project Name:	AC001.005	**Lab Number:**	L1321600
Project Number:	AC001.005	**Report Date:**	10/29/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	AC001.005	**Lab Number:**	L1321600
Project Number:	AC001.005	**Report Date:**	10/29/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

2/2

Date Rec'd in Lab: 10/25/13

ALPHA Job #: L1321600

ALPHA TECHNICAL World Class Chemistry
8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220
320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way, Ste 307
Holyoke, MA 01040
Phone: 413-540-0650
Email: RLeary@soucon.com

Additional Project Information:

Project Information

Project Name: AC001.005
Project Location: Devens
Project #: AC001.005
Project Manager: Rachel Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 10/29/13 24 hr

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; PCBs/pH React+Flash; PCBs (hold)

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC	SVOC	METALS	METALS	EPH	VPH	PCB	TPH	PCBs/pH React+Flash	PCBs (hold)					Sample Comments	TOTAL # BOTTLES
21600 - 1	SA71-WC-102513-01	10/25/13	10:15	Sed	WJB									X	X						
Container Type														A	A						
Preservative														A	A						

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	10/25/13	[signature]	10/25/13 1225
[signature]	10/25/13 1600	[signature]	10/25/13 1600

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1321884
Client:	Sovereign Consulting 4 Open Square Way Suite 307 Holyoke, MA 01040
ATTN:	Rachel Leary
Phone:	(413) 540-0650
Project Name:	DEVENS-AC001.005
Project Number:	AC001.005
Report Date:	11/04/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321884
Report Date: 11/04/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1321884-01	RC-WC-102913-01	RED COVE	10/29/13 10:00
L1321884-02	RC-WC-102913-02	RED COVE	10/29/13 10:10
L1321884-03	RC-WC-102913-03	RED COVE	10/29/13 10:20
L1321884-04	RC-WC-102913-04	RED COVE	10/29/13 10:30
L1321884-05	RC-WC-102913-05	RED COVE	10/29/13 10:40
L1321884-06	RC-WC-102913-06	RED COVE	10/29/13 10:50

Project Name: DEVENS-AC001.005 **Lab Number:** L1321884
Project Number: AC001.005 **Report Date:** 11/04/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Cynthia McQueen

Title: Technical Director/Representative Date: 11/04/13

METALS

Project Name:	DEVENS-AC001.005	**Lab Number:**	L1321884
Project Number:	AC001.005	**Report Date:**	11/04/13

SAMPLE RESULTS

Lab ID:	L1321884-01	Date Collected:	10/29/13 10:00
Client ID:	RC-WC-102913-01	Date Received:	10/30/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Soil	TCLP/SPLP Ext. Date:	10/31/13 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	11/01/13 13:08	11/01/13 21:08	EPA 3015	1,6010C	TT
Chromium, TCLP	ND		mg/l	0.20	--	1	11/01/13 13:08	11/01/13 21:08	EPA 3015	1,6010C	TT
Mercury, TCLP	ND		mg/l	0.0010	--	1	11/01/13 12:15	11/01/13 19:16	EPA 7470A	1,7470A	DR

Project Name: DEVENS-AC001.005 **Lab Number:** L1321884

Project Number: AC001.005 **Report Date:** 11/04/13

SAMPLE RESULTS

Lab ID: L1321884-02 Date Collected: 10/29/13 10:10

Client ID: RC-WC-102913-02 Date Received: 10/30/13

Sample Location: RED COVE Field Prep: Not Specified

Matrix: Soil TCLP/SPLP Ext. Date: 10/31/13 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	11/01/13 13:08	11/01/13 21:12	EPA 3015	1,6010C	TT
Chromium, TCLP	ND		mg/l	0.20	--	1	11/01/13 13:08	11/01/13 21:12	EPA 3015	1,6010C	TT

Project Name:	DEVENS-AC001.005	**Lab Number:**	L1321884
Project Number:	AC001.005	**Report Date:**	11/04/13

SAMPLE RESULTS

Lab ID:	L1321884-03	Date Collected:	10/29/13 10:20
Client ID:	RC-WC-102913-03	Date Received:	10/30/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Soil	TCLP/SPLP Ext. Date:	10/31/13 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	11/01/13 13:08	11/01/13 21:16	EPA 3015	1,6010C	TT
Chromium, TCLP	ND		mg/l	0.20	--	1	11/01/13 13:08	11/01/13 21:16	EPA 3015	1,6010C	TT
Mercury, TCLP	ND		mg/l	0.0010	--	1	11/01/13 12:15	11/01/13 19:18	EPA 7470A	1,7470A	DR

Project Name: DEVENS-AC001.005 **Lab Number:** L1321884

Project Number: AC001.005 **Report Date:** 11/04/13

SAMPLE RESULTS

Lab ID: L1321884-04 Date Collected: 10/29/13 10:30

Client ID: RC-WC-102913-04 Date Received: 10/30/13

Sample Location: RED COVE Field Prep: Not Specified

Matrix: Soil TCLP/SPLP Ext. Date: 10/31/13 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	11/01/13 13:08	11/01/13 21:20	EPA 3015	1,6010C	TT
Chromium, TCLP	ND		mg/l	0.20	--	1	11/01/13 13:08	11/01/13 21:20	EPA 3015	1,6010C	TT
Mercury, TCLP	ND		mg/l	0.0010	--	1	11/01/13 12:15	11/01/13 19:20	EPA 7470A	1,7470A	DR

Project Name: DEVENS-AC001.005 **Lab Number:** L1321884

Project Number: AC001.005 **Report Date:** 11/04/13

SAMPLE RESULTS

Lab ID: L1321884-05 Date Collected: 10/29/13 10:40

Client ID: RC-WC-102913-05 Date Received: 10/30/13

Sample Location: RED COVE Field Prep: Not Specified

Matrix: Soil TCLP/SPLP Ext. Date: 10/31/13 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	11/01/13 13:08	11/01/13 21:23	EPA 3015	1,6010C	TT

Project Name: DEVENS-AC001.005 **Lab Number:** L1321884

Project Number: AC001.005 **Report Date:** 11/04/13

SAMPLE RESULTS

Lab ID: L1321884-06 Date Collected: 10/29/13 10:50

Client ID: RC-WC-102913-06 Date Received: 10/30/13

Sample Location: RED COVE Field Prep: Not Specified

Matrix: Soil TCLP/SPLP Ext. Date: 10/31/13 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	11/01/13 13:08	11/01/13 21:27	EPA 3015	1,6010C	TT
Chromium, TCLP	ND		mg/l	0.20	--	1	11/01/13 13:08	11/01/13 21:27	EPA 3015	1,6010C	TT
Mercury, TCLP	ND		mg/l	0.0010	--	1	11/01/13 12:15	11/01/13 19:22	EPA 7470A	1,7470A	DR

Project Name: DEVENS-AC001.005 **Lab Number:** L1321884

Project Number: AC001.005 **Report Date:** 11/04/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01,03-04,06 Batch: WG648788-1										
Mercury, TCLP	ND		mg/l	0.0010	--	1	11/01/13 12:15	11/01/13 19:12	1,7470A	DR

Prep Information

Digestion Method: EPA 7470A

TCLP/SPLP Extraction Date: 10/31/13 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01-06 Batch: WG648798-1										
Arsenic, TCLP	ND		mg/l	1.0	--	1	11/01/13 13:08	11/01/13 16:37	1,6010C	TT
Chromium, TCLP	ND		mg/l	0.20	--	1	11/01/13 13:08	11/01/13 16:37	1,6010C	TT

Prep Information

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 10/31/13 16:45

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321884

Report Date: 11/04/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01,03-04,06 Batch: WG648788-2								
Mercury, TCLP	106		-		80-120	-		
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-06 Batch: WG648798-2								
Arsenic, TCLP	100		-		75-125	-		20
Chromium, TCLP	100		-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321884
Report Date: 11/04/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01,03-04,06 QC Batch ID: WG648788-4 QC Sample: L1321971-01 Client ID: MS Sample												
Mercury, TCLP	ND	0.025	0.0256	102		-	-		70-130	-		20
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG648798-4 QC Sample: L1321971-01 Client ID: MS Sample												
Arsenic, TCLP	ND	1.2	1.2	100		-	-		75-125	-		20
Chromium, TCLP	ND	2	1.9	95		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321884
Report Date: 11/04/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01,03-04,06 QC Batch ID: WG648788-3 QC Sample: L1321971-01 Client ID: DUP Sample						
Mercury, TCLP	ND	ND	mg/l	NC		20
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG648798-3 QC Sample: L1321971-01 Client ID: DUP Sample						
Arsenic, TCLP	ND	ND	mg/l	NC		20
Chromium, TCLP	ND	ND	mg/l	NC		20

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321884
Report Date: 11/04/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1321884-01A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	-
L1321884-01X	Plastic 250ml HNO3 preserved spl	A	<2	3.0	Y	Absent	AS-CI(180),HG-C(28),CR-CI(180)
L1321884-02A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	-
L1321884-02X	Plastic 250ml HNO3 preserved spl	A	<2	3.0	Y	Absent	AS-CI(180),CR-CI(180)
L1321884-03A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	-
L1321884-03X	Plastic 250ml HNO3 preserved spl	A	<2	3.0	Y	Absent	AS-CI(180),HG-C(28),CR-CI(180)
L1321884-04A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	-
L1321884-04X	Plastic 250ml HNO3 preserved spl	A	<2	3.0	Y	Absent	AS-CI(180),HG-C(28),CR-CI(180)
L1321884-05A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	-
L1321884-05X	Plastic 250ml HNO3 preserved spl	A	<2	3.0	Y	Absent	AS-CI(180)
L1321884-06A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	-
L1321884-06X	Plastic 250ml HNO3 preserved spl	A	<2	3.0	Y	Absent	AS-CI(180),HG-C(28),CR-CI(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS-AC001.005	**Lab Number:**	L1321884
Project Number:	AC001.005	**Report Date:**	11/04/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The lower value for the two columns has been reported due to obvious interference.

Report Format: Data Usability Report

Project Name:	DEVENS-AC001.005	**Lab Number:**	L1321884
Project Number:	AC001.005	**Report Date:**	11/04/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	DEVENS-AC001.005	**Lab Number:**	L1321884
Project Number:	AC001.005	**Report Date:**	11/04/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 10/29/13

ALPHA Job #: L1321777 L1321884 10/30/13

ALPHA TICAL
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way Ste 307, Holyoke, MA 01040
Phone: 413-540-0650
Email: RLeary@sovcon.com

Project Information

Project Name: Devens-AC001.005
Project Location: Red Cove
Project #: AC001.005
Project Manager: R. Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved)
Date Due: ~~24 hr~~ 11/1/13 ~~10/30/13~~

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint

SAMPLE INFO: Filtration ☐ Field ☐ Lab to do; Preservation ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Pest 8081, Herb 8151	PCB, pH, React, Flash	RCRA8	TCLP-PS	TCLP-Cr	TCLP Hg	Sample Comments	TOTAL # BOTTLES
21777-01	RC-WC-102913-01	10/29/13	10:00	Sed	WJB	X	X	X	X	X	X	* Run TCLP if triggered	
02	RC-WC-102913-02	↓	10:10	↓	↓	X	X	X	X	X			
03	RC-WC-102913-03	↓	10:20	↓	↓	X	X	X	X	X	X		
04	RC-WC-102913-04	↓	10:30	↓	↓	X	X	X	X	X	X		
05	RC-WC-102913-05	↓	10:40	↓	↓	X	X	X	X				
06	RC-WC-102913-06	↓	10:50	↓	↓	X	X	X	X	X	X		
	Container Type					A	A	A					
	Preservative					A	A	A					

Container Type: P= Plastic; A= Amber glass; V= Vial; G= Glass; B= Bacteria cup; C= Cube; O= Other; E= Encore; D= BOD Bottle

Preservative: A= None; B= HCl; C= HNO_3; D= H_2SO_4; E= NaOH; F= MeOH; G= $NaHSO_4$; H = $Na_2S_2O_3$; I= Ascorbic Acid; J = NH_4Cl; K= Zn Acetate; O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	10/29/13	[signature]	10/29/13 1115
Pat Weaver	10/29/13 1151	[signature]	10/29/13 1155

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.
FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1321771
Client:	Sovereign Consulting 4 Open Square Way Suite 307 Holyoke, MA 01040
ATTN:	Rachel Leary
Phone:	(413) 540-0650
Project Name:	DEVENS-AC001.005
Project Number:	AC001.005
Report Date:	10/31/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1321771-01	RC-WC-102913-01	RED COVE	10/29/13 10:00
L1321771-02	RC-WC-102913-02	RED COVE	10/29/13 10:10
L1321771-03	RC-WC-102913-03	RED COVE	10/29/13 10:20
L1321771-04	RC-WC-102913-04	RED COVE	10/29/13 10:30
L1321771-05	RC-WC-102913-05	RED COVE	10/29/13 10:40
L1321771-06	RC-WC-102913-06	RED COVE	10/29/13 10:50

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771
Project Number: AC001.005 **Report Date:** 10/31/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS-AC001.005	**Lab Number:**	L1321771
Project Number:	AC001.005	**Report Date:**	10/31/13

Case Narrative (continued)

Metals

The WG647886-4 MS recoveries for arsenic (0%) and chromium (0%), performed on L1321771-01, do not apply because the sample concentrations are greater than four times the spike amount added.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 10/31/13

ORGANICS

PCBS

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-01	Date Collected:	10/29/13 10:00
Client ID:	RC-WC-102913-01	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	10/29/13 18:27
Analytical Date:	10/30/13 14:31	Cleanup Method1:	EPA 3665A
Analyst:	JT	Cleanup Date1:	10/30/13
Percent Solids:	40%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	10/30/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	82.0	--	1	A
Aroclor 1221	ND		ug/kg	82.0	--	1	A
Aroclor 1232	ND		ug/kg	82.0	--	1	A
Aroclor 1242	ND		ug/kg	82.0	--	1	A
Aroclor 1248	ND		ug/kg	82.0	--	1	A
Aroclor 1254	ND		ug/kg	82.0	--	1	A
Aroclor 1260	ND		ug/kg	82.0	--	1	A
Aroclor 1262	ND		ug/kg	82.0	--	1	A
Aroclor 1268	ND		ug/kg	82.0	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	86		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-02	Date Collected:	10/29/13 10:10
Client ID:	RC-WC-102913-02	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	10/29/13 18:27
Analytical Date:	10/30/13 14:43	Cleanup Method1:	EPA 3665A
Analyst:	JT	Cleanup Date1:	10/30/13
Percent Solids:	72%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	10/30/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	46.0	--	1	A
Aroclor 1221	ND		ug/kg	46.0	--	1	A
Aroclor 1232	ND		ug/kg	46.0	--	1	A
Aroclor 1242	ND		ug/kg	46.0	--	1	A
Aroclor 1248	ND		ug/kg	46.0	--	1	A
Aroclor 1254	ND		ug/kg	46.0	--	1	A
Aroclor 1260	ND		ug/kg	46.0	--	1	A
Aroclor 1262	ND		ug/kg	46.0	--	1	A
Aroclor 1268	ND		ug/kg	46.0	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	71		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-03	Date Collected:	10/29/13 10:20
Client ID:	RC-WC-102913-03	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	10/29/13 18:27
Analytical Date:	10/30/13 14:56	Cleanup Method1:	EPA 3665A
Analyst:	JT	Cleanup Date1:	10/30/13
Percent Solids:	35%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	10/30/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	93.4	--	1	A
Aroclor 1221	ND		ug/kg	93.4	--	1	A
Aroclor 1232	ND		ug/kg	93.4	--	1	A
Aroclor 1242	ND		ug/kg	93.4	--	1	A
Aroclor 1248	ND		ug/kg	93.4	--	1	A
Aroclor 1254	ND		ug/kg	93.4	--	1	A
Aroclor 1260	ND		ug/kg	93.4	--	1	A
Aroclor 1262	ND		ug/kg	93.4	--	1	A
Aroclor 1268	ND		ug/kg	93.4	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	47		30-150	A
Decachlorobiphenyl	47		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	64		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-04	Date Collected:	10/29/13 10:30
Client ID:	RC-WC-102913-04	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	10/29/13 18:27
Analytical Date:	10/30/13 15:08	Cleanup Method1:	EPA 3665A
Analyst:	JT	Cleanup Date1:	10/30/13
Percent Solids:	43%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	10/30/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	74.8	--	1	A
Aroclor 1221	ND		ug/kg	74.8	--	1	A
Aroclor 1232	ND		ug/kg	74.8	--	1	A
Aroclor 1242	ND		ug/kg	74.8	--	1	A
Aroclor 1248	ND		ug/kg	74.8	--	1	A
Aroclor 1254	ND		ug/kg	74.8	--	1	A
Aroclor 1260	ND		ug/kg	74.8	--	1	A
Aroclor 1262	ND		ug/kg	74.8	--	1	A
Aroclor 1268	ND		ug/kg	74.8	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	76		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-05	Date Collected:	10/29/13 10:40
Client ID:	RC-WC-102913-05	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	10/29/13 18:27
Analytical Date:	10/30/13 15:20	Cleanup Method1:	EPA 3665A
Analyst:	JT	Cleanup Date1:	10/30/13
Percent Solids:	61%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	10/30/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	53.1	--	1	A
Aroclor 1221	ND		ug/kg	53.1	--	1	A
Aroclor 1232	ND		ug/kg	53.1	--	1	A
Aroclor 1242	ND		ug/kg	53.1	--	1	A
Aroclor 1248	ND		ug/kg	53.1	--	1	A
Aroclor 1254	ND		ug/kg	53.1	--	1	A
Aroclor 1260	ND		ug/kg	53.1	--	1	A
Aroclor 1262	ND		ug/kg	53.1	--	1	A
Aroclor 1268	ND		ug/kg	53.1	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	65		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	81		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-06	Date Collected:	10/29/13 10:50
Client ID:	RC-WC-102913-06	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	10/29/13 18:27
Analytical Date:	10/30/13 15:32	Cleanup Method1:	EPA 3665A
Analyst:	JT	Cleanup Date1:	10/30/13
Percent Solids:	46%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	10/30/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	71.3	--	1	A
Aroclor 1221	ND		ug/kg	71.3	--	1	A
Aroclor 1232	ND		ug/kg	71.3	--	1	A
Aroclor 1242	ND		ug/kg	71.3	--	1	A
Aroclor 1248	ND		ug/kg	71.3	--	1	A
Aroclor 1254	ND		ug/kg	71.3	--	1	A
Aroclor 1260	ND		ug/kg	71.3	--	1	A
Aroclor 1262	ND		ug/kg	71.3	--	1	A
Aroclor 1268	ND		ug/kg	71.3	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	78		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 10/30/13 15:45
Analyst: JT

Extraction Method: EPA 3546
Extraction Date: 10/29/13 18:27
Cleanup Method1: EPA 3665A
Cleanup Date1: 10/30/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 10/30/13

Parameter	Result	Qualifier	Units	RL	MDL	Column
PCB by GC - Westborough Lab for sample(s): 01-06 Batch: WG647929-1						
Aroclor 1016	ND		ug/kg	32.2	--	A
Aroclor 1221	ND		ug/kg	32.2	--	A
Aroclor 1232	ND		ug/kg	32.2	--	A
Aroclor 1242	ND		ug/kg	32.2	--	A
Aroclor 1248	ND		ug/kg	32.2	--	A
Aroclor 1254	ND		ug/kg	32.2	--	A
Aroclor 1260	ND		ug/kg	32.2	--	A
Aroclor 1262	ND		ug/kg	32.2	--	A
Aroclor 1268	ND		ug/kg	32.2	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	73		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	90		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
PCB by GC - Westborough Lab Associated sample(s): 01-06 Batch: WG647929-2 WG647929-3									
Aroclor 1016	75		69		40-140	8		50	A
Aroclor 1260	74		70		40-140	6		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		61		30-150	A
Decachlorobiphenyl	71		62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		61		30-150	B
Decachlorobiphenyl	80		73		30-150	B

PESTICIDES

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-01	Date Collected:	10/29/13 10:00
Client ID:	RC-WC-102913-01	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8081B	Extraction Date:	10/29/13 17:11
Analytical Date:	10/30/13 15:45	Cleanup Method1:	EPA 3620B
Analyst:	SH	Cleanup Date1:	10/30/13
Percent Solids:	40%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	19.5	--	1	A
Lindane	ND		ug/kg	8.14	--	1	A
Alpha-BHC	ND		ug/kg	8.14	--	1	A
Beta-BHC	ND		ug/kg	19.5	--	1	A
Heptachlor	ND		ug/kg	9.76	--	1	A
Aldrin	ND		ug/kg	19.5	--	1	A
Heptachlor epoxide	ND		ug/kg	36.6	--	1	A
Endrin	ND		ug/kg	8.14	--	1	A
Endrin aldehyde	ND		ug/kg	24.4	--	1	A
Endrin ketone	ND		ug/kg	19.5	--	1	A
Dieldrin	ND		ug/kg	12.2	--	1	A
4,4'-DDE	ND		ug/kg	19.5	--	1	A
4,4'-DDD	ND		ug/kg	19.5	--	1	A
4,4'-DDT	ND		ug/kg	36.6	--	1	A
Endosulfan I	ND		ug/kg	19.5	--	1	A
Endosulfan II	ND		ug/kg	19.5	--	1	A
Endosulfan sulfate	ND		ug/kg	8.14	--	1	A
Methoxychlor	ND		ug/kg	36.6	--	1	A
Toxaphene	ND		ug/kg	366	--	1	A
Chlordane	ND		ug/kg	159	--	1	A
cis-Chlordane	ND		ug/kg	24.4	--	1	A
trans-Chlordane	ND		ug/kg	24.4	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	108		30-150	A
Decachlorobiphenyl	95		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	101		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-01	Date Collected:	10/29/13 10:00
Client ID:	RC-WC-102913-01	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 8151A
Analytical Method:	1,8151A(M)	Extraction Date:	10/30/13 01:13
Analytical Date:	10/31/13 10:32	Methylation Date:	10/30/13 19:54
Analyst:	SH		
Percent Solids:	40%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
MCPP	ND		mg/kg	8.10	--	1	A
MCPA	ND		mg/kg	8.10	--	1	A
Dalapon	ND		mg/kg	0.081	--	1	A
Dicamba	ND		mg/kg	0.081	--	1	A
Dichloroprop	ND		mg/kg	0.081	--	1	A
2,4-D	ND		mg/kg	0.405	--	1	A
2,4-DB	ND		mg/kg	0.405	--	1	A
2,4,5-T	ND		mg/kg	0.405	--	1	A
2,4,5-TP (Silvex)	ND		mg/kg	0.405	--	1	A
Dinoseb	ND		mg/kg	0.081	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	144		30-150	A
DCAA	31		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-02	Date Collected:	10/29/13 10:10
Client ID:	RC-WC-102913-02	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8081B	Extraction Date:	10/29/13 17:11
Analytical Date:	10/30/13 15:58	Cleanup Method1:	EPA 3620B
Analyst:	SH	Cleanup Date1:	10/30/13
Percent Solids:	72%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	11.0	--	1	A
Lindane	ND		ug/kg	4.60	--	1	A
Alpha-BHC	ND		ug/kg	4.60	--	1	A
Beta-BHC	ND		ug/kg	11.0	--	1	A
Heptachlor	ND		ug/kg	5.52	--	1	A
Aldrin	ND		ug/kg	11.0	--	1	A
Heptachlor epoxide	ND		ug/kg	20.7	--	1	A
Endrin	ND		ug/kg	4.60	--	1	A
Endrin aldehyde	ND		ug/kg	13.8	--	1	A
Endrin ketone	ND		ug/kg	11.0	--	1	A
Dieldrin	ND		ug/kg	6.90	--	1	A
4,4'-DDE	ND		ug/kg	11.0	--	1	A
4,4'-DDD	ND		ug/kg	11.0	--	1	A
4,4'-DDT	ND		ug/kg	20.7	--	1	A
Endosulfan I	ND		ug/kg	11.0	--	1	A
Endosulfan II	ND		ug/kg	11.0	--	1	A
Endosulfan sulfate	ND		ug/kg	4.60	--	1	A
Methoxychlor	ND		ug/kg	20.7	--	1	A
Toxaphene	ND		ug/kg	207	--	1	A
Chlordane	ND		ug/kg	89.8	--	1	A
cis-Chlordane	ND		ug/kg	13.8	--	1	A
trans-Chlordane	ND		ug/kg	13.8	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	100		30-150	A
Decachlorobiphenyl	79		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	91		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-02	Date Collected:	10/29/13 10:10
Client ID:	RC-WC-102913-02	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 8151A
Analytical Method:	1,8151A(M)	Extraction Date:	10/30/13 01:13
Analytical Date:	10/31/13 10:52	Methylation Date:	10/30/13 19:54
Analyst:	SH		
Percent Solids:	72%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
MCPP	ND		mg/kg	4.63	--	1	A
MCPA	ND		mg/kg	4.63	--	1	A
Dalapon	ND		mg/kg	0.046	--	1	A
Dicamba	ND		mg/kg	0.046	--	1	A
Dichloroprop	ND		mg/kg	0.046	--	1	A
2,4-D	ND		mg/kg	0.231	--	1	A
2,4-DB	ND		mg/kg	0.231	--	1	A
2,4,5-T	ND		mg/kg	0.231	--	1	A
2,4,5-TP (Silvex)	ND		mg/kg	0.231	--	1	A
Dinoseb	ND		mg/kg	0.046	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	112		30-150	A
DCAA	72		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-03	Date Collected:	10/29/13 10:20
Client ID:	RC-WC-102913-03	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8081B	Extraction Date:	10/29/13 17:11
Analytical Date:	10/30/13 16:10	Cleanup Method1:	EPA 3620B
Analyst:	SH	Cleanup Date1:	10/30/13
Percent Solids:	35%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	21.8	--	1	A
Lindane	ND		ug/kg	9.07	--	1	A
Alpha-BHC	ND		ug/kg	9.07	--	1	A
Beta-BHC	ND		ug/kg	21.8	--	1	A
Heptachlor	ND		ug/kg	10.9	--	1	A
Aldrin	ND		ug/kg	21.8	--	1	A
Heptachlor epoxide	ND		ug/kg	40.8	--	1	A
Endrin	ND		ug/kg	9.07	--	1	A
Endrin aldehyde	ND		ug/kg	27.2	--	1	A
Endrin ketone	ND		ug/kg	21.8	--	1	A
Dieldrin	ND		ug/kg	13.6	--	1	A
4,4'-DDE	ND		ug/kg	21.8	--	1	A
4,4'-DDD	ND		ug/kg	21.8	--	1	A
4,4'-DDT	ND		ug/kg	40.8	--	1	A
Endosulfan I	ND		ug/kg	21.8	--	1	A
Endosulfan II	ND		ug/kg	21.8	--	1	A
Endosulfan sulfate	ND		ug/kg	9.07	--	1	A
Methoxychlor	ND		ug/kg	40.8	--	1	A
Toxaphene	ND		ug/kg	408	--	1	A
Chlordane	ND		ug/kg	177	--	1	A
cis-Chlordane	ND		ug/kg	27.2	--	1	A
trans-Chlordane	ND		ug/kg	27.2	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	94		30-150	A
Decachlorobiphenyl	73		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	96		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-03	Date Collected:	10/29/13 10:20
Client ID:	RC-WC-102913-03	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 8151A
Analytical Method:	1,8151A(M)	Extraction Date:	10/30/13 01:13
Analytical Date:	10/31/13 11:12	Methylation Date:	10/30/13 19:54
Analyst:	SH		
Percent Solids:	35%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
MCPP	ND		mg/kg	9.37	--	1	A
MCPA	ND		mg/kg	9.37	--	1	A
Dalapon	ND		mg/kg	0.094	--	1	A
Dicamba	ND		mg/kg	0.094	--	1	A
Dichloroprop	ND		mg/kg	0.094	--	1	A
2,4-D	ND		mg/kg	0.469	--	1	A
2,4-DB	ND		mg/kg	0.469	--	1	A
2,4,5-T	ND		mg/kg	0.469	--	1	A
2,4,5-TP (Silvex)	ND		mg/kg	0.469	--	1	A
Dinoseb	ND		mg/kg	0.094	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	138		30-150	A
DCAA	100		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-04	Date Collected:	10/29/13 10:30
Client ID:	RC-WC-102913-04	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8081B	Extraction Date:	10/29/13 17:11
Analytical Date:	10/30/13 16:23	Cleanup Method1:	EPA 3620B
Analyst:	SH	Cleanup Date1:	10/30/13
Percent Solids:	43%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	17.8	--	1	A
Lindane	ND		ug/kg	7.44	--	1	A
Alpha-BHC	ND		ug/kg	7.44	--	1	A
Beta-BHC	ND		ug/kg	17.8	--	1	A
Heptachlor	ND		ug/kg	8.93	--	1	A
Aldrin	ND		ug/kg	17.8	--	1	A
Heptachlor epoxide	ND		ug/kg	33.5	--	1	A
Endrin	ND		ug/kg	7.44	--	1	A
Endrin aldehyde	ND		ug/kg	22.3	--	1	A
Endrin ketone	ND		ug/kg	17.8	--	1	A
Dieldrin	ND		ug/kg	11.2	--	1	A
4,4'-DDE	ND		ug/kg	17.8	--	1	A
4,4'-DDD	ND		ug/kg	17.8	--	1	A
4,4'-DDT	ND		ug/kg	33.5	--	1	A
Endosulfan I	ND		ug/kg	17.8	--	1	A
Endosulfan II	ND		ug/kg	17.8	--	1	A
Endosulfan sulfate	ND		ug/kg	7.44	--	1	A
Methoxychlor	ND		ug/kg	33.5	--	1	A
Toxaphene	ND		ug/kg	335	--	1	A
Chlordane	ND		ug/kg	145	--	1	A
cis-Chlordane	ND		ug/kg	22.3	--	1	A
trans-Chlordane	ND		ug/kg	22.3	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	124		30-150	A
Decachlorobiphenyl	81		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	96		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-04	Date Collected:	10/29/13 10:30
Client ID:	RC-WC-102913-04	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 8151A
Analytical Method:	1,8151A(M)	Extraction Date:	10/30/13 01:13
Analytical Date:	10/31/13 11:32	Methylation Date:	10/30/13 19:54
Analyst:	SH		
Percent Solids:	43%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
MCPP	ND		mg/kg	7.71	--	1	A
MCPA	ND		mg/kg	7.71	--	1	A
Dalapon	ND		mg/kg	0.077	--	1	A
Dicamba	ND		mg/kg	0.077	--	1	A
Dichloroprop	ND		mg/kg	0.077	--	1	A
2,4-D	ND		mg/kg	0.386	--	1	A
2,4-DB	ND		mg/kg	0.386	--	1	A
2,4,5-T	ND		mg/kg	0.386	--	1	A
2,4,5-TP (Silvex)	ND		mg/kg	0.386	--	1	A
Dinoseb	ND		mg/kg	0.077	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	116		30-150	A
DCAA	91		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-05	Date Collected:	10/29/13 10:40
Client ID:	RC-WC-102913-05	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8081B	Extraction Date:	10/29/13 17:11
Analytical Date:	10/30/13 16:36	Cleanup Method1:	EPA 3620B
Analyst:	SH	Cleanup Date1:	10/30/13
Percent Solids:	61%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	12.3	--	1	A
Lindane	ND		ug/kg	5.13	--	1	A
Alpha-BHC	ND		ug/kg	5.13	--	1	A
Beta-BHC	ND		ug/kg	12.3	--	1	A
Heptachlor	ND		ug/kg	6.16	--	1	A
Aldrin	ND		ug/kg	12.3	--	1	A
Heptachlor epoxide	ND		ug/kg	23.1	--	1	A
Endrin	ND		ug/kg	5.13	--	1	A
Endrin aldehyde	ND		ug/kg	15.4	--	1	A
Endrin ketone	ND		ug/kg	12.3	--	1	A
Dieldrin	ND		ug/kg	7.70	--	1	A
4,4'-DDE	ND		ug/kg	12.3	--	1	A
4,4'-DDD	ND		ug/kg	12.3	--	1	B
4,4'-DDT	ND		ug/kg	23.1	--	1	A
Endosulfan I	ND		ug/kg	12.3	--	1	A
Endosulfan II	ND		ug/kg	12.3	--	1	A
Endosulfan sulfate	ND		ug/kg	5.13	--	1	A
Methoxychlor	ND		ug/kg	23.1	--	1	A
Toxaphene	ND		ug/kg	231	--	1	A
Chlordane	ND		ug/kg	100	--	1	A
cis-Chlordane	ND		ug/kg	15.4	--	1	A
trans-Chlordane	ND		ug/kg	15.4	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	**193**	Q	30-150	A
Decachlorobiphenyl	94		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	103		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-05	Date Collected:	10/29/13 10:40
Client ID:	RC-WC-102913-05	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 8151A
Analytical Method:	1,8151A(M)	Extraction Date:	10/30/13 01:13
Analytical Date:	10/31/13 11:52	Methylation Date:	10/30/13 19:54
Analyst:	SH		
Percent Solids:	61%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
MCPP	ND		mg/kg	5.34	--	1	A
MCPA	ND		mg/kg	5.34	--	1	A
Dalapon	ND		mg/kg	0.053	--	1	A
Dicamba	ND		mg/kg	0.053	--	1	A
Dichloroprop	ND		mg/kg	0.053	--	1	A
2,4-D	ND		mg/kg	0.267	--	1	A
2,4-DB	ND		mg/kg	0.267	--	1	A
2,4,5-T	ND		mg/kg	0.267	--	1	A
2,4,5-TP (Silvex)	ND		mg/kg	0.267	--	1	A
Dinoseb	ND		mg/kg	0.053	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	135		30-150	A
DCAA	112		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-06	Date Collected:	10/29/13 10:50
Client ID:	RC-WC-102913-06	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 3546
Analytical Method:	1,8081B	Extraction Date:	10/29/13 17:11
Analytical Date:	10/30/13 16:49	Cleanup Method1:	EPA 3620B
Analyst:	SH	Cleanup Date1:	10/30/13
Percent Solids:	46%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	17.2	--	1	A
Lindane	ND		ug/kg	7.17	--	1	A
Alpha-BHC	ND		ug/kg	7.17	--	1	A
Beta-BHC	ND		ug/kg	17.2	--	1	A
Heptachlor	ND		ug/kg	8.60	--	1	A
Aldrin	ND		ug/kg	17.2	--	1	A
Heptachlor epoxide	ND		ug/kg	32.2	--	1	A
Endrin	ND		ug/kg	7.17	--	1	A
Endrin aldehyde	ND		ug/kg	21.5	--	1	A
Endrin ketone	ND		ug/kg	17.2	--	1	A
Dieldrin	ND		ug/kg	10.7	--	1	A
4,4'-DDE	ND		ug/kg	17.2	--	1	A
4,4'-DDD	ND		ug/kg	17.2	--	1	A
4,4'-DDT	ND		ug/kg	32.2	--	1	A
Endosulfan I	ND		ug/kg	17.2	--	1	A
Endosulfan II	ND		ug/kg	17.2	--	1	A
Endosulfan sulfate	ND		ug/kg	7.17	--	1	A
Methoxychlor	ND		ug/kg	32.2	--	1	A
Toxaphene	ND		ug/kg	322	--	1	A
Chlordane	ND		ug/kg	140	--	1	A
cis-Chlordane	ND		ug/kg	21.5	--	1	A
trans-Chlordane	ND		ug/kg	21.5	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	**162**	Q	30-150	A
Decachlorobiphenyl	66		30-150	A
2,4,5,6-Tetrachloro-m-xylene	63		30-150	B
Decachlorobiphenyl	80		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID:	L1321771-06	Date Collected:	10/29/13 10:50
Client ID:	RC-WC-102913-06	Date Received:	10/29/13
Sample Location:	RED COVE	Field Prep:	Not Specified
Matrix:	Sediment	Extraction Method:	EPA 8151A
Analytical Method:	1,8151A(M)	Extraction Date:	10/30/13 01:13
Analytical Date:	10/31/13 12:12	Methylation Date:	10/30/13 19:54
Analyst:	SH		
Percent Solids:	46%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
MCPP	ND		mg/kg	7.24	--	1	A
MCPA	ND		mg/kg	7.24	--	1	A
Dalapon	ND		mg/kg	0.072	--	1	A
Dicamba	ND		mg/kg	0.072	--	1	A
Dichloroprop	ND		mg/kg	0.072	--	1	A
2,4-D	ND		mg/kg	0.362	--	1	A
2,4-DB	ND		mg/kg	0.362	--	1	A
2,4,5-T	ND		mg/kg	0.362	--	1	A
2,4,5-TP (Silvex)	ND		mg/kg	0.362	--	1	A
Dinoseb	ND		mg/kg	0.072	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	**209**	Q	30-150	A
DCAA	103		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 10/30/13 15:32
Analyst: SH

Extraction Method: EPA 3546
Extraction Date: 10/29/13 17:11
Cleanup Method1: EPA 3620B
Cleanup Date1: 10/30/13

Parameter	Result	Qualifier	Units	RL	MDL	Column
Pesticides by GC - Westborough Lab for sample(s): 01-06 Batch: WG647928-1						
Delta-BHC	ND		ug/kg	7.90	--	A
Lindane	ND		ug/kg	3.29	--	A
Alpha-BHC	ND		ug/kg	3.29	--	A
Beta-BHC	ND		ug/kg	7.90	--	A
Heptachlor	ND		ug/kg	3.95	--	A
Aldrin	ND		ug/kg	7.90	--	A
Heptachlor epoxide	ND		ug/kg	14.8	--	A
Endrin	ND		ug/kg	3.29	--	A
Endrin aldehyde	ND		ug/kg	9.87	--	A
Endrin ketone	ND		ug/kg	7.90	--	A
Dieldrin	ND		ug/kg	4.94	--	A
4,4'-DDE	ND		ug/kg	7.90	--	A
4,4'-DDD	ND		ug/kg	7.90	--	A
4,4'-DDT	ND		ug/kg	14.8	--	A
Endosulfan I	ND		ug/kg	7.90	--	A
Endosulfan II	ND		ug/kg	7.90	--	A
Endosulfan sulfate	ND		ug/kg	3.29	--	A
Methoxychlor	ND		ug/kg	14.8	--	A
Toxaphene	ND		ug/kg	148	--	A
Chlordane	ND		ug/kg	64.2	--	A
cis-Chlordane	ND		ug/kg	9.87	--	A
trans-Chlordane	ND		ug/kg	9.87	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	93		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	97		30-150	B

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A(M)
Analytical Date: 10/31/13 09:13
Analyst: SH

Extraction Method: EPA 8151A
Extraction Date: 10/30/13 01:13

Methylation Date: 10/30/13 19:54

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-06 Batch: WG647974-1						
MCPP	ND		mg/kg	3.31	--	A
MCPA	ND		mg/kg	3.31	--	A
Dalapon	ND		mg/kg	0.033	--	A
Dicamba	ND		mg/kg	0.033	--	A
Dichloroprop	ND		mg/kg	0.033	--	A
2,4-D	ND		mg/kg	0.166	--	A
2,4-DB	ND		mg/kg	0.166	--	A
2,4,5-T	ND		mg/kg	0.166	--	A
2,4,5-TP (Silvex)	ND		mg/kg	0.166	--	A
Dinoseb	ND		mg/kg	0.033	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	86		30-150	A
DCAA	97		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Pesticides by GC - Westborough Lab Associated sample(s): 01-06 Batch: WG647928-2 WG647928-3									
Delta-BHC	86		102		30-150	17		30	A
Lindane	91		106		30-150	15		30	A
Alpha-BHC	90		102		30-150	13		30	A
Beta-BHC	85		99		30-150	15		30	A
Heptachlor	90		108		30-150	18		30	A
Aldrin	90		106		30-150	16		30	A
Heptachlor epoxide	82		99		30-150	19		30	A
Endrin	86		104		30-150	19		30	A
Endrin aldehyde	66		87		30-150	27		30	A
Endrin ketone	73		91		30-150	22		30	A
Dieldrin	89		106		30-150	17		30	A
4,4'-DDE	83		101		30-150	20		30	A
4,4'-DDD	85		104		30-150	20		30	A
4,4'-DDT	88		108		30-150	20		30	A
Endosulfan I	86		102		30-150	17		30	A
Endosulfan II	79		96		30-150	19		30	A
Endosulfan sulfate	70		88		30-150	23		30	A
Methoxychlor	89		112		30-150	23		30	A
cis-Chlordane	98		117		30-150	18		30	A
trans-Chlordane	86		105		30-150	20		30	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Pesticides by GC - Westborough Lab Associated sample(s): 01-06 Batch: WG647928-2 WG647928-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		88		30-150	A
Decachlorobiphenyl	97		112		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		80		30-150	B
Decachlorobiphenyl	104		112		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-06 Batch: WG647974-2 WG647974-3									
MCPP	104		97		30-150	7		30	A
MCPA	87		92		30-150	6		30	A
Dalapon	81		93		30-150	14		30	A
Dicamba	69		78		30-150	12		30	A
Dichloroprop	95		103		30-150	8		30	A
2,4-D	91		98		30-150	7		30	A
2,4-DB	101		108		30-150	7		30	A
2,4,5-T	82		91		30-150	10		30	A
2,4,5-TP (Silvex)	92		105		30-150	13		30	A
Dinoseb	**7**	Q	**10**	Q	30-150	30		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	83		89		30-150	A
DCAA	91		98		30-150	B

METALS

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-01 Date Collected: 10/29/13 10:00

Client ID: RC-WC-102913-01 Date Received: 10/29/13

Sample Location: RED COVE Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 40%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	240		mg/kg	0.94	--	1	10/29/13 14:44	10/30/13 09:23	EPA 3050B	1,6010C	TT
Barium, Total	32		mg/kg	0.94	--	1	10/29/13 14:44	10/30/13 09:23	EPA 3050B	1,6010C	TT
Cadmium, Total	1.8		mg/kg	0.94	--	1	10/29/13 14:44	10/30/13 09:23	EPA 3050B	1,6010C	TT
Chromium, Total	430		mg/kg	0.94	--	1	10/29/13 14:44	10/30/13 09:23	EPA 3050B	1,6010C	TT
Lead, Total	30		mg/kg	4.7	--	1	10/29/13 14:44	10/30/13 09:23	EPA 3050B	1,6010C	TT
Mercury, Total	11		mg/kg	0.38	--	2	10/31/13 10:09	10/31/13 13:23	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	1.9	--	1	10/29/13 14:44	10/30/13 09:23	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.94	--	1	10/29/13 14:44	10/30/13 09:23	EPA 3050B	1,6010C	TT

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-02 Date Collected: 10/29/13 10:10

Client ID: RC-WC-102913-02 Date Received: 10/29/13

Sample Location: RED COVE Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 72%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	110		mg/kg	0.54	--	1	10/29/13 14:44	10/30/13 09:59	EPA 3050B	1,6010C	TT
Barium, Total	22		mg/kg	0.54	--	1	10/29/13 14:44	10/30/13 09:59	EPA 3050B	1,6010C	TT
Cadmium, Total	0.61		mg/kg	0.54	--	1	10/29/13 14:44	10/30/13 09:59	EPA 3050B	1,6010C	TT
Chromium, Total	130		mg/kg	0.54	--	1	10/29/13 14:44	10/30/13 09:59	EPA 3050B	1,6010C	TT
Lead, Total	16		mg/kg	2.7	--	1	10/29/13 14:44	10/30/13 09:59	EPA 3050B	1,6010C	TT
Mercury, Total	1.9		mg/kg	0.11	--	1	10/31/13 10:09	10/31/13 13:17	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	1.1	--	1	10/29/13 14:44	10/30/13 09:59	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.54	--	1	10/29/13 14:44	10/30/13 09:59	EPA 3050B	1,6010C	TT

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-03 Date Collected: 10/29/13 10:20

Client ID: RC-WC-102913-03 Date Received: 10/29/13

Sample Location: RED COVE Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 35%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	150		mg/kg	1.1	--	1	10/29/13 14:44	10/30/13 10:03	EPA 3050B	1,6010C	TT
Barium, Total	23		mg/kg	1.1	--	1	10/29/13 14:44	10/30/13 10:03	EPA 3050B	1,6010C	TT
Cadmium, Total	ND		mg/kg	1.1	--	1	10/29/13 14:44	10/30/13 10:03	EPA 3050B	1,6010C	TT
Chromium, Total	170		mg/kg	1.1	--	1	10/29/13 14:44	10/30/13 10:03	EPA 3050B	1,6010C	TT
Lead, Total	26		mg/kg	5.5	--	1	10/29/13 14:44	10/30/13 10:03	EPA 3050B	1,6010C	TT
Mercury, Total	4.3		mg/kg	0.22	--	1	10/31/13 10:09	10/31/13 13:27	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	2.2	--	1	10/29/13 14:44	10/30/13 10:03	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	1.1	--	1	10/29/13 14:44	10/30/13 10:03	EPA 3050B	1,6010C	TT

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-04 Date Collected: 10/29/13 10:30

Client ID: RC-WC-102913-04 Date Received: 10/29/13

Sample Location: RED COVE Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 43%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	140		mg/kg	0.89	--	1	10/29/13 14:44	10/30/13 10:06	EPA 3050B	1,6010C	TT
Barium, Total	25		mg/kg	0.89	--	1	10/29/13 14:44	10/30/13 10:06	EPA 3050B	1,6010C	TT
Cadmium, Total	0.92		mg/kg	0.89	--	1	10/29/13 14:44	10/30/13 10:06	EPA 3050B	1,6010C	TT
Chromium, Total	210		mg/kg	0.89	--	1	10/29/13 14:44	10/30/13 10:06	EPA 3050B	1,6010C	TT
Lead, Total	18		mg/kg	4.4	--	1	10/29/13 14:44	10/30/13 10:06	EPA 3050B	1,6010C	TT
Mercury, Total	4.1		mg/kg	0.17	--	1	10/31/13 10:09	10/31/13 13:29	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	1.8	--	1	10/29/13 14:44	10/30/13 10:06	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.89	--	1	10/29/13 14:44	10/30/13 10:06	EPA 3050B	1,6010C	TT

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-05 Date Collected: 10/29/13 10:40

Client ID: RC-WC-102913-05 Date Received: 10/29/13

Sample Location: RED COVE Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 61%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	160		mg/kg	0.64	--	1	10/29/13 14:44	10/30/13 10:10	EPA 3050B	1,6010C	TT
Barium, Total	28		mg/kg	0.64	--	1	10/29/13 14:44	10/30/13 10:10	EPA 3050B	1,6010C	TT
Cadmium, Total	0.77		mg/kg	0.64	--	1	10/29/13 14:44	10/30/13 10:10	EPA 3050B	1,6010C	TT
Chromium, Total	88		mg/kg	0.64	--	1	10/29/13 14:44	10/30/13 10:10	EPA 3050B	1,6010C	TT
Lead, Total	15		mg/kg	3.2	--	1	10/29/13 14:44	10/30/13 10:10	EPA 3050B	1,6010C	TT
Mercury, Total	1.3		mg/kg	0.12	--	1	10/31/13 10:09	10/31/13 13:31	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	1.3	--	1	10/29/13 14:44	10/30/13 10:10	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.64	--	1	10/29/13 14:44	10/30/13 10:10	EPA 3050B	1,6010C	TT

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-06 Date Collected: 10/29/13 10:50

Client ID: RC-WC-102913-06 Date Received: 10/29/13

Sample Location: RED COVE Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 46%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	520		mg/kg	0.85	--	1	10/29/13 14:44	10/30/13 10:13	EPA 3050B	1,6010C	TT
Barium, Total	44		mg/kg	0.85	--	1	10/29/13 14:44	10/30/13 10:13	EPA 3050B	1,6010C	TT
Cadmium, Total	2.1		mg/kg	0.85	--	1	10/29/13 14:44	10/30/13 10:13	EPA 3050B	1,6010C	TT
Chromium, Total	400		mg/kg	0.85	--	1	10/29/13 14:44	10/30/13 10:13	EPA 3050B	1,6010C	TT
Lead, Total	33		mg/kg	4.2	--	1	10/29/13 14:44	10/30/13 10:13	EPA 3050B	1,6010C	TT
Mercury, Total	8.5		mg/kg	0.17	--	1	10/31/13 10:09	10/31/13 13:33	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	1.7	--	1	10/29/13 14:44	10/30/13 10:13	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.85	--	1	10/29/13 14:44	10/30/13 10:13	EPA 3050B	1,6010C	TT

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-06 Batch: WG647886-1										
Arsenic, Total	ND		mg/kg	0.40	--	1	10/29/13 14:44	10/30/13 09:16	1,6010C	TT
Barium, Total	ND		mg/kg	0.40	--	1	10/29/13 14:44	10/30/13 09:16	1,6010C	TT
Cadmium, Total	ND		mg/kg	0.40	--	1	10/29/13 14:44	10/30/13 09:16	1,6010C	TT
Chromium, Total	ND		mg/kg	0.40	--	1	10/29/13 14:44	10/30/13 09:16	1,6010C	TT
Lead, Total	ND		mg/kg	2.0	--	1	10/29/13 14:44	10/30/13 09:16	1,6010C	TT
Selenium, Total	ND		mg/kg	0.80	--	1	10/29/13 14:44	10/30/13 09:16	1,6010C	TT
Silver, Total	ND		mg/kg	0.40	--	1	10/29/13 14:44	10/30/13 09:16	1,6010C	TT

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-06 Batch: WG648217-1										
Mercury, Total	ND		mg/kg	0.08	--	1	10/31/13 10:09	10/31/13 12:20	1,7471B	MC

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-06 Batch: WG647886-2 SRM Lot Number: 0518-10-02								
Arsenic, Total	100		-		81-119	-		
Barium, Total	96		-		83-118	-		
Cadmium, Total	94		-		82-117	-		
Chromium, Total	92		-		80-119	-		
Lead, Total	94		-		80-120	-		
Selenium, Total	102		-		80-120	-		
Silver, Total	102		-		66-134	-		
Total Metals - Westborough Lab Associated sample(s): 01-06 Batch: WG648217-2 SRM Lot Number: 0518-10-02								
Mercury, Total	127		-		67-133	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG647886-4 QC Sample: L1321771-01 Client ID: RC-WC-102913-01												
Arsenic, Total	240	23.1	220	**0**	Q	-	-		75-125	-		35
Barium, Total	32	386	400	95		-	-		75-125	-		35
Cadmium, Total	1.8	9.83	10	83		-	-		75-125	-		35
Chromium, Total	430	38.6	370	**0**	Q	-	-		75-125	-		35
Lead, Total	30	98.3	120	92		-	-		75-125	-		35
Selenium, Total	ND	23.1	24	104		-	-		75-125	-		35
Silver, Total	ND	57.8	55	95		-	-		75-125	-		35
Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG648217-4 QC Sample: L1321542-16 Client ID: MS Sample												
Mercury, Total	0.27	0.146	0.48	**143**	Q	-	-		70-130	-		35

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG647886-3 QC Sample: L1321771-01 Client ID: RC-WC-102913-01						
Arsenic, Total	240	200	mg/kg	18		35
Barium, Total	32	32	mg/kg	0		35
Cadmium, Total	1.8	1.6	mg/kg	12		35
Chromium, Total	430	340	mg/kg	23		35
Lead, Total	30	29	mg/kg	3		35
Selenium, Total	ND	ND	mg/kg	NC		35
Silver, Total	ND	ND	mg/kg	NC		35
Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG648217-3 QC Sample: L1321542-16 Client ID: DUP Sample						
Mercury, Total	0.27	0.25	mg/kg	8		35

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-01
Client ID: RC-WC-102913-01
Sample Location: RED COVE
Matrix: Sediment

Date Collected: 10/29/13 10:00
Date Received: 10/29/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	10/29/13 20:35	1,1030	TL

Project Name: DEVENS-AC001.005
Project Number: AC001.005
Lab Number: L1321771
Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-02
Client ID: RC-WC-102913-02
Sample Location: RED COVE
Matrix: Sediment

Date Collected: 10/29/13 10:10
Date Received: 10/29/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	10/29/13 20:35	1,1030	TL

Project Name: DEVENS-AC001.005
Project Number: AC001.005
Lab Number: L1321771
Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-03
Client ID: RC-WC-102913-03
Sample Location: RED COVE
Matrix: Sediment

Date Collected: 10/29/13 10:20
Date Received: 10/29/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	10/29/13 20:35	1,1030	TL

Project Name: DEVENS-AC001.005
Project Number: AC001.005
Lab Number: L1321771
Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-04
Client ID: RC-WC-102913-04
Sample Location: RED COVE
Matrix: Sediment

Date Collected: 10/29/13 10:30
Date Received: 10/29/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	10/29/13 20:35	1,1030	TL

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-05
Client ID: RC-WC-102913-05
Sample Location: RED COVE
Matrix: Sediment

Date Collected: 10/29/13 10:40
Date Received: 10/29/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	10/29/13 20:35	1,1030	TL

Project Name: DEVENS-AC001.005
Project Number: AC001.005
Lab Number: L1321771
Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-06
Client ID: RC-WC-102913-06
Sample Location: RED COVE
Matrix: Sediment

Date Collected: 10/29/13 10:50
Date Received: 10/29/13
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	10/29/13 20:35	1,1030	TL

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-01
Client ID: RC-WC-102913-01
Sample Location: RED COVE
Matrix: Sediment

Date Collected: 10/29/13 10:00
Date Received: 10/29/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	40.3		%	0.100	NA	1	-	10/29/13 14:14	30,2540G	DG
pH (H)	11.7		SU	-	NA	1	-	10/30/13 00:06	1,9045D	EL
Cyanide, Reactive	ND		mg/kg	10	--	1	10/29/13 17:10	10/29/13 19:22	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	10/29/13 17:10	10/29/13 19:12	1,7.3	TL

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-02
Client ID: RC-WC-102913-02
Sample Location: RED COVE
Matrix: Sediment

Date Collected: 10/29/13 10:10
Date Received: 10/29/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	71.6		%	0.100	NA	1	-	10/29/13 14:14	30,2540G	DG
pH (H)	7.2		SU	-	NA	1	-	10/30/13 00:06	1,9045D	EL
Cyanide, Reactive	ND		mg/kg	10	--	1	10/29/13 17:10	10/29/13 19:22	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	10/29/13 17:10	10/29/13 19:13	1,7.3	TL

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-03
Client ID: RC-WC-102913-03
Sample Location: RED COVE
Matrix: Sediment

Date Collected: 10/29/13 10:20
Date Received: 10/29/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	35.3		%	0.100	NA	1	-	10/29/13 14:14	30,2540G	DG
pH (H)	11.6		SU	-	NA	1	-	10/30/13 00:06	1,9045D	EL
Cyanide, Reactive	ND		mg/kg	10	--	1	10/29/13 17:10	10/29/13 19:22	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	10/29/13 17:10	10/29/13 19:13	1,7.3	TL

Project Name: DEVENS-AC001.005
Project Number: AC001.005
Lab Number: L1321771
Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-04
Client ID: RC-WC-102913-04
Sample Location: RED COVE
Matrix: Sediment

Date Collected: 10/29/13 10:30
Date Received: 10/29/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	43.1		%	0.100	NA	1	-	10/29/13 14:14	30,2540G	DG
pH (H)	11.8		SU	-	NA	1	-	10/30/13 00:06	1,9045D	EL
Cyanide, Reactive	ND		mg/kg	10	--	1	10/29/13 17:10	10/29/13 19:23	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	10/29/13 17:10	10/29/13 19:13	1,7.3	TL

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-05
Client ID: RC-WC-102913-05
Sample Location: RED COVE
Matrix: Sediment

Date Collected: 10/29/13 10:40
Date Received: 10/29/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	61.2		%	0.100	NA	1	-	10/29/13 14:14	30,2540G	DG
pH (H)	11.7		SU	-	NA	1	-	10/30/13 00:06	1,9045D	EL
Cyanide, Reactive	ND		mg/kg	10	--	1	10/29/13 17:10	10/29/13 19:23	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	10/29/13 17:10	10/29/13 19:14	1,7.3	TL

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

SAMPLE RESULTS

Lab ID: L1321771-06
Client ID: RC-WC-102913-06
Sample Location: RED COVE
Matrix: Sediment

Date Collected: 10/29/13 10:50
Date Received: 10/29/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	45.6		%	0.100	NA	1	-	10/29/13 14:14	30,2540G	DG
pH (H)	11.2		SU	-	NA	1	-	10/30/13 00:06	1,9045D	EL
Cyanide, Reactive	ND		mg/kg	10	--	1	10/29/13 17:10	10/29/13 19:23	1,7.3	TL
Sulfide, Reactive	20		mg/kg	10	--	1	10/29/13 17:10	10/29/13 19:14	1,7.3	TL

Project Name: DEVENS-AC001.005 **Lab Number:** L1321771

Project Number: AC001.005 **Report Date:** 10/31/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG647875-1										
Cyanide, Reactive	ND		mg/kg	10	--	1	10/29/13 17:10	10/29/13 19:19	1,7.3	TL
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG647876-1										
Sulfide, Reactive	ND		mg/kg	10	--	1	10/29/13 17:10	10/29/13 19:09	1,7.3	TL

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS-AC001.005

Project Number: AC001.005

Lab Number: L1321771

Report Date: 10/31/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG647875-2								
Cyanide, Reactive	73		-		30-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG647876-2								
Sulfide, Reactive	82		-		60-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG647943-1								
pH	100		-		99-101	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG647874-1 QC Sample: L1321581-04 Client ID: DUP Sample						
Solids, Total	83.4	83.1	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG647875-3 QC Sample: L1321505-01 Client ID: DUP Sample						
Cyanide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG647876-3 QC Sample: L1321505-01 Client ID: DUP Sample						
Sulfide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG647943-2 QC Sample: L1321771-01 Client ID: RC-WC-102913-01						
pH (H)	11.7	11.7	SU	0		5

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1321771-01A	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)
L1321771-01B	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)
L1321771-01C	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)
L1321771-02A	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)
L1321771-02B	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)

*Values in parentheses indicate holding time in days

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1321771-02C	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)
L1321771-03A	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)
L1321771-03B	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)
L1321771-03C	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)
L1321771-04A	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)
L1321771-04B	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)
L1321771-04C	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)

*Values in parentheses indicate holding time in days

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1321771-05A	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)
L1321771-05B	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)
L1321771-05C	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)
L1321771-06A	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)
L1321771-06B	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)
L1321771-06C	Amber 250ml unpreserved	A	N/A	5.5	Y	Absent	IGNIT-1030(14),REACTS(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),TS(7),PB-TI(180),PH-9045(1),SE-TI(180),PEST-8081(14),HERB-8151(14),HG-T(28),REACTCN(14),CD-TI(180)

Container Comments

L1321771-01C

L1321771-02C

L1321771-03C

L1321771-04C

*Values in parentheses indicate holding time in days

Project Name: DEVENS-AC001.005
Project Number: AC001.005

Lab Number: L1321771
Report Date: 10/31/13

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)

Container Comments

L1321771-05C

L1321771-06C

*Values in parentheses indicate holding time in days

Project Name:	DEVENS-AC001.005	**Lab Number:**	L1321771
Project Number:	AC001.005	**Report Date:**	10/31/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The lower value for the two columns has been reported due to obvious interference.

Report Format: Data Usability Report

Project Name:	DEVENS-AC001.005	**Lab Number:**	L1321771
Project Number:	AC001.005	**Report Date:**	10/31/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	DEVENS-AC001.005	**Lab Number:**	L1321771
Project Number:	AC001.005	**Report Date:**	10/31/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 10/29/13

ALPHA Job #: L1321771

ALPHA ANALYTICAL World Class Chemistry
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Project Information

Project Name: Devens-AC001.005
Project Location: Red Cove
Project #: AC001.005
Project Manager: R. Leary
ALPHA Quote #:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way Ste 307, Holyoke, MA 01040
Phone: 413-540-0650
Email: RLeary@sovcon.com

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 24 hr 10/30/13

Additional Project Information:

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint

SAMPLE INFO: Filtration ☐ Field ☐ Lab to do; Preservation ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Pest 8081, Herb 8151	PCBs, pH, React, Flash	TRCRA8 *	Sample Comments	TOTAL # BOTTLES
21771-01	RC-WC-102913-01	10/29/13	10:00	Sed	WJB	X	X	X	* Run TCLP if triggered	
-02	RC-WC-102913-02	↓	10:10	↓	↓	X	X	X		
-03	RC-WC-102913-03	↓	10:20	↓	↓	X	X	X		
-04	RC-WC-102913-04	↓	10:30	↓	↓	X	X	X		
-05	RC-WC-102913-05	↓	10:40	↓	↓	X	X	X		
-06	RC-WC-102913-06	↓	10:50	↓	↓	X	X	X		
					Container Type	A	A	A		
					Preservative	A	A	A		

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature] Pat Walker	10/29/13 1151	Pat Walker [signature]	10/29/13 1115 10/29/13 1165

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1323043
Client:	Sovereign Consulting 4 Open Square Way Suite 307 Holyoke, MA 01040
ATTN:	Rachel Leary
Phone:	(413) 540-0650
Project Name:	AC001.005
Project Number:	AC001.005
Report Date:	11/15/13

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1323043-01	RC-WC-111213-01	DEVENS	11/12/13 12:02
L1323043-02	RC-WC-111213-02	DEVENS	11/12/13 12:04
L1323043-03	RC-WC-111213-03	DEVENS	11/12/13 12:06
L1323043-04	RC-WC-111213-04	DEVENS	11/12/13 12:08
L1323043-05	RC-WC-111213-05	DEVENS	11/12/13 12:10
L1323043-06	RC-WC-111213-06	DEVENS	11/12/13 12:12
L1323043-07	RC-WC-111213-07	DEVENS	11/12/13 12:14
L1323043-08	RC-WC-111213-08	DEVENS	11/12/13 12:16

Project Name:	AC001.005	**Lab Number:**	L1323043
Project Number:	AC001.005	**Report Date:**	11/15/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	AC001.005	**Lab Number:**	L1323043
Project Number:	AC001.005	**Report Date:**	11/15/13

Case Narrative (continued)

Semivolatile Organics

The surrogate recoveries were below the acceptance criteria for 2-fluorophenol; however, re-extraction achieved similar results. The results of both extractions are reported for the following samples:

-01: Original (6%), Re-Extract (4%)

-02: Original (7%), Re-Extract (5%)

-03: Original (6%), Re-Extract (2%)

-04: Original (7%), Re-Extract (8%)

-05: Original (5%), Re-Extract (4%)

-06: Original (7%), Re-Extract (5%)

-07: Original (6%), Re-Extract (3%)

-08: Original (7%), Re-Extract (2%)

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Lisa Westerlind

Title: Technical Director/Representative Date: 11/15/13

ORGANICS

VOLATILES

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-01	Date Collected:	11/12/13 12:02
Client ID:	RC-WC-111213-01	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	11/14/13 10:30		
Analyst:	BN		
Percent Solids:	52%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	1600	--	1
1,1-Dichloroethane	ND		ug/kg	230	--	1
Chloroform	ND		ug/kg	230	--	1
Carbon tetrachloride	ND		ug/kg	160	--	1
1,2-Dichloropropane	ND		ug/kg	540	--	1
Dibromochloromethane	ND		ug/kg	160	--	1
1,1,2-Trichloroethane	ND		ug/kg	230	--	1
Tetrachloroethene	ND		ug/kg	160	--	1
Chlorobenzene	ND		ug/kg	160	--	1
Trichlorofluoromethane	ND		ug/kg	780	--	1
1,2-Dichloroethane	ND		ug/kg	160	--	1
1,1,1-Trichloroethane	ND		ug/kg	160	--	1
Bromodichloromethane	ND		ug/kg	160	--	1
trans-1,3-Dichloropropene	ND		ug/kg	160	--	1
cis-1,3-Dichloropropene	ND		ug/kg	160	--	1
1,1-Dichloropropene	ND		ug/kg	780	--	1
Bromoform	ND		ug/kg	620	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	160	--	1
Benzene	ND		ug/kg	160	--	1
Toluene	ND		ug/kg	230	--	1
Ethylbenzene	ND		ug/kg	160	--	1
Chloromethane	ND		ug/kg	780	--	1
Bromomethane	ND		ug/kg	310	--	1
Vinyl chloride	ND		ug/kg	310	--	1
Chloroethane	ND		ug/kg	310	--	1
1,1-Dichloroethene	ND		ug/kg	160	--	1
trans-1,2-Dichloroethene	ND		ug/kg	230	--	1
Trichloroethene	ND		ug/kg	160	--	1
1,2-Dichlorobenzene	ND		ug/kg	780	--	1
1,3-Dichlorobenzene	ND		ug/kg	780	--	1
1,4-Dichlorobenzene	ND		ug/kg	780	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-01 Date Collected: 11/12/13 12:02

Client ID: RC-WC-111213-01 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	310	--	1
p/m-Xylene	ND		ug/kg	310	--	1
o-Xylene	ND		ug/kg	310	--	1
Xylenes, Total	ND		ug/kg	310	--	1
cis-1,2-Dichloroethene	ND		ug/kg	160	--	1
Dibromomethane	ND		ug/kg	1600	--	1
1,4-Dichlorobutane	ND		ug/kg	1600	--	1
1,2,3-Trichloropropane	ND		ug/kg	1600	--	1
Styrene	ND		ug/kg	310	--	1
Dichlorodifluoromethane	ND		ug/kg	1600	--	1
Acetone	ND		ug/kg	5600	--	1
Carbon disulfide	ND		ug/kg	1600	--	1
2-Butanone	ND		ug/kg	1600	--	1
Vinyl acetate	ND		ug/kg	1600	--	1
4-Methyl-2-pentanone	ND		ug/kg	1600	--	1
2-Hexanone	ND		ug/kg	1600	--	1
Ethyl methacrylate	ND		ug/kg	1600	--	1
Acrylonitrile	ND		ug/kg	620	--	1
Bromochloromethane	ND		ug/kg	780	--	1
Tetrahydrofuran	ND		ug/kg	3100	--	1
2,2-Dichloropropane	ND		ug/kg	780	--	1
1,2-Dibromoethane	ND		ug/kg	620	--	1
1,3-Dichloropropane	ND		ug/kg	780	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	160	--	1
Bromobenzene	ND		ug/kg	780	--	1
n-Butylbenzene	ND		ug/kg	160	--	1
sec-Butylbenzene	ND		ug/kg	160	--	1
tert-Butylbenzene	ND		ug/kg	780	--	1
o-Chlorotoluene	ND		ug/kg	780	--	1
p-Chlorotoluene	ND		ug/kg	780	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	780	--	1
Hexachlorobutadiene	ND		ug/kg	780	--	1
Isopropylbenzene	ND		ug/kg	160	--	1
p-Isopropyltoluene	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	780	--	1
n-Propylbenzene	ND		ug/kg	160	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	780	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	780	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	780	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-01 Date Collected: 11/12/13 12:02

Client ID: RC-WC-111213-01 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	780	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	780	--	1
Ethyl ether	ND		ug/kg	780	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	94		70-130

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-02	Date Collected:	11/12/13 12:04
Client ID:	RC-WC-111213-02	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	11/14/13 10:57		
Analyst:	BN		
Percent Solids:	52%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	1600	--	1
1,1-Dichloroethane	ND		ug/kg	240	--	1
Chloroform	ND		ug/kg	240	--	1
Carbon tetrachloride	ND		ug/kg	160	--	1
1,2-Dichloropropane	ND		ug/kg	560	--	1
Dibromochloromethane	ND		ug/kg	160	--	1
1,1,2-Trichloroethane	ND		ug/kg	240	--	1
Tetrachloroethene	ND		ug/kg	160	--	1
Chlorobenzene	ND		ug/kg	160	--	1
Trichlorofluoromethane	ND		ug/kg	800	--	1
1,2-Dichloroethane	ND		ug/kg	160	--	1
1,1,1-Trichloroethane	ND		ug/kg	160	--	1
Bromodichloromethane	ND		ug/kg	160	--	1
trans-1,3-Dichloropropene	ND		ug/kg	160	--	1
cis-1,3-Dichloropropene	ND		ug/kg	160	--	1
1,1-Dichloropropene	ND		ug/kg	800	--	1
Bromoform	ND		ug/kg	640	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	160	--	1
Benzene	ND		ug/kg	160	--	1
Toluene	ND		ug/kg	240	--	1
Ethylbenzene	ND		ug/kg	160	--	1
Chloromethane	ND		ug/kg	800	--	1
Bromomethane	ND		ug/kg	320	--	1
Vinyl chloride	ND		ug/kg	320	--	1
Chloroethane	ND		ug/kg	320	--	1
1,1-Dichloroethene	ND		ug/kg	160	--	1
trans-1,2-Dichloroethene	ND		ug/kg	240	--	1
Trichloroethene	ND		ug/kg	160	--	1
1,2-Dichlorobenzene	ND		ug/kg	800	--	1
1,3-Dichlorobenzene	ND		ug/kg	800	--	1
1,4-Dichlorobenzene	ND		ug/kg	800	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-02 Date Collected: 11/12/13 12:04

Client ID: RC-WC-111213-02 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	320	--	1
p/m-Xylene	ND		ug/kg	320	--	1
o-Xylene	ND		ug/kg	320	--	1
Xylenes, Total	ND		ug/kg	320	--	1
cis-1,2-Dichloroethene	ND		ug/kg	160	--	1
Dibromomethane	ND		ug/kg	1600	--	1
1,4-Dichlorobutane	ND		ug/kg	1600	--	1
1,2,3-Trichloropropane	ND		ug/kg	1600	--	1
Styrene	ND		ug/kg	320	--	1
Dichlorodifluoromethane	ND		ug/kg	1600	--	1
Acetone	ND		ug/kg	5800	--	1
Carbon disulfide	ND		ug/kg	1600	--	1
2-Butanone	ND		ug/kg	1600	--	1
Vinyl acetate	ND		ug/kg	1600	--	1
4-Methyl-2-pentanone	ND		ug/kg	1600	--	1
2-Hexanone	ND		ug/kg	1600	--	1
Ethyl methacrylate	ND		ug/kg	1600	--	1
Acrylonitrile	ND		ug/kg	640	--	1
Bromochloromethane	ND		ug/kg	800	--	1
Tetrahydrofuran	ND		ug/kg	3200	--	1
2,2-Dichloropropane	ND		ug/kg	800	--	1
1,2-Dibromoethane	ND		ug/kg	640	--	1
1,3-Dichloropropane	ND		ug/kg	800	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	160	--	1
Bromobenzene	ND		ug/kg	800	--	1
n-Butylbenzene	ND		ug/kg	160	--	1
sec-Butylbenzene	ND		ug/kg	160	--	1
tert-Butylbenzene	ND		ug/kg	800	--	1
o-Chlorotoluene	ND		ug/kg	800	--	1
p-Chlorotoluene	ND		ug/kg	800	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	800	--	1
Hexachlorobutadiene	ND		ug/kg	800	--	1
Isopropylbenzene	ND		ug/kg	160	--	1
p-Isopropyltoluene	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	800	--	1
n-Propylbenzene	ND		ug/kg	160	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	800	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	800	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	800	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-02 Date Collected: 11/12/13 12:04

Client ID: RC-WC-111213-02 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	800	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	800	--	1
Ethyl ether	ND		ug/kg	800	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	94		70-130

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-03	Date Collected:	11/12/13 12:06
Client ID:	RC-WC-111213-03	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	11/14/13 11:25		
Analyst:	BN		
Percent Solids:	49%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	1800	--	1
1,1-Dichloroethane	ND		ug/kg	270	--	1
Chloroform	ND		ug/kg	270	--	1
Carbon tetrachloride	ND		ug/kg	180	--	1
1,2-Dichloropropane	ND		ug/kg	630	--	1
Dibromochloromethane	ND		ug/kg	180	--	1
1,1,2-Trichloroethane	ND		ug/kg	270	--	1
Tetrachloroethene	ND		ug/kg	180	--	1
Chlorobenzene	ND		ug/kg	180	--	1
Trichlorofluoromethane	ND		ug/kg	900	--	1
1,2-Dichloroethane	ND		ug/kg	180	--	1
1,1,1-Trichloroethane	ND		ug/kg	180	--	1
Bromodichloromethane	ND		ug/kg	180	--	1
trans-1,3-Dichloropropene	ND		ug/kg	180	--	1
cis-1,3-Dichloropropene	ND		ug/kg	180	--	1
1,1-Dichloropropene	ND		ug/kg	900	--	1
Bromoform	ND		ug/kg	720	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	180	--	1
Benzene	ND		ug/kg	180	--	1
Toluene	ND		ug/kg	270	--	1
Ethylbenzene	ND		ug/kg	180	--	1
Chloromethane	ND		ug/kg	900	--	1
Bromomethane	ND		ug/kg	360	--	1
Vinyl chloride	ND		ug/kg	360	--	1
Chloroethane	ND		ug/kg	360	--	1
1,1-Dichloroethene	ND		ug/kg	180	--	1
trans-1,2-Dichloroethene	ND		ug/kg	270	--	1
Trichloroethene	ND		ug/kg	180	--	1
1,2-Dichlorobenzene	ND		ug/kg	900	--	1
1,3-Dichlorobenzene	ND		ug/kg	900	--	1
1,4-Dichlorobenzene	ND		ug/kg	900	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-03 Date Collected: 11/12/13 12:06

Client ID: RC-WC-111213-03 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	360	--	1
p/m-Xylene	ND		ug/kg	360	--	1
o-Xylene	ND		ug/kg	360	--	1
Xylenes, Total	ND		ug/kg	360	--	1
cis-1,2-Dichloroethene	ND		ug/kg	180	--	1
Dibromomethane	ND		ug/kg	1800	--	1
1,4-Dichlorobutane	ND		ug/kg	1800	--	1
1,2,3-Trichloropropane	ND		ug/kg	1800	--	1
Styrene	ND		ug/kg	360	--	1
Dichlorodifluoromethane	ND		ug/kg	1800	--	1
Acetone	ND		ug/kg	6500	--	1
Carbon disulfide	ND		ug/kg	1800	--	1
2-Butanone	ND		ug/kg	1800	--	1
Vinyl acetate	ND		ug/kg	1800	--	1
4-Methyl-2-pentanone	ND		ug/kg	1800	--	1
2-Hexanone	ND		ug/kg	1800	--	1
Ethyl methacrylate	ND		ug/kg	1800	--	1
Acrylonitrile	ND		ug/kg	720	--	1
Bromochloromethane	ND		ug/kg	900	--	1
Tetrahydrofuran	ND		ug/kg	3600	--	1
2,2-Dichloropropane	ND		ug/kg	900	--	1
1,2-Dibromoethane	ND		ug/kg	720	--	1
1,3-Dichloropropane	ND		ug/kg	900	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	180	--	1
Bromobenzene	ND		ug/kg	900	--	1
n-Butylbenzene	ND		ug/kg	180	--	1
sec-Butylbenzene	ND		ug/kg	180	--	1
tert-Butylbenzene	ND		ug/kg	900	--	1
o-Chlorotoluene	ND		ug/kg	900	--	1
p-Chlorotoluene	ND		ug/kg	900	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	900	--	1
Hexachlorobutadiene	ND		ug/kg	900	--	1
Isopropylbenzene	ND		ug/kg	180	--	1
p-Isopropyltoluene	ND		ug/kg	180	--	1
Naphthalene	ND		ug/kg	900	--	1
n-Propylbenzene	ND		ug/kg	180	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	900	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	900	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	900	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-03 Date Collected: 11/12/13 12:06

Client ID: RC-WC-111213-03 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	900	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	900	--	1
Ethyl ether	ND		ug/kg	900	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	93		70-130

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-04	Date Collected:	11/12/13 12:08
Client ID:	RC-WC-111213-04	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	11/14/13 11:52		
Analyst:	BN		
Percent Solids:	48%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	1600	--	1
1,1-Dichloroethane	ND		ug/kg	240	--	1
Chloroform	ND		ug/kg	240	--	1
Carbon tetrachloride	ND		ug/kg	160	--	1
1,2-Dichloropropane	ND		ug/kg	570	--	1
Dibromochloromethane	ND		ug/kg	160	--	1
1,1,2-Trichloroethane	ND		ug/kg	240	--	1
Tetrachloroethene	ND		ug/kg	160	--	1
Chlorobenzene	ND		ug/kg	160	--	1
Trichlorofluoromethane	ND		ug/kg	810	--	1
1,2-Dichloroethane	ND		ug/kg	160	--	1
1,1,1-Trichloroethane	ND		ug/kg	160	--	1
Bromodichloromethane	ND		ug/kg	160	--	1
trans-1,3-Dichloropropene	ND		ug/kg	160	--	1
cis-1,3-Dichloropropene	ND		ug/kg	160	--	1
1,1-Dichloropropene	ND		ug/kg	810	--	1
Bromoform	ND		ug/kg	650	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	160	--	1
Benzene	ND		ug/kg	160	--	1
Toluene	ND		ug/kg	240	--	1
Ethylbenzene	ND		ug/kg	160	--	1
Chloromethane	ND		ug/kg	810	--	1
Bromomethane	ND		ug/kg	320	--	1
Vinyl chloride	ND		ug/kg	320	--	1
Chloroethane	ND		ug/kg	320	--	1
1,1-Dichloroethene	ND		ug/kg	160	--	1
trans-1,2-Dichloroethene	ND		ug/kg	240	--	1
Trichloroethene	ND		ug/kg	160	--	1
1,2-Dichlorobenzene	ND		ug/kg	810	--	1
1,3-Dichlorobenzene	ND		ug/kg	810	--	1
1,4-Dichlorobenzene	ND		ug/kg	810	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-04 Date Collected: 11/12/13 12:08

Client ID: RC-WC-111213-04 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	320	--	1
p/m-Xylene	ND		ug/kg	320	--	1
o-Xylene	ND		ug/kg	320	--	1
Xylenes, Total	ND		ug/kg	320	--	1
cis-1,2-Dichloroethene	ND		ug/kg	160	--	1
Dibromomethane	ND		ug/kg	1600	--	1
1,4-Dichlorobutane	ND		ug/kg	1600	--	1
1,2,3-Trichloropropane	ND		ug/kg	1600	--	1
Styrene	ND		ug/kg	320	--	1
Dichlorodifluoromethane	ND		ug/kg	1600	--	1
Acetone	ND		ug/kg	5900	--	1
Carbon disulfide	ND		ug/kg	1600	--	1
2-Butanone	ND		ug/kg	1600	--	1
Vinyl acetate	ND		ug/kg	1600	--	1
4-Methyl-2-pentanone	ND		ug/kg	1600	--	1
2-Hexanone	ND		ug/kg	1600	--	1
Ethyl methacrylate	ND		ug/kg	1600	--	1
Acrylonitrile	ND		ug/kg	650	--	1
Bromochloromethane	ND		ug/kg	810	--	1
Tetrahydrofuran	ND		ug/kg	3200	--	1
2,2-Dichloropropane	ND		ug/kg	810	--	1
1,2-Dibromoethane	ND		ug/kg	650	--	1
1,3-Dichloropropane	ND		ug/kg	810	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	160	--	1
Bromobenzene	ND		ug/kg	810	--	1
n-Butylbenzene	ND		ug/kg	160	--	1
sec-Butylbenzene	ND		ug/kg	160	--	1
tert-Butylbenzene	ND		ug/kg	810	--	1
o-Chlorotoluene	ND		ug/kg	810	--	1
p-Chlorotoluene	ND		ug/kg	810	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	810	--	1
Hexachlorobutadiene	ND		ug/kg	810	--	1
Isopropylbenzene	ND		ug/kg	160	--	1
p-Isopropyltoluene	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	810	--	1
n-Propylbenzene	ND		ug/kg	160	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	810	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	810	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	810	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-04 Date Collected: 11/12/13 12:08

Client ID: RC-WC-111213-04 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	810	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	810	--	1
Ethyl ether	ND		ug/kg	810	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	92		70-130

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-05	Date Collected:	11/12/13 12:10
Client ID:	RC-WC-111213-05	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	11/14/13 12:19		
Analyst:	BN		
Percent Solids:	53%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	1600	--	1
1,1-Dichloroethane	ND		ug/kg	250	--	1
Chloroform	ND		ug/kg	250	--	1
Carbon tetrachloride	ND		ug/kg	160	--	1
1,2-Dichloropropane	ND		ug/kg	580	--	1
Dibromochloromethane	ND		ug/kg	160	--	1
1,1,2-Trichloroethane	ND		ug/kg	250	--	1
Tetrachloroethene	ND		ug/kg	160	--	1
Chlorobenzene	ND		ug/kg	160	--	1
Trichlorofluoromethane	ND		ug/kg	820	--	1
1,2-Dichloroethane	ND		ug/kg	160	--	1
1,1,1-Trichloroethane	ND		ug/kg	160	--	1
Bromodichloromethane	ND		ug/kg	160	--	1
trans-1,3-Dichloropropene	ND		ug/kg	160	--	1
cis-1,3-Dichloropropene	ND		ug/kg	160	--	1
1,1-Dichloropropene	ND		ug/kg	820	--	1
Bromoform	ND		ug/kg	660	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	160	--	1
Benzene	ND		ug/kg	160	--	1
Toluene	ND		ug/kg	250	--	1
Ethylbenzene	ND		ug/kg	160	--	1
Chloromethane	ND		ug/kg	820	--	1
Bromomethane	ND		ug/kg	330	--	1
Vinyl chloride	ND		ug/kg	330	--	1
Chloroethane	ND		ug/kg	330	--	1
1,1-Dichloroethene	ND		ug/kg	160	--	1
trans-1,2-Dichloroethene	ND		ug/kg	250	--	1
Trichloroethene	ND		ug/kg	160	--	1
1,2-Dichlorobenzene	ND		ug/kg	820	--	1
1,3-Dichlorobenzene	ND		ug/kg	820	--	1
1,4-Dichlorobenzene	ND		ug/kg	820	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-05 Date Collected: 11/12/13 12:10

Client ID: RC-WC-111213-05 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	330	--	1
p/m-Xylene	ND		ug/kg	330	--	1
o-Xylene	ND		ug/kg	330	--	1
Xylenes, Total	ND		ug/kg	330	--	1
cis-1,2-Dichloroethene	ND		ug/kg	160	--	1
Dibromomethane	ND		ug/kg	1600	--	1
1,4-Dichlorobutane	ND		ug/kg	1600	--	1
1,2,3-Trichloropropane	ND		ug/kg	1600	--	1
Styrene	ND		ug/kg	330	--	1
Dichlorodifluoromethane	ND		ug/kg	1600	--	1
Acetone	ND		ug/kg	5900	--	1
Carbon disulfide	ND		ug/kg	1600	--	1
2-Butanone	ND		ug/kg	1600	--	1
Vinyl acetate	ND		ug/kg	1600	--	1
4-Methyl-2-pentanone	ND		ug/kg	1600	--	1
2-Hexanone	ND		ug/kg	1600	--	1
Ethyl methacrylate	ND		ug/kg	1600	--	1
Acrylonitrile	ND		ug/kg	660	--	1
Bromochloromethane	ND		ug/kg	820	--	1
Tetrahydrofuran	ND		ug/kg	3300	--	1
2,2-Dichloropropane	ND		ug/kg	820	--	1
1,2-Dibromoethane	ND		ug/kg	660	--	1
1,3-Dichloropropane	ND		ug/kg	820	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	160	--	1
Bromobenzene	ND		ug/kg	820	--	1
n-Butylbenzene	ND		ug/kg	160	--	1
sec-Butylbenzene	ND		ug/kg	160	--	1
tert-Butylbenzene	ND		ug/kg	820	--	1
o-Chlorotoluene	ND		ug/kg	820	--	1
p-Chlorotoluene	ND		ug/kg	820	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	820	--	1
Hexachlorobutadiene	ND		ug/kg	820	--	1
Isopropylbenzene	ND		ug/kg	160	--	1
p-Isopropyltoluene	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	820	--	1
n-Propylbenzene	ND		ug/kg	160	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	820	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	820	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	820	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-05 Date Collected: 11/12/13 12:10

Client ID: RC-WC-111213-05 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	820	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	820	--	1
Ethyl ether	ND		ug/kg	820	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	95		70-130

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-06	Date Collected:	11/12/13 12:12
Client ID:	RC-WC-111213-06	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	11/14/13 12:47		
Analyst:	BN		
Percent Solids:	52%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	1200	--	1
1,1-Dichloroethane	ND		ug/kg	180	--	1
Chloroform	ND		ug/kg	180	--	1
Carbon tetrachloride	ND		ug/kg	120	--	1
1,2-Dichloropropane	ND		ug/kg	430	--	1
Dibromochloromethane	ND		ug/kg	120	--	1
1,1,2-Trichloroethane	ND		ug/kg	180	--	1
Tetrachloroethene	ND		ug/kg	120	--	1
Chlorobenzene	ND		ug/kg	120	--	1
Trichlorofluoromethane	ND		ug/kg	610	--	1
1,2-Dichloroethane	ND		ug/kg	120	--	1
1,1,1-Trichloroethane	ND		ug/kg	120	--	1
Bromodichloromethane	ND		ug/kg	120	--	1
trans-1,3-Dichloropropene	ND		ug/kg	120	--	1
cis-1,3-Dichloropropene	ND		ug/kg	120	--	1
1,1-Dichloropropene	ND		ug/kg	610	--	1
Bromoform	ND		ug/kg	490	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	120	--	1
Benzene	ND		ug/kg	120	--	1
Toluene	ND		ug/kg	180	--	1
Ethylbenzene	ND		ug/kg	120	--	1
Chloromethane	ND		ug/kg	610	--	1
Bromomethane	ND		ug/kg	240	--	1
Vinyl chloride	ND		ug/kg	240	--	1
Chloroethane	ND		ug/kg	240	--	1
1,1-Dichloroethene	ND		ug/kg	120	--	1
trans-1,2-Dichloroethene	ND		ug/kg	180	--	1
Trichloroethene	ND		ug/kg	120	--	1
1,2-Dichlorobenzene	ND		ug/kg	610	--	1
1,3-Dichlorobenzene	ND		ug/kg	610	--	1
1,4-Dichlorobenzene	ND		ug/kg	610	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-06 Date Collected: 11/12/13 12:12

Client ID: RC-WC-111213-06 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	240	--	1
p/m-Xylene	ND		ug/kg	240	--	1
o-Xylene	ND		ug/kg	240	--	1
Xylenes, Total	ND		ug/kg	240	--	1
cis-1,2-Dichloroethene	ND		ug/kg	120	--	1
Dibromomethane	ND		ug/kg	1200	--	1
1,4-Dichlorobutane	ND		ug/kg	1200	--	1
1,2,3-Trichloropropane	ND		ug/kg	1200	--	1
Styrene	ND		ug/kg	240	--	1
Dichlorodifluoromethane	ND		ug/kg	1200	--	1
Acetone	ND		ug/kg	4400	--	1
Carbon disulfide	ND		ug/kg	1200	--	1
2-Butanone	ND		ug/kg	1200	--	1
Vinyl acetate	ND		ug/kg	1200	--	1
4-Methyl-2-pentanone	ND		ug/kg	1200	--	1
2-Hexanone	ND		ug/kg	1200	--	1
Ethyl methacrylate	ND		ug/kg	1200	--	1
Acrylonitrile	ND		ug/kg	490	--	1
Bromochloromethane	ND		ug/kg	610	--	1
Tetrahydrofuran	ND		ug/kg	2400	--	1
2,2-Dichloropropane	ND		ug/kg	610	--	1
1,2-Dibromoethane	ND		ug/kg	490	--	1
1,3-Dichloropropane	ND		ug/kg	610	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	120	--	1
Bromobenzene	ND		ug/kg	610	--	1
n-Butylbenzene	ND		ug/kg	120	--	1
sec-Butylbenzene	ND		ug/kg	120	--	1
tert-Butylbenzene	ND		ug/kg	610	--	1
o-Chlorotoluene	ND		ug/kg	610	--	1
p-Chlorotoluene	ND		ug/kg	610	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	610	--	1
Hexachlorobutadiene	ND		ug/kg	610	--	1
Isopropylbenzene	ND		ug/kg	120	--	1
p-Isopropyltoluene	ND		ug/kg	120	--	1
Naphthalene	ND		ug/kg	610	--	1
n-Propylbenzene	ND		ug/kg	120	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	610	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	610	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	610	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-06 Date Collected: 11/12/13 12:12

Client ID: RC-WC-111213-06 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	610	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	610	--	1
Ethyl ether	ND		ug/kg	610	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	93		70-130

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-07	Date Collected:	11/12/13 12:14
Client ID:	RC-WC-111213-07	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	11/14/13 13:14		
Analyst:	BN		
Percent Solids:	53%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	1200	--	1
1,1-Dichloroethane	ND		ug/kg	170	--	1
Chloroform	ND		ug/kg	170	--	1
Carbon tetrachloride	ND		ug/kg	120	--	1
1,2-Dichloropropane	ND		ug/kg	410	--	1
Dibromochloromethane	ND		ug/kg	120	--	1
1,1,2-Trichloroethane	ND		ug/kg	170	--	1
Tetrachloroethene	ND		ug/kg	120	--	1
Chlorobenzene	ND		ug/kg	120	--	1
Trichlorofluoromethane	ND		ug/kg	580	--	1
1,2-Dichloroethane	ND		ug/kg	120	--	1
1,1,1-Trichloroethane	ND		ug/kg	120	--	1
Bromodichloromethane	ND		ug/kg	120	--	1
trans-1,3-Dichloropropene	ND		ug/kg	120	--	1
cis-1,3-Dichloropropene	ND		ug/kg	120	--	1
1,1-Dichloropropene	ND		ug/kg	580	--	1
Bromoform	ND		ug/kg	470	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	120	--	1
Benzene	ND		ug/kg	120	--	1
Toluene	ND		ug/kg	170	--	1
Ethylbenzene	ND		ug/kg	120	--	1
Chloromethane	ND		ug/kg	580	--	1
Bromomethane	ND		ug/kg	230	--	1
Vinyl chloride	ND		ug/kg	230	--	1
Chloroethane	ND		ug/kg	230	--	1
1,1-Dichloroethene	ND		ug/kg	120	--	1
trans-1,2-Dichloroethene	ND		ug/kg	170	--	1
Trichloroethene	ND		ug/kg	120	--	1
1,2-Dichlorobenzene	ND		ug/kg	580	--	1
1,3-Dichlorobenzene	ND		ug/kg	580	--	1
1,4-Dichlorobenzene	ND		ug/kg	580	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-07 Date Collected: 11/12/13 12:14

Client ID: RC-WC-111213-07 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	230	--	1
p/m-Xylene	ND		ug/kg	230	--	1
o-Xylene	ND		ug/kg	230	--	1
Xylenes, Total	ND		ug/kg	230	--	1
cis-1,2-Dichloroethene	ND		ug/kg	120	--	1
Dibromomethane	ND		ug/kg	1200	--	1
1,4-Dichlorobutane	ND		ug/kg	1200	--	1
1,2,3-Trichloropropane	ND		ug/kg	1200	--	1
Styrene	ND		ug/kg	230	--	1
Dichlorodifluoromethane	ND		ug/kg	1200	--	1
Acetone	5600		ug/kg	4200	--	1
Carbon disulfide	ND		ug/kg	1200	--	1
2-Butanone	ND		ug/kg	1200	--	1
Vinyl acetate	ND		ug/kg	1200	--	1
4-Methyl-2-pentanone	ND		ug/kg	1200	--	1
2-Hexanone	ND		ug/kg	1200	--	1
Ethyl methacrylate	ND		ug/kg	1200	--	1
Acrylonitrile	ND		ug/kg	470	--	1
Bromochloromethane	ND		ug/kg	580	--	1
Tetrahydrofuran	ND		ug/kg	2300	--	1
2,2-Dichloropropane	ND		ug/kg	580	--	1
1,2-Dibromoethane	ND		ug/kg	470	--	1
1,3-Dichloropropane	ND		ug/kg	580	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	120	--	1
Bromobenzene	ND		ug/kg	580	--	1
n-Butylbenzene	ND		ug/kg	120	--	1
sec-Butylbenzene	ND		ug/kg	120	--	1
tert-Butylbenzene	ND		ug/kg	580	--	1
o-Chlorotoluene	ND		ug/kg	580	--	1
p-Chlorotoluene	ND		ug/kg	580	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	580	--	1
Hexachlorobutadiene	ND		ug/kg	580	--	1
Isopropylbenzene	ND		ug/kg	120	--	1
p-Isopropyltoluene	ND		ug/kg	120	--	1
Naphthalene	ND		ug/kg	580	--	1
n-Propylbenzene	ND		ug/kg	120	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	580	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	580	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	580	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-07 Date Collected: 11/12/13 12:14

Client ID: RC-WC-111213-07 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	580	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	580	--	1
Ethyl ether	ND		ug/kg	580	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	94		70-130

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-08	Date Collected:	11/12/13 12:16
Client ID:	RC-WC-111213-08	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	11/14/13 13:41		
Analyst:	BN		
Percent Solids:	49%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	1400	--	1
1,1-Dichloroethane	ND		ug/kg	200	--	1
Chloroform	ND		ug/kg	200	--	1
Carbon tetrachloride	ND		ug/kg	140	--	1
1,2-Dichloropropane	ND		ug/kg	480	--	1
Dibromochloromethane	ND		ug/kg	140	--	1
1,1,2-Trichloroethane	ND		ug/kg	200	--	1
Tetrachloroethene	ND		ug/kg	140	--	1
Chlorobenzene	ND		ug/kg	140	--	1
Trichlorofluoromethane	ND		ug/kg	680	--	1
1,2-Dichloroethane	ND		ug/kg	140	--	1
1,1,1-Trichloroethane	ND		ug/kg	140	--	1
Bromodichloromethane	ND		ug/kg	140	--	1
trans-1,3-Dichloropropene	ND		ug/kg	140	--	1
cis-1,3-Dichloropropene	ND		ug/kg	140	--	1
1,1-Dichloropropene	ND		ug/kg	680	--	1
Bromoform	ND		ug/kg	540	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	140	--	1
Benzene	ND		ug/kg	140	--	1
Toluene	ND		ug/kg	200	--	1
Ethylbenzene	ND		ug/kg	140	--	1
Chloromethane	ND		ug/kg	680	--	1
Bromomethane	ND		ug/kg	270	--	1
Vinyl chloride	ND		ug/kg	270	--	1
Chloroethane	ND		ug/kg	270	--	1
1,1-Dichloroethene	ND		ug/kg	140	--	1
trans-1,2-Dichloroethene	ND		ug/kg	200	--	1
Trichloroethene	ND		ug/kg	140	--	1
1,2-Dichlorobenzene	ND		ug/kg	680	--	1
1,3-Dichlorobenzene	ND		ug/kg	680	--	1
1,4-Dichlorobenzene	ND		ug/kg	680	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-08 Date Collected: 11/12/13 12:16

Client ID: RC-WC-111213-08 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	270	--	1
p/m-Xylene	ND		ug/kg	270	--	1
o-Xylene	ND		ug/kg	270	--	1
Xylenes, Total	ND		ug/kg	270	--	1
cis-1,2-Dichloroethene	ND		ug/kg	140	--	1
Dibromomethane	ND		ug/kg	1400	--	1
1,4-Dichlorobutane	ND		ug/kg	1400	--	1
1,2,3-Trichloropropane	ND		ug/kg	1400	--	1
Styrene	ND		ug/kg	270	--	1
Dichlorodifluoromethane	ND		ug/kg	1400	--	1
Acetone	ND		ug/kg	4900	--	1
Carbon disulfide	ND		ug/kg	1400	--	1
2-Butanone	ND		ug/kg	1400	--	1
Vinyl acetate	ND		ug/kg	1400	--	1
4-Methyl-2-pentanone	ND		ug/kg	1400	--	1
2-Hexanone	ND		ug/kg	1400	--	1
Ethyl methacrylate	ND		ug/kg	1400	--	1
Acrylonitrile	ND		ug/kg	540	--	1
Bromochloromethane	ND		ug/kg	680	--	1
Tetrahydrofuran	ND		ug/kg	2700	--	1
2,2-Dichloropropane	ND		ug/kg	680	--	1
1,2-Dibromoethane	ND		ug/kg	540	--	1
1,3-Dichloropropane	ND		ug/kg	680	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	140	--	1
Bromobenzene	ND		ug/kg	680	--	1
n-Butylbenzene	ND		ug/kg	140	--	1
sec-Butylbenzene	ND		ug/kg	140	--	1
tert-Butylbenzene	ND		ug/kg	680	--	1
o-Chlorotoluene	ND		ug/kg	680	--	1
p-Chlorotoluene	ND		ug/kg	680	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	680	--	1
Hexachlorobutadiene	ND		ug/kg	680	--	1
Isopropylbenzene	ND		ug/kg	140	--	1
p-Isopropyltoluene	ND		ug/kg	140	--	1
Naphthalene	ND		ug/kg	680	--	1
n-Propylbenzene	ND		ug/kg	140	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	680	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	680	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	680	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-08 Date Collected: 11/12/13 12:16

Client ID: RC-WC-111213-08 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	680	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	680	--	1
Ethyl ether	ND		ug/kg	680	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	95		70-130

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/14/13 10:03
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01-08 Batch: WG651760-3					
Methylene chloride	ND		ug/kg	500	--
1,1-Dichloroethane	ND		ug/kg	75	--
Chloroform	ND		ug/kg	75	--
Carbon tetrachloride	ND		ug/kg	50	--
1,2-Dichloropropane	ND		ug/kg	180	--
Dibromochloromethane	ND		ug/kg	50	--
1,1,2-Trichloroethane	ND		ug/kg	75	--
Tetrachloroethene	ND		ug/kg	50	--
Chlorobenzene	ND		ug/kg	50	--
Trichlorofluoromethane	ND		ug/kg	250	--
1,2-Dichloroethane	ND		ug/kg	50	--
1,1,1-Trichloroethane	ND		ug/kg	50	--
Bromodichloromethane	ND		ug/kg	50	--
trans-1,3-Dichloropropene	ND		ug/kg	50	--
cis-1,3-Dichloropropene	ND		ug/kg	50	--
1,1-Dichloropropene	ND		ug/kg	250	--
Bromoform	ND		ug/kg	200	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	--
Benzene	ND		ug/kg	50	--
Toluene	ND		ug/kg	75	--
Ethylbenzene	ND		ug/kg	50	--
Chloromethane	ND		ug/kg	250	--
Bromomethane	ND		ug/kg	100	--
Vinyl chloride	ND		ug/kg	100	--
Chloroethane	ND		ug/kg	100	--
1,1-Dichloroethene	ND		ug/kg	50	--
trans-1,2-Dichloroethene	ND		ug/kg	75	--
Trichloroethene	ND		ug/kg	50	--
1,2-Dichlorobenzene	ND		ug/kg	250	--
1,3-Dichlorobenzene	ND		ug/kg	250	--
1,4-Dichlorobenzene	ND		ug/kg	250	--

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/14/13 10:03
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01-08 Batch: WG651760-3					
Methyl tert butyl ether	ND		ug/kg	100	--
p/m-Xylene	ND		ug/kg	100	--
o-Xylene	ND		ug/kg	100	--
Xylenes, Total	ND		ug/kg	100	--
cis-1,2-Dichloroethene	ND		ug/kg	50	--
Dibromomethane	ND		ug/kg	500	--
1,4-Dichlorobutane	ND		ug/kg	500	--
1,2,3-Trichloropropane	ND		ug/kg	500	--
Styrene	ND		ug/kg	100	--
Dichlorodifluoromethane	ND		ug/kg	500	--
Acetone	ND		ug/kg	1800	--
Carbon disulfide	ND		ug/kg	500	--
2-Butanone	ND		ug/kg	500	--
Vinyl acetate	ND		ug/kg	500	--
4-Methyl-2-pentanone	ND		ug/kg	500	--
2-Hexanone	ND		ug/kg	500	--
Ethyl methacrylate	ND		ug/kg	500	--
Acrolein	ND		ug/kg	1200	--
Acrylonitrile	ND		ug/kg	200	--
Bromochloromethane	ND		ug/kg	250	--
Tetrahydrofuran	ND		ug/kg	1000	--
2,2-Dichloropropane	ND		ug/kg	250	--
1,2-Dibromoethane	ND		ug/kg	200	--
1,3-Dichloropropane	ND		ug/kg	250	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	--
Bromobenzene	ND		ug/kg	250	--
n-Butylbenzene	ND		ug/kg	50	--
sec-Butylbenzene	ND		ug/kg	50	--
tert-Butylbenzene	ND		ug/kg	250	--
1,3,5-Trichlorobenzene	ND		ug/kg	200	--
o-Chlorotoluene	ND		ug/kg	250	--

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/14/13 10:03
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01-08 Batch: WG651760-3					
p-Chlorotoluene	ND		ug/kg	250	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	250	--
Hexachlorobutadiene	ND		ug/kg	250	--
Isopropylbenzene	ND		ug/kg	50	--
p-Isopropyltoluene	ND		ug/kg	50	--
Naphthalene	ND		ug/kg	250	--
n-Propylbenzene	ND		ug/kg	50	--
1,2,3-Trichlorobenzene	ND		ug/kg	250	--
1,2,4-Trichlorobenzene	ND		ug/kg	250	--
1,3,5-Trimethylbenzene	ND		ug/kg	250	--
1,2,4-Trimethylbenzene	ND		ug/kg	250	--
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	--
Ethyl ether	ND		ug/kg	250	--
Methyl Acetate	ND		ug/kg	1000	--
Ethyl Acetate	ND		ug/kg	1000	--
Isopropyl Ether	ND		ug/kg	200	--
Cyclohexane	ND		ug/kg	1000	--
Tert-Butyl Alcohol	ND		ug/kg	5000	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	200	--
1,4-Dioxane	ND		ug/kg	5000	--
Methyl cyclohexane	ND		ug/kg	200	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/kg	1000	--
p-Diethylbenzene	ND		ug/kg	200	--
4-Ethyltoluene	ND		ug/kg	200	--
1,2,4,5-Tetramethylbenzene	ND		ug/kg	200	--

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/14/13 10:03
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01-08 Batch: WG651760-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	95		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323043

Report Date: 11/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01-08 Batch: WG651760-1 WG651760-2								
Methylene chloride	98		100		70-130	2		30
1,1-Dichloroethane	104		106		70-130	2		30
Chloroform	105		109		70-130	4		30
Carbon tetrachloride	108		111		70-130	3		30
1,2-Dichloropropane	101		105		70-130	4		30
Dibromochloromethane	98		103		70-130	5		30
1,1,2-Trichloroethane	96		103		70-130	7		30
Tetrachloroethene	104		105		70-130	1		30
Chlorobenzene	97		100		70-130	3		30
Trichlorofluoromethane	109		110		70-139	1		30
1,2-Dichloroethane	95		100		70-130	5		30
1,1,1-Trichloroethane	107		109		70-130	2		30
Bromodichloromethane	103		108		70-130	5		30
trans-1,3-Dichloropropene	92		98		70-130	6		30
cis-1,3-Dichloropropene	100		104		70-130	4		30
1,1-Dichloropropene	99		101		70-130	2		30
Bromoform	92		99		70-130	7		30
1,1,2,2-Tetrachloroethane	91		98		70-130	7		30
Benzene	101		103		70-130	2		30
Toluene	95		97		70-130	2		30
Ethylbenzene	99		102		70-130	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323043

Report Date: 11/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01-08 Batch: WG651760-1 WG651760-2								
Chloromethane	107		106		52-130	1		30
Bromomethane	115		112		57-147	3		30
Vinyl chloride	109		109		67-130	0		30
Chloroethane	112		108		50-151	4		30
1,1-Dichloroethene	111		112		65-135	1		30
trans-1,2-Dichloroethene	106		110		70-130	4		30
Trichloroethene	112		116		70-130	4		30
1,2-Dichlorobenzene	98		104		70-130	6		30
1,3-Dichlorobenzene	99		103		70-130	4		30
1,4-Dichlorobenzene	100		104		70-130	4		30
Methyl tert butyl ether	98		104		66-130	6		30
p/m-Xylene	100		103		70-130	3		30
o-Xylene	99		102		70-130	3		30
cis-1,2-Dichloroethene	105		108		70-130	3		30
Dibromomethane	100		106		70-130	6		30
1,4-Dichlorobutane	85		90		70-130	6		30
1,2,3-Trichloropropane	89		97		68-130	9		30
Styrene	99		103		70-130	4		30
Dichlorodifluoromethane	111		113		30-146	2		30
Acetone	100		106		54-140	6		30
Carbon disulfide	103		104		59-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323043

Report Date: 11/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01-08 Batch: WG651760-1 WG651760-2								
2-Butanone	92		99		70-130	7		30
Vinyl acetate	73		78		70-130	7		30
4-Methyl-2-pentanone	96		107		70-130	11		30
2-Hexanone	82		92		70-130	11		30
Ethyl methacrylate	87		92		70-130	6		30
Acrolein	115		116			1		30
Acrylonitrile	91		97		70-130	6		30
Bromochloromethane	106		112		70-130	6		30
Tetrahydrofuran	74		79		66-130	7		30
2,2-Dichloropropane	102		103		70-130	1		30
1,2-Dibromoethane	94		101		70-130	7		30
1,3-Dichloropropane	95		100		69-130	5		30
1,1,1,2-Tetrachloroethane	100		104		70-130	4		30
Bromobenzene	99		103		70-130	4		30
n-Butylbenzene	102		104		70-130	2		30
sec-Butylbenzene	98		102		70-130	4		30
tert-Butylbenzene	98		101		70-130	3		30
1,3,5-Trichlorobenzene	108		114		70-139	5		30
o-Chlorotoluene	96		101		70-130	5		30
p-Chlorotoluene	98		101		70-130	3		30
1,2-Dibromo-3-chloropropane	83		109		68-130	27		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01-08 Batch: WG651760-1 WG651760-2								
Hexachlorobutadiene	102		108		67-130	6		30
Isopropylbenzene	98		101		70-130	3		30
p-Isopropyltoluene	102		105		70-130	3		30
Naphthalene	93		102		70-130	9		30
n-Propylbenzene	99		102		70-130	3		30
1,2,3-Trichlorobenzene	100		107		70-130	7		30
1,2,4-Trichlorobenzene	100		105		70-130	5		30
1,3,5-Trimethylbenzene	95		98		70-130	3		30
1,2,4-Trimethylbenzene	101		105		70-130	4		30
trans-1,4-Dichloro-2-butene	**69**	Q	76		70-130	10		30
Ethyl ether	101		105		67-130	4		30
Methyl Acetate	109		118		65-130	8		30
Ethyl Acetate	81		89		70-130	9		30
Cyclohexane	94		95		70-130	1		30
Tert-Butyl Alcohol	90		102		70-130	13		30
Ethyl-Tert-Butyl-Ether	97		101		70-130	4		30
Tertiary-Amyl Methyl Ether	103		110		70-130	7		30
1,4-Dioxane	106		118		65-136	11		30
Methyl cyclohexane	108		111		70-130	3		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	92		93		70-130	1		30
p-Diethylbenzene	108		112		70-130	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323043

Report Date: 11/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01-08 Batch: WG651760-1 WG651760-2								
4-Ethyltoluene	106		110		70-130	4		30
1,2,4,5-Tetramethylbenzene	107		113		70-130	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	91		92		70-130
Toluene-d8	96		95		70-130
4-Bromofluorobenzene	99		96		70-130
Dibromofluoromethane	100		99		70-130

SEMIVOLATILES

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-01	Date Collected:	11/12/13 12:02
Client ID:	RC-WC-111213-01	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	11/13/13 21:33
Analytical Date:	11/14/13 10:37		
Analyst:	RC		
Percent Solids:	52%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	260	--	1
Benzidine	ND		ug/kg	1100	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	320	--	1
Hexachlorobenzene	ND		ug/kg	190	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	320	--	1
2-Chloronaphthalene	ND		ug/kg	320	--	1
1,2-Dichlorobenzene	ND		ug/kg	320	--	1
1,3-Dichlorobenzene	ND		ug/kg	320	--	1
1,4-Dichlorobenzene	ND		ug/kg	320	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	320	--	1
2,4-Dinitrotoluene	ND		ug/kg	320	--	1
2,6-Dinitrotoluene	ND		ug/kg	320	--	1
Azobenzene	ND		ug/kg	320	--	1
Fluoranthene	ND		ug/kg	190	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	320	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	320	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	380	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	320	--	1
Hexachlorobutadiene	ND		ug/kg	320	--	1
Hexachlorocyclopentadiene	ND		ug/kg	890	--	1
Hexachloroethane	ND		ug/kg	260	--	1
Isophorone	ND		ug/kg	320	--	1
Naphthalene	ND		ug/kg	320	--	1
Nitrobenzene	ND		ug/kg	320	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	260	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	320	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	320	--	1
Butyl benzyl phthalate	ND		ug/kg	320	--	1
Di-n-butylphthalate	ND		ug/kg	320	--	1
Di-n-octylphthalate	ND		ug/kg	320	--	1
Diethyl phthalate	ND		ug/kg	320	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-01 Date Collected: 11/12/13 12:02

Client ID: RC-WC-111213-01 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	320	--	1
Benzo(a)anthracene	ND		ug/kg	190	--	1
Benzo(a)pyrene	ND		ug/kg	260	--	1
Benzo(b)fluoranthene	ND		ug/kg	190	--	1
Benzo(k)fluoranthene	ND		ug/kg	190	--	1
Chrysene	ND		ug/kg	190	--	1
Acenaphthylene	ND		ug/kg	260	--	1
Anthracene	ND		ug/kg	190	--	1
Benzo(ghi)perylene	ND		ug/kg	260	--	1
Fluorene	ND		ug/kg	320	--	1
Phenanthrene	ND		ug/kg	190	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	190	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	260	--	1
Pyrene	ND		ug/kg	190	--	1
Biphenyl	ND		ug/kg	700	--	1
Aniline	ND		ug/kg	380	--	1
4-Chloroaniline	ND		ug/kg	320	--	1
1-Methylnaphthalene	ND		ug/kg	320	--	1
2-Nitroaniline	ND		ug/kg	320	--	1
3-Nitroaniline	ND		ug/kg	320	--	1
4-Nitroaniline	ND		ug/kg	320	--	1
Dibenzofuran	ND		ug/kg	320	--	1
2-Methylnaphthalene	ND		ug/kg	380	--	1
n-Nitrosodimethylamine	ND		ug/kg	640	--	1
2,4,6-Trichlorophenol	ND		ug/kg	190	--	1
P-Chloro-M-Cresol	ND		ug/kg	320	--	1
2-Chlorophenol	ND		ug/kg	320	--	1
2,4-Dichlorophenol	ND		ug/kg	320	--	1
2,4-Dimethylphenol	ND		ug/kg	320	--	1
2-Nitrophenol	ND		ug/kg	700	--	1
4-Nitrophenol	ND		ug/kg	450	--	1
2,4-Dinitrophenol	ND		ug/kg	1500	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	830	--	1
Pentachlorophenol	ND		ug/kg	260	--	1
Phenol	ND		ug/kg	320	--	1
2-Methylphenol	ND		ug/kg	320	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	450	--	1
2,4,5-Trichlorophenol	ND		ug/kg	320	--	1
Benzoic Acid	ND		ug/kg	1000	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-01 Date Collected: 11/12/13 12:02

Client ID: RC-WC-111213-01 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	320	--	1
Carbazole	ND		ug/kg	320	--	1
Pyridine	ND		ug/kg	1300	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**6**	Q	25-120
Phenol-d6	20		10-120
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	1		0-136
4-Terphenyl-d14	94		18-120

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-01	RE	Date Collected:	11/12/13 12:02
Client ID:	RC-WC-111213-01		Date Received:	11/13/13
Sample Location:	DEVENS		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8270D		Extraction Date:	11/14/13 21:44
Analytical Date:	11/15/13 11:21			
Analyst:	RC			
Percent Solids:	52%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	250	--	1
Benzidine	ND		ug/kg	1100	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	320	--	1
Hexachlorobenzene	ND		ug/kg	190	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	320	--	1
2-Chloronaphthalene	ND		ug/kg	320	--	1
1,2-Dichlorobenzene	ND		ug/kg	320	--	1
1,3-Dichlorobenzene	ND		ug/kg	320	--	1
1,4-Dichlorobenzene	ND		ug/kg	320	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	320	--	1
2,4-Dinitrotoluene	ND		ug/kg	320	--	1
2,6-Dinitrotoluene	ND		ug/kg	320	--	1
Azobenzene	ND		ug/kg	320	--	1
Fluoranthene	ND		ug/kg	190	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	320	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	320	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	380	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	320	--	1
Hexachlorobutadiene	ND		ug/kg	320	--	1
Hexachlorocyclopentadiene	ND		ug/kg	890	--	1
Hexachloroethane	ND		ug/kg	250	--	1
Isophorone	ND		ug/kg	320	--	1
Naphthalene	ND		ug/kg	320	--	1
Nitrobenzene	ND		ug/kg	320	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	250	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	320	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	320	--	1
Butyl benzyl phthalate	ND		ug/kg	320	--	1
Di-n-butylphthalate	ND		ug/kg	320	--	1
Di-n-octylphthalate	ND		ug/kg	320	--	1
Diethyl phthalate	ND		ug/kg	320	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-01 RE Date Collected: 11/12/13 12:02

Client ID: RC-WC-111213-01 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	320	--	1
Benzo(a)anthracene	ND		ug/kg	190	--	1
Benzo(a)pyrene	ND		ug/kg	250	--	1
Benzo(b)fluoranthene	ND		ug/kg	190	--	1
Benzo(k)fluoranthene	ND		ug/kg	190	--	1
Chrysene	ND		ug/kg	190	--	1
Acenaphthylene	ND		ug/kg	250	--	1
Anthracene	ND		ug/kg	190	--	1
Benzo(ghi)perylene	ND		ug/kg	250	--	1
Fluorene	ND		ug/kg	320	--	1
Phenanthrene	ND		ug/kg	190	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	190	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	250	--	1
Pyrene	ND		ug/kg	190	--	1
Biphenyl	ND		ug/kg	700	--	1
Aniline	ND		ug/kg	380	--	1
4-Chloroaniline	ND		ug/kg	320	--	1
1-Methylnaphthalene	ND		ug/kg	320	--	1
2-Nitroaniline	ND		ug/kg	320	--	1
3-Nitroaniline	ND		ug/kg	320	--	1
4-Nitroaniline	ND		ug/kg	320	--	1
Dibenzofuran	ND		ug/kg	320	--	1
2-Methylnaphthalene	ND		ug/kg	380	--	1
n-Nitrosodimethylamine	ND		ug/kg	640	--	1
2,4,6-Trichlorophenol	ND		ug/kg	190	--	1
P-Chloro-M-Cresol	ND		ug/kg	320	--	1
2-Chlorophenol	ND		ug/kg	320	--	1
2,4-Dichlorophenol	ND		ug/kg	320	--	1
2,4-Dimethylphenol	ND		ug/kg	320	--	1
2-Nitrophenol	ND		ug/kg	700	--	1
4-Nitrophenol	ND		ug/kg	440	--	1
2,4-Dinitrophenol	ND		ug/kg	1500	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	830	--	1
Pentachlorophenol	ND		ug/kg	250	--	1
Phenol	ND		ug/kg	320	--	1
2-Methylphenol	ND		ug/kg	320	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	440	--	1
2,4,5-Trichlorophenol	ND		ug/kg	320	--	1
Benzoic Acid	ND		ug/kg	1000	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-01 RE Date Collected: 11/12/13 12:02

Client ID: RC-WC-111213-01 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	320	--	1
Carbazole	ND		ug/kg	320	--	1
Pyridine	ND		ug/kg	1300	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**4**	Q	25-120
Phenol-d6	24		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	87		30-120
2,4,6-Tribromophenol	1		0-136
4-Terphenyl-d14	92		18-120

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-02	Date Collected:	11/12/13 12:04
Client ID:	RC-WC-111213-02	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	11/13/13 21:33
Analytical Date:	11/14/13 11:03		
Analyst:	RC		
Percent Solids:	52%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	260	--	1
Benzidine	ND		ug/kg	1100	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	320	--	1
Hexachlorobenzene	ND		ug/kg	190	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	320	--	1
2-Chloronaphthalene	ND		ug/kg	320	--	1
1,2-Dichlorobenzene	ND		ug/kg	320	--	1
1,3-Dichlorobenzene	ND		ug/kg	320	--	1
1,4-Dichlorobenzene	ND		ug/kg	320	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	320	--	1
2,4-Dinitrotoluene	ND		ug/kg	320	--	1
2,6-Dinitrotoluene	ND		ug/kg	320	--	1
Azobenzene	ND		ug/kg	320	--	1
Fluoranthene	ND		ug/kg	190	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	320	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	320	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	380	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	320	--	1
Hexachlorobutadiene	ND		ug/kg	320	--	1
Hexachlorocyclopentadiene	ND		ug/kg	900	--	1
Hexachloroethane	ND		ug/kg	260	--	1
Isophorone	ND		ug/kg	320	--	1
Naphthalene	ND		ug/kg	320	--	1
Nitrobenzene	ND		ug/kg	320	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	260	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	320	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	320	--	1
Butyl benzyl phthalate	ND		ug/kg	320	--	1
Di-n-butylphthalate	ND		ug/kg	320	--	1
Di-n-octylphthalate	ND		ug/kg	320	--	1
Diethyl phthalate	ND		ug/kg	320	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-02 Date Collected: 11/12/13 12:04

Client ID: RC-WC-111213-02 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	320	--	1
Benzo(a)anthracene	ND		ug/kg	190	--	1
Benzo(a)pyrene	ND		ug/kg	260	--	1
Benzo(b)fluoranthene	ND		ug/kg	190	--	1
Benzo(k)fluoranthene	ND		ug/kg	190	--	1
Chrysene	ND		ug/kg	190	--	1
Acenaphthylene	ND		ug/kg	260	--	1
Anthracene	ND		ug/kg	190	--	1
Benzo(ghi)perylene	ND		ug/kg	260	--	1
Fluorene	ND		ug/kg	320	--	1
Phenanthrene	ND		ug/kg	190	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	190	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	260	--	1
Pyrene	ND		ug/kg	190	--	1
Biphenyl	ND		ug/kg	710	--	1
Aniline	ND		ug/kg	380	--	1
4-Chloroaniline	ND		ug/kg	320	--	1
1-Methylnaphthalene	ND		ug/kg	320	--	1
2-Nitroaniline	ND		ug/kg	320	--	1
3-Nitroaniline	ND		ug/kg	320	--	1
4-Nitroaniline	ND		ug/kg	320	--	1
Dibenzofuran	ND		ug/kg	320	--	1
2-Methylnaphthalene	ND		ug/kg	380	--	1
n-Nitrosodimethylamine	ND		ug/kg	640	--	1
2,4,6-Trichlorophenol	ND		ug/kg	190	--	1
P-Chloro-M-Cresol	ND		ug/kg	320	--	1
2-Chlorophenol	ND		ug/kg	320	--	1
2,4-Dichlorophenol	ND		ug/kg	320	--	1
2,4-Dimethylphenol	ND		ug/kg	320	--	1
2-Nitrophenol	ND		ug/kg	710	--	1
4-Nitrophenol	ND		ug/kg	450	--	1
2,4-Dinitrophenol	ND		ug/kg	1500	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	840	--	1
Pentachlorophenol	ND		ug/kg	260	--	1
Phenol	ND		ug/kg	320	--	1
2-Methylphenol	ND		ug/kg	320	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	450	--	1
2,4,5-Trichlorophenol	ND		ug/kg	320	--	1
Benzoic Acid	ND		ug/kg	1000	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-02 Date Collected: 11/12/13 12:04

Client ID: RC-WC-111213-02 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	320	--	1
Carbazole	ND		ug/kg	320	--	1
Pyridine	ND		ug/kg	1300	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**7**	Q	25-120
Phenol-d6	20		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	85		30-120
2,4,6-Tribromophenol	0		0-136
4-Terphenyl-d14	107		18-120

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-02	RE	Date Collected:	11/12/13 12:04
Client ID:	RC-WC-111213-02		Date Received:	11/13/13
Sample Location:	DEVENS		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8270D		Extraction Date:	11/14/13 21:44
Analytical Date:	11/15/13 11:49			
Analyst:	RC			
Percent Solids:	52%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	260	--	1
Benzidine	ND		ug/kg	1100	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	320	--	1
Hexachlorobenzene	ND		ug/kg	190	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	320	--	1
2-Chloronaphthalene	ND		ug/kg	320	--	1
1,2-Dichlorobenzene	ND		ug/kg	320	--	1
1,3-Dichlorobenzene	ND		ug/kg	320	--	1
1,4-Dichlorobenzene	ND		ug/kg	320	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	320	--	1
2,4-Dinitrotoluene	ND		ug/kg	320	--	1
2,6-Dinitrotoluene	ND		ug/kg	320	--	1
Azobenzene	ND		ug/kg	320	--	1
Fluoranthene	ND		ug/kg	190	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	320	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	320	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	380	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	320	--	1
Hexachlorobutadiene	ND		ug/kg	320	--	1
Hexachlorocyclopentadiene	ND		ug/kg	900	--	1
Hexachloroethane	ND		ug/kg	260	--	1
Isophorone	ND		ug/kg	320	--	1
Naphthalene	ND		ug/kg	320	--	1
Nitrobenzene	ND		ug/kg	320	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	260	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	320	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	320	--	1
Butyl benzyl phthalate	ND		ug/kg	320	--	1
Di-n-butylphthalate	ND		ug/kg	320	--	1
Di-n-octylphthalate	ND		ug/kg	320	--	1
Diethyl phthalate	ND		ug/kg	320	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-02 RE Date Collected: 11/12/13 12:04

Client ID: RC-WC-111213-02 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	320	--	1
Benzo(a)anthracene	ND		ug/kg	190	--	1
Benzo(a)pyrene	ND		ug/kg	260	--	1
Benzo(b)fluoranthene	ND		ug/kg	190	--	1
Benzo(k)fluoranthene	ND		ug/kg	190	--	1
Chrysene	ND		ug/kg	190	--	1
Acenaphthylene	ND		ug/kg	260	--	1
Anthracene	ND		ug/kg	190	--	1
Benzo(ghi)perylene	ND		ug/kg	260	--	1
Fluorene	ND		ug/kg	320	--	1
Phenanthrene	ND		ug/kg	190	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	190	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	260	--	1
Pyrene	ND		ug/kg	190	--	1
Biphenyl	ND		ug/kg	710	--	1
Aniline	ND		ug/kg	380	--	1
4-Chloroaniline	ND		ug/kg	320	--	1
1-Methylnaphthalene	ND		ug/kg	320	--	1
2-Nitroaniline	ND		ug/kg	320	--	1
3-Nitroaniline	ND		ug/kg	320	--	1
4-Nitroaniline	ND		ug/kg	320	--	1
Dibenzofuran	ND		ug/kg	320	--	1
2-Methylnaphthalene	ND		ug/kg	380	--	1
n-Nitrosodimethylamine	ND		ug/kg	640	--	1
2,4,6-Trichlorophenol	ND		ug/kg	190	--	1
P-Chloro-M-Cresol	ND		ug/kg	320	--	1
2-Chlorophenol	ND		ug/kg	320	--	1
2,4-Dichlorophenol	ND		ug/kg	320	--	1
2,4-Dimethylphenol	ND		ug/kg	320	--	1
2-Nitrophenol	ND		ug/kg	710	--	1
4-Nitrophenol	ND		ug/kg	450	--	1
2,4-Dinitrophenol	ND		ug/kg	1500	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	840	--	1
Pentachlorophenol	ND		ug/kg	260	--	1
Phenol	ND		ug/kg	320	--	1
2-Methylphenol	ND		ug/kg	320	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	450	--	1
2,4,5-Trichlorophenol	ND		ug/kg	320	--	1
Benzoic Acid	ND		ug/kg	1000	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-02 RE
Client ID: RC-WC-111213-02
Sample Location: DEVENS

Date Collected: 11/12/13 12:04
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	320	--	1
Carbazole	ND		ug/kg	320	--	1
Pyridine	ND		ug/kg	1300	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**5**	Q	25-120
Phenol-d6	28		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	2		0-136
4-Terphenyl-d14	93		18-120

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-03	Date Collected:	11/12/13 12:06
Client ID:	RC-WC-111213-03	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	11/13/13 21:33
Analytical Date:	11/14/13 11:29		
Analyst:	RC		
Percent Solids:	49%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	270	--	1
Benzidine	ND		ug/kg	1100	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	340	--	1
Hexachlorobenzene	ND		ug/kg	200	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	340	--	1
2-Chloronaphthalene	ND		ug/kg	340	--	1
1,2-Dichlorobenzene	ND		ug/kg	340	--	1
1,3-Dichlorobenzene	ND		ug/kg	340	--	1
1,4-Dichlorobenzene	ND		ug/kg	340	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	340	--	1
2,4-Dinitrotoluene	ND		ug/kg	340	--	1
2,6-Dinitrotoluene	ND		ug/kg	340	--	1
Azobenzene	ND		ug/kg	340	--	1
Fluoranthene	ND		ug/kg	200	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	340	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	340	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	400	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	340	--	1
Hexachlorobutadiene	ND		ug/kg	340	--	1
Hexachlorocyclopentadiene	ND		ug/kg	940	--	1
Hexachloroethane	ND		ug/kg	270	--	1
Isophorone	ND		ug/kg	340	--	1
Naphthalene	ND		ug/kg	340	--	1
Nitrobenzene	ND		ug/kg	340	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	270	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	340	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	340	--	1
Butyl benzyl phthalate	ND		ug/kg	340	--	1
Di-n-butylphthalate	ND		ug/kg	340	--	1
Di-n-octylphthalate	ND		ug/kg	340	--	1
Diethyl phthalate	ND		ug/kg	340	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-03 Date Collected: 11/12/13 12:06

Client ID: RC-WC-111213-03 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	340	--	1
Benzo(a)anthracene	ND		ug/kg	200	--	1
Benzo(a)pyrene	ND		ug/kg	270	--	1
Benzo(b)fluoranthene	ND		ug/kg	200	--	1
Benzo(k)fluoranthene	ND		ug/kg	200	--	1
Chrysene	ND		ug/kg	200	--	1
Acenaphthylene	ND		ug/kg	270	--	1
Anthracene	ND		ug/kg	200	--	1
Benzo(ghi)perylene	ND		ug/kg	270	--	1
Fluorene	ND		ug/kg	340	--	1
Phenanthrene	ND		ug/kg	200	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	200	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	270	--	1
Pyrene	ND		ug/kg	200	--	1
Biphenyl	ND		ug/kg	740	--	1
Aniline	ND		ug/kg	400	--	1
4-Chloroaniline	ND		ug/kg	340	--	1
1-Methylnaphthalene	ND		ug/kg	340	--	1
2-Nitroaniline	ND		ug/kg	340	--	1
3-Nitroaniline	ND		ug/kg	340	--	1
4-Nitroaniline	ND		ug/kg	340	--	1
Dibenzofuran	ND		ug/kg	340	--	1
2-Methylnaphthalene	ND		ug/kg	400	--	1
n-Nitrosodimethylamine	ND		ug/kg	670	--	1
2,4,6-Trichlorophenol	ND		ug/kg	200	--	1
P-Chloro-M-Cresol	ND		ug/kg	340	--	1
2-Chlorophenol	ND		ug/kg	340	--	1
2,4-Dichlorophenol	ND		ug/kg	340	--	1
2,4-Dimethylphenol	ND		ug/kg	340	--	1
2-Nitrophenol	ND		ug/kg	740	--	1
4-Nitrophenol	ND		ug/kg	470	--	1
2,4-Dinitrophenol	ND		ug/kg	1600	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	880	--	1
Pentachlorophenol	ND		ug/kg	270	--	1
Phenol	ND		ug/kg	340	--	1
2-Methylphenol	ND		ug/kg	340	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	470	--	1
2,4,5-Trichlorophenol	ND		ug/kg	340	--	1
Benzoic Acid	ND		ug/kg	1100	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-03 Date Collected: 11/12/13 12:06

Client ID: RC-WC-111213-03 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	340	--	1
Carbazole	ND		ug/kg	340	--	1
Pyridine	ND		ug/kg	1300	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**6**	Q	25-120
Phenol-d6	17		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	88		30-120
2,4,6-Tribromophenol	0		0-136
4-Terphenyl-d14	100		18-120

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-03	RE	Date Collected:	11/12/13 12:06
Client ID:	RC-WC-111213-03		Date Received:	11/13/13
Sample Location:	DEVENS		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8270D		Extraction Date:	11/14/13 21:44
Analytical Date:	11/15/13 12:17			
Analyst:	RC			
Percent Solids:	49%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	260	--	1
Benzidine	ND		ug/kg	1100	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	330	--	1
Hexachlorobenzene	ND		ug/kg	200	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	330	--	1
2-Chloronaphthalene	ND		ug/kg	330	--	1
1,2-Dichlorobenzene	ND		ug/kg	330	--	1
1,3-Dichlorobenzene	ND		ug/kg	330	--	1
1,4-Dichlorobenzene	ND		ug/kg	330	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	330	--	1
2,4-Dinitrotoluene	ND		ug/kg	330	--	1
2,6-Dinitrotoluene	ND		ug/kg	330	--	1
Azobenzene	ND		ug/kg	330	--	1
Fluoranthene	ND		ug/kg	200	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	330	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	330	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	400	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	330	--	1
Hexachlorobutadiene	ND		ug/kg	330	--	1
Hexachlorocyclopentadiene	ND		ug/kg	930	--	1
Hexachloroethane	ND		ug/kg	260	--	1
Isophorone	ND		ug/kg	330	--	1
Naphthalene	ND		ug/kg	330	--	1
Nitrobenzene	ND		ug/kg	330	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	260	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	330	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	330	--	1
Butyl benzyl phthalate	ND		ug/kg	330	--	1
Di-n-butylphthalate	ND		ug/kg	330	--	1
Di-n-octylphthalate	ND		ug/kg	330	--	1
Diethyl phthalate	ND		ug/kg	330	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-03 RE Date Collected: 11/12/13 12:06

Client ID: RC-WC-111213-03 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	330	--	1
Benzo(a)anthracene	ND		ug/kg	200	--	1
Benzo(a)pyrene	ND		ug/kg	260	--	1
Benzo(b)fluoranthene	ND		ug/kg	200	--	1
Benzo(k)fluoranthene	ND		ug/kg	200	--	1
Chrysene	ND		ug/kg	200	--	1
Acenaphthylene	ND		ug/kg	260	--	1
Anthracene	ND		ug/kg	200	--	1
Benzo(ghi)perylene	ND		ug/kg	260	--	1
Fluorene	ND		ug/kg	330	--	1
Phenanthrene	ND		ug/kg	200	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	200	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	260	--	1
Pyrene	ND		ug/kg	200	--	1
Biphenyl	ND		ug/kg	730	--	1
Aniline	ND		ug/kg	400	--	1
4-Chloroaniline	ND		ug/kg	330	--	1
1-Methylnaphthalene	ND		ug/kg	330	--	1
2-Nitroaniline	ND		ug/kg	330	--	1
3-Nitroaniline	ND		ug/kg	330	--	1
4-Nitroaniline	ND		ug/kg	330	--	1
Dibenzofuran	ND		ug/kg	330	--	1
2-Methylnaphthalene	ND		ug/kg	400	--	1
n-Nitrosodimethylamine	ND		ug/kg	660	--	1
2,4,6-Trichlorophenol	ND		ug/kg	200	--	1
P-Chloro-M-Cresol	ND		ug/kg	330	--	1
2-Chlorophenol	ND		ug/kg	330	--	1
2,4-Dichlorophenol	ND		ug/kg	330	--	1
2,4-Dimethylphenol	ND		ug/kg	330	--	1
2-Nitrophenol	ND		ug/kg	730	--	1
4-Nitrophenol	ND		ug/kg	460	--	1
2,4-Dinitrophenol	ND		ug/kg	1600	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	860	--	1
Pentachlorophenol	ND		ug/kg	260	--	1
Phenol	ND		ug/kg	330	--	1
2-Methylphenol	ND		ug/kg	330	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	460	--	1
2,4,5-Trichlorophenol	ND		ug/kg	330	--	1
Benzoic Acid	ND		ug/kg	1100	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-03 RE Date Collected: 11/12/13 12:06

Client ID: RC-WC-111213-03 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	330	--	1
Carbazole	ND		ug/kg	330	--	1
Pyridine	ND		ug/kg	1300	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**2**	Q	25-120
Phenol-d6	17		10-120
Nitrobenzene-d5	59		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	0		0-136
4-Terphenyl-d14	92		18-120

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-04	Date Collected:	11/12/13 12:08
Client ID:	RC-WC-111213-04	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	11/13/13 21:33
Analytical Date:	11/14/13 11:55		
Analyst:	RC		
Percent Solids:	48%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	280	--	1
Benzidine	ND		ug/kg	1200	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	340	--	1
Hexachlorobenzene	ND		ug/kg	210	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	340	--	1
2-Chloronaphthalene	ND		ug/kg	340	--	1
1,2-Dichlorobenzene	ND		ug/kg	340	--	1
1,3-Dichlorobenzene	ND		ug/kg	340	--	1
1,4-Dichlorobenzene	ND		ug/kg	340	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	340	--	1
2,4-Dinitrotoluene	ND		ug/kg	340	--	1
2,6-Dinitrotoluene	ND		ug/kg	340	--	1
Azobenzene	ND		ug/kg	340	--	1
Fluoranthene	ND		ug/kg	210	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	340	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	340	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	410	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	340	--	1
Hexachlorobutadiene	ND		ug/kg	340	--	1
Hexachlorocyclopentadiene	ND		ug/kg	970	--	1
Hexachloroethane	ND		ug/kg	280	--	1
Isophorone	ND		ug/kg	340	--	1
Naphthalene	ND		ug/kg	340	--	1
Nitrobenzene	ND		ug/kg	340	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	280	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	340	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	340	--	1
Butyl benzyl phthalate	ND		ug/kg	340	--	1
Di-n-butylphthalate	ND		ug/kg	340	--	1
Di-n-octylphthalate	ND		ug/kg	340	--	1
Diethyl phthalate	ND		ug/kg	340	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-04 Date Collected: 11/12/13 12:08

Client ID: RC-WC-111213-04 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	340	--	1
Benzo(a)anthracene	ND		ug/kg	210	--	1
Benzo(a)pyrene	ND		ug/kg	280	--	1
Benzo(b)fluoranthene	ND		ug/kg	210	--	1
Benzo(k)fluoranthene	ND		ug/kg	210	--	1
Chrysene	ND		ug/kg	210	--	1
Acenaphthylene	ND		ug/kg	280	--	1
Anthracene	ND		ug/kg	210	--	1
Benzo(ghi)perylene	ND		ug/kg	280	--	1
Fluorene	ND		ug/kg	340	--	1
Phenanthrene	ND		ug/kg	210	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	210	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	280	--	1
Pyrene	ND		ug/kg	210	--	1
Biphenyl	ND		ug/kg	760	--	1
Aniline	ND		ug/kg	410	--	1
4-Chloroaniline	ND		ug/kg	340	--	1
1-Methylnaphthalene	ND		ug/kg	340	--	1
2-Nitroaniline	ND		ug/kg	340	--	1
3-Nitroaniline	ND		ug/kg	340	--	1
4-Nitroaniline	ND		ug/kg	340	--	1
Dibenzofuran	ND		ug/kg	340	--	1
2-Methylnaphthalene	ND		ug/kg	410	--	1
n-Nitrosodimethylamine	ND		ug/kg	690	--	1
2,4,6-Trichlorophenol	ND		ug/kg	210	--	1
P-Chloro-M-Cresol	ND		ug/kg	340	--	1
2-Chlorophenol	ND		ug/kg	340	--	1
2,4-Dichlorophenol	ND		ug/kg	340	--	1
2,4-Dimethylphenol	ND		ug/kg	340	--	1
2-Nitrophenol	ND		ug/kg	760	--	1
4-Nitrophenol	ND		ug/kg	480	--	1
2,4-Dinitrophenol	ND		ug/kg	1600	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	900	--	1
Pentachlorophenol	ND		ug/kg	280	--	1
Phenol	ND		ug/kg	340	--	1
2-Methylphenol	ND		ug/kg	340	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	480	--	1
2,4,5-Trichlorophenol	ND		ug/kg	340	--	1
Benzoic Acid	ND		ug/kg	1100	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-04 Date Collected: 11/12/13 12:08

Client ID: RC-WC-111213-04 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	340	--	1
Carbazole	ND		ug/kg	340	--	1
Pyridine	ND		ug/kg	1400	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**7**	Q	25-120
Phenol-d6	26		10-120
Nitrobenzene-d5	64		23-120
2-Fluorobiphenyl	84		30-120
2,4,6-Tribromophenol	1		0-136
4-Terphenyl-d14	104		18-120

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-04	RE	Date Collected:	11/12/13 12:08
Client ID:	RC-WC-111213-04		Date Received:	11/13/13
Sample Location:	DEVENS		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8270D		Extraction Date:	11/14/13 21:44
Analytical Date:	11/15/13 12:45			
Analyst:	RC			
Percent Solids:	48%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	280	--	1
Benzidine	ND		ug/kg	1200	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	340	--	1
Hexachlorobenzene	ND		ug/kg	210	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	340	--	1
2-Chloronaphthalene	ND		ug/kg	340	--	1
1,2-Dichlorobenzene	ND		ug/kg	340	--	1
1,3-Dichlorobenzene	ND		ug/kg	340	--	1
1,4-Dichlorobenzene	ND		ug/kg	340	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	340	--	1
2,4-Dinitrotoluene	ND		ug/kg	340	--	1
2,6-Dinitrotoluene	ND		ug/kg	340	--	1
Azobenzene	ND		ug/kg	340	--	1
Fluoranthene	ND		ug/kg	210	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	340	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	340	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	410	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	340	--	1
Hexachlorobutadiene	ND		ug/kg	340	--	1
Hexachlorocyclopentadiene	ND		ug/kg	960	--	1
Hexachloroethane	ND		ug/kg	280	--	1
Isophorone	ND		ug/kg	340	--	1
Naphthalene	ND		ug/kg	340	--	1
Nitrobenzene	ND		ug/kg	340	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	280	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	340	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	340	--	1
Butyl benzyl phthalate	ND		ug/kg	340	--	1
Di-n-butylphthalate	ND		ug/kg	340	--	1
Di-n-octylphthalate	ND		ug/kg	340	--	1
Diethyl phthalate	ND		ug/kg	340	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-04 RE
Client ID: RC-WC-111213-04
Sample Location: DEVENS

Date Collected: 11/12/13 12:08
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	340	--	1
Benzo(a)anthracene	ND		ug/kg	210	--	1
Benzo(a)pyrene	ND		ug/kg	280	--	1
Benzo(b)fluoranthene	ND		ug/kg	210	--	1
Benzo(k)fluoranthene	ND		ug/kg	210	--	1
Chrysene	ND		ug/kg	210	--	1
Acenaphthylene	ND		ug/kg	280	--	1
Anthracene	ND		ug/kg	210	--	1
Benzo(ghi)perylene	ND		ug/kg	280	--	1
Fluorene	ND		ug/kg	340	--	1
Phenanthrene	ND		ug/kg	210	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	210	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	280	--	1
Pyrene	ND		ug/kg	210	--	1
Biphenyl	ND		ug/kg	760	--	1
Aniline	ND		ug/kg	410	--	1
4-Chloroaniline	ND		ug/kg	340	--	1
1-Methylnaphthalene	ND		ug/kg	340	--	1
2-Nitroaniline	ND		ug/kg	340	--	1
3-Nitroaniline	ND		ug/kg	340	--	1
4-Nitroaniline	ND		ug/kg	340	--	1
Dibenzofuran	ND		ug/kg	340	--	1
2-Methylnaphthalene	ND		ug/kg	410	--	1
n-Nitrosodimethylamine	ND		ug/kg	690	--	1
2,4,6-Trichlorophenol	ND		ug/kg	210	--	1
P-Chloro-M-Cresol	ND		ug/kg	340	--	1
2-Chlorophenol	ND		ug/kg	340	--	1
2,4-Dichlorophenol	ND		ug/kg	340	--	1
2,4-Dimethylphenol	ND		ug/kg	340	--	1
2-Nitrophenol	ND		ug/kg	760	--	1
4-Nitrophenol	ND		ug/kg	480	--	1
2,4-Dinitrophenol	ND		ug/kg	1600	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	890	--	1
Pentachlorophenol	ND		ug/kg	280	--	1
Phenol	ND		ug/kg	340	--	1
2-Methylphenol	ND		ug/kg	340	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	480	--	1
2,4,5-Trichlorophenol	ND		ug/kg	340	--	1
Benzoic Acid	ND		ug/kg	1100	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-04 RE
Client ID: RC-WC-111213-04
Sample Location: DEVENS

Date Collected: 11/12/13 12:08
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	340	--	1
Carbazole	ND		ug/kg	340	--	1
Pyridine	ND		ug/kg	1400	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**8**	Q	25-120
Phenol-d6	35		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	71		30-120
2,4,6-Tribromophenol	4		0-136
4-Terphenyl-d14	86		18-120

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-05	Date Collected:	11/12/13 12:10
Client ID:	RC-WC-111213-05	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	11/13/13 21:33
Analytical Date:	11/14/13 12:20		
Analyst:	RC		
Percent Solids:	53%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	250	--	1
Benzidine	ND		ug/kg	1000	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	310	--	1
Hexachlorobenzene	ND		ug/kg	190	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	310	--	1
2-Chloronaphthalene	ND		ug/kg	310	--	1
1,2-Dichlorobenzene	ND		ug/kg	310	--	1
1,3-Dichlorobenzene	ND		ug/kg	310	--	1
1,4-Dichlorobenzene	ND		ug/kg	310	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	310	--	1
2,4-Dinitrotoluene	ND		ug/kg	310	--	1
2,6-Dinitrotoluene	ND		ug/kg	310	--	1
Azobenzene	ND		ug/kg	310	--	1
Fluoranthene	ND		ug/kg	190	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	310	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	310	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	370	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	310	--	1
Hexachlorobutadiene	ND		ug/kg	310	--	1
Hexachlorocyclopentadiene	ND		ug/kg	870	--	1
Hexachloroethane	ND		ug/kg	250	--	1
Isophorone	ND		ug/kg	310	--	1
Naphthalene	ND		ug/kg	310	--	1
Nitrobenzene	ND		ug/kg	310	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	250	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	310	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	310	--	1
Butyl benzyl phthalate	ND		ug/kg	310	--	1
Di-n-butylphthalate	ND		ug/kg	310	--	1
Di-n-octylphthalate	ND		ug/kg	310	--	1
Diethyl phthalate	ND		ug/kg	310	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-05 Date Collected: 11/12/13 12:10

Client ID: RC-WC-111213-05 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	310	--	1
Benzo(a)anthracene	ND		ug/kg	190	--	1
Benzo(a)pyrene	ND		ug/kg	250	--	1
Benzo(b)fluoranthene	ND		ug/kg	190	--	1
Benzo(k)fluoranthene	ND		ug/kg	190	--	1
Chrysene	ND		ug/kg	190	--	1
Acenaphthylene	ND		ug/kg	250	--	1
Anthracene	ND		ug/kg	190	--	1
Benzo(ghi)perylene	ND		ug/kg	250	--	1
Fluorene	ND		ug/kg	310	--	1
Phenanthrene	ND		ug/kg	190	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	190	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	250	--	1
Pyrene	ND		ug/kg	190	--	1
Biphenyl	ND		ug/kg	680	--	1
Aniline	ND		ug/kg	370	--	1
4-Chloroaniline	ND		ug/kg	310	--	1
1-Methylnaphthalene	ND		ug/kg	310	--	1
2-Nitroaniline	ND		ug/kg	310	--	1
3-Nitroaniline	ND		ug/kg	310	--	1
4-Nitroaniline	ND		ug/kg	310	--	1
Dibenzofuran	ND		ug/kg	310	--	1
2-Methylnaphthalene	ND		ug/kg	370	--	1
n-Nitrosodimethylamine	ND		ug/kg	620	--	1
2,4,6-Trichlorophenol	ND		ug/kg	190	--	1
P-Chloro-M-Cresol	ND		ug/kg	310	--	1
2-Chlorophenol	ND		ug/kg	310	--	1
2,4-Dichlorophenol	ND		ug/kg	310	--	1
2,4-Dimethylphenol	ND		ug/kg	310	--	1
2-Nitrophenol	ND		ug/kg	680	--	1
4-Nitrophenol	ND		ug/kg	430	--	1
2,4-Dinitrophenol	ND		ug/kg	1500	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	810	--	1
Pentachlorophenol	ND		ug/kg	250	--	1
Phenol	ND		ug/kg	310	--	1
2-Methylphenol	ND		ug/kg	310	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	430	--	1
2,4,5-Trichlorophenol	ND		ug/kg	310	--	1
Benzoic Acid	ND		ug/kg	990	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-05 Date Collected: 11/12/13 12:10

Client ID: RC-WC-111213-05 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	310	--	1
Carbazole	ND		ug/kg	310	--	1
Pyridine	ND		ug/kg	1200	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**5**	Q	25-120
Phenol-d6	14		10-120
Nitrobenzene-d5	64		23-120
2-Fluorobiphenyl	86		30-120
2,4,6-Tribromophenol	0		0-136
4-Terphenyl-d14	92		18-120

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-05	RE	Date Collected:	11/12/13 12:10
Client ID:	RC-WC-111213-05		Date Received:	11/13/13
Sample Location:	DEVENS		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8270D		Extraction Date:	11/14/13 21:44
Analytical Date:	11/15/13 13:13			
Analyst:	RC			
Percent Solids:	53%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	250	--	1
Benzidine	ND		ug/kg	1000	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	310	--	1
Hexachlorobenzene	ND		ug/kg	180	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	310	--	1
2-Chloronaphthalene	ND		ug/kg	310	--	1
1,2-Dichlorobenzene	ND		ug/kg	310	--	1
1,3-Dichlorobenzene	ND		ug/kg	310	--	1
1,4-Dichlorobenzene	ND		ug/kg	310	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	310	--	1
2,4-Dinitrotoluene	ND		ug/kg	310	--	1
2,6-Dinitrotoluene	ND		ug/kg	310	--	1
Azobenzene	ND		ug/kg	310	--	1
Fluoranthene	ND		ug/kg	180	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	310	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	310	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	370	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	310	--	1
Hexachlorobutadiene	ND		ug/kg	310	--	1
Hexachlorocyclopentadiene	ND		ug/kg	860	--	1
Hexachloroethane	ND		ug/kg	250	--	1
Isophorone	ND		ug/kg	310	--	1
Naphthalene	ND		ug/kg	310	--	1
Nitrobenzene	ND		ug/kg	310	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	250	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	310	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	310	--	1
Butyl benzyl phthalate	ND		ug/kg	310	--	1
Di-n-butylphthalate	ND		ug/kg	310	--	1
Di-n-octylphthalate	ND		ug/kg	310	--	1
Diethyl phthalate	ND		ug/kg	310	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-05 RE
Client ID: RC-WC-111213-05
Sample Location: DEVENS

Date Collected: 11/12/13 12:10
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	310	--	1
Benzo(a)anthracene	ND		ug/kg	180	--	1
Benzo(a)pyrene	ND		ug/kg	250	--	1
Benzo(b)fluoranthene	ND		ug/kg	180	--	1
Benzo(k)fluoranthene	ND		ug/kg	180	--	1
Chrysene	ND		ug/kg	180	--	1
Acenaphthylene	ND		ug/kg	250	--	1
Anthracene	ND		ug/kg	180	--	1
Benzo(ghi)perylene	ND		ug/kg	250	--	1
Fluorene	ND		ug/kg	310	--	1
Phenanthrene	ND		ug/kg	180	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	180	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	250	--	1
Pyrene	ND		ug/kg	180	--	1
Biphenyl	ND		ug/kg	680	--	1
Aniline	ND		ug/kg	370	--	1
4-Chloroaniline	ND		ug/kg	310	--	1
1-Methylnaphthalene	ND		ug/kg	310	--	1
2-Nitroaniline	ND		ug/kg	310	--	1
3-Nitroaniline	ND		ug/kg	310	--	1
4-Nitroaniline	ND		ug/kg	310	--	1
Dibenzofuran	ND		ug/kg	310	--	1
2-Methylnaphthalene	ND		ug/kg	370	--	1
n-Nitrosodimethylamine	ND		ug/kg	620	--	1
2,4,6-Trichlorophenol	ND		ug/kg	180	--	1
P-Chloro-M-Cresol	ND		ug/kg	310	--	1
2-Chlorophenol	ND		ug/kg	310	--	1
2,4-Dichlorophenol	ND		ug/kg	310	--	1
2,4-Dimethylphenol	ND		ug/kg	310	--	1
2-Nitrophenol	ND		ug/kg	680	--	1
4-Nitrophenol	ND		ug/kg	430	--	1
2,4-Dinitrophenol	ND		ug/kg	1500	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	800	--	1
Pentachlorophenol	ND		ug/kg	250	--	1
Phenol	ND		ug/kg	310	--	1
2-Methylphenol	ND		ug/kg	310	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	430	--	1
2,4,5-Trichlorophenol	ND		ug/kg	310	--	1
Benzoic Acid	ND		ug/kg	990	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-05 RE
Client ID: RC-WC-111213-05
Sample Location: DEVENS

Date Collected: 11/12/13 12:10
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	310	--	1
Carbazole	ND		ug/kg	310	--	1
Pyridine	ND		ug/kg	1200	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**4**	Q	25-120
Phenol-d6	23		10-120
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	70		30-120
2,4,6-Tribromophenol	2		0-136
4-Terphenyl-d14	82		18-120

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-06	Date Collected:	11/12/13 12:12
Client ID:	RC-WC-111213-06	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	11/13/13 21:33
Analytical Date:	11/14/13 12:46		
Analyst:	RC		
Percent Solids:	52%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	250	--	1
Benzidine	ND		ug/kg	1100	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	320	--	1
Hexachlorobenzene	ND		ug/kg	190	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	320	--	1
2-Chloronaphthalene	ND		ug/kg	320	--	1
1,2-Dichlorobenzene	ND		ug/kg	320	--	1
1,3-Dichlorobenzene	ND		ug/kg	320	--	1
1,4-Dichlorobenzene	ND		ug/kg	320	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	320	--	1
2,4-Dinitrotoluene	ND		ug/kg	320	--	1
2,6-Dinitrotoluene	ND		ug/kg	320	--	1
Azobenzene	ND		ug/kg	320	--	1
Fluoranthene	ND		ug/kg	190	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	320	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	320	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	380	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	320	--	1
Hexachlorobutadiene	ND		ug/kg	320	--	1
Hexachlorocyclopentadiene	ND		ug/kg	890	--	1
Hexachloroethane	ND		ug/kg	250	--	1
Isophorone	ND		ug/kg	320	--	1
Naphthalene	ND		ug/kg	320	--	1
Nitrobenzene	ND		ug/kg	320	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	250	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	320	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	320	--	1
Butyl benzyl phthalate	ND		ug/kg	320	--	1
Di-n-butylphthalate	ND		ug/kg	320	--	1
Di-n-octylphthalate	ND		ug/kg	320	--	1
Diethyl phthalate	ND		ug/kg	320	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-06 Date Collected: 11/12/13 12:12

Client ID: RC-WC-111213-06 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	320	--	1
Benzo(a)anthracene	ND		ug/kg	190	--	1
Benzo(a)pyrene	ND		ug/kg	250	--	1
Benzo(b)fluoranthene	ND		ug/kg	190	--	1
Benzo(k)fluoranthene	ND		ug/kg	190	--	1
Chrysene	ND		ug/kg	190	--	1
Acenaphthylene	ND		ug/kg	250	--	1
Anthracene	ND		ug/kg	190	--	1
Benzo(ghi)perylene	ND		ug/kg	250	--	1
Fluorene	ND		ug/kg	320	--	1
Phenanthrene	ND		ug/kg	190	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	190	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	250	--	1
Pyrene	ND		ug/kg	190	--	1
Biphenyl	ND		ug/kg	700	--	1
Aniline	ND		ug/kg	380	--	1
4-Chloroaniline	ND		ug/kg	320	--	1
1-Methylnaphthalene	ND		ug/kg	320	--	1
2-Nitroaniline	ND		ug/kg	320	--	1
3-Nitroaniline	ND		ug/kg	320	--	1
4-Nitroaniline	ND		ug/kg	320	--	1
Dibenzofuran	ND		ug/kg	320	--	1
2-Methylnaphthalene	ND		ug/kg	380	--	1
n-Nitrosodimethylamine	ND		ug/kg	640	--	1
2,4,6-Trichlorophenol	ND		ug/kg	190	--	1
P-Chloro-M-Cresol	ND		ug/kg	320	--	1
2-Chlorophenol	ND		ug/kg	320	--	1
2,4-Dichlorophenol	ND		ug/kg	320	--	1
2,4-Dimethylphenol	ND		ug/kg	320	--	1
2-Nitrophenol	ND		ug/kg	700	--	1
4-Nitrophenol	ND		ug/kg	440	--	1
2,4-Dinitrophenol	ND		ug/kg	1500	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	830	--	1
Pentachlorophenol	ND		ug/kg	250	--	1
Phenol	ND		ug/kg	320	--	1
2-Methylphenol	ND		ug/kg	320	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	440	--	1
2,4,5-Trichlorophenol	ND		ug/kg	320	--	1
Benzoic Acid	ND		ug/kg	1000	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-06 Date Collected: 11/12/13 12:12

Client ID: RC-WC-111213-06 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	320	--	1
Carbazole	ND		ug/kg	320	--	1
Pyridine	ND		ug/kg	1300	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**7**	Q	25-120
Phenol-d6	21		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	83		30-120
2,4,6-Tribromophenol	1		0-136
4-Terphenyl-d14	86		18-120

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-06	RE	Date Collected:	11/12/13 12:12
Client ID:	RC-WC-111213-06		Date Received:	11/13/13
Sample Location:	DEVENS		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8270D		Extraction Date:	11/14/13 21:44
Analytical Date:	11/15/13 13:41			
Analyst:	RC			
Percent Solids:	52%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	250	--	1
Benzidine	ND		ug/kg	1100	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	310	--	1
Hexachlorobenzene	ND		ug/kg	190	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	310	--	1
2-Chloronaphthalene	ND		ug/kg	310	--	1
1,2-Dichlorobenzene	ND		ug/kg	310	--	1
1,3-Dichlorobenzene	ND		ug/kg	310	--	1
1,4-Dichlorobenzene	ND		ug/kg	310	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	310	--	1
2,4-Dinitrotoluene	ND		ug/kg	310	--	1
2,6-Dinitrotoluene	ND		ug/kg	310	--	1
Azobenzene	ND		ug/kg	310	--	1
Fluoranthene	ND		ug/kg	190	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	310	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	310	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	380	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	310	--	1
Hexachlorobutadiene	ND		ug/kg	310	--	1
Hexachlorocyclopentadiene	ND		ug/kg	880	--	1
Hexachloroethane	ND		ug/kg	250	--	1
Isophorone	ND		ug/kg	310	--	1
Naphthalene	ND		ug/kg	310	--	1
Nitrobenzene	ND		ug/kg	310	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	250	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	310	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	310	--	1
Butyl benzyl phthalate	ND		ug/kg	310	--	1
Di-n-butylphthalate	ND		ug/kg	310	--	1
Di-n-octylphthalate	ND		ug/kg	310	--	1
Diethyl phthalate	ND		ug/kg	310	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-06 RE Date Collected: 11/12/13 12:12

Client ID: RC-WC-111213-06 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	310	--	1
Benzo(a)anthracene	ND		ug/kg	190	--	1
Benzo(a)pyrene	ND		ug/kg	250	--	1
Benzo(b)fluoranthene	ND		ug/kg	190	--	1
Benzo(k)fluoranthene	ND		ug/kg	190	--	1
Chrysene	ND		ug/kg	190	--	1
Acenaphthylene	ND		ug/kg	250	--	1
Anthracene	ND		ug/kg	190	--	1
Benzo(ghi)perylene	ND		ug/kg	250	--	1
Fluorene	ND		ug/kg	310	--	1
Phenanthrene	ND		ug/kg	190	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	190	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	250	--	1
Pyrene	ND		ug/kg	190	--	1
Biphenyl	ND		ug/kg	690	--	1
Aniline	ND		ug/kg	380	--	1
4-Chloroaniline	ND		ug/kg	310	--	1
1-Methylnaphthalene	ND		ug/kg	310	--	1
2-Nitroaniline	ND		ug/kg	310	--	1
3-Nitroaniline	ND		ug/kg	310	--	1
4-Nitroaniline	ND		ug/kg	310	--	1
Dibenzofuran	ND		ug/kg	310	--	1
2-Methylnaphthalene	ND		ug/kg	380	--	1
n-Nitrosodimethylamine	ND		ug/kg	630	--	1
2,4,6-Trichlorophenol	ND		ug/kg	190	--	1
P-Chloro-M-Cresol	ND		ug/kg	310	--	1
2-Chlorophenol	ND		ug/kg	310	--	1
2,4-Dichlorophenol	ND		ug/kg	310	--	1
2,4-Dimethylphenol	ND		ug/kg	310	--	1
2-Nitrophenol	ND		ug/kg	690	--	1
4-Nitrophenol	ND		ug/kg	440	--	1
2,4-Dinitrophenol	ND		ug/kg	1500	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	820	--	1
Pentachlorophenol	ND		ug/kg	250	--	1
Phenol	ND		ug/kg	310	--	1
2-Methylphenol	ND		ug/kg	310	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	440	--	1
2,4,5-Trichlorophenol	ND		ug/kg	310	--	1
Benzoic Acid	ND		ug/kg	1000	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-06 RE
Client ID: RC-WC-111213-06
Sample Location: DEVENS

Date Collected: 11/12/13 12:12
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	310	--	1
Carbazole	ND		ug/kg	310	--	1
Pyridine	ND		ug/kg	1200	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**5**	Q	25-120
Phenol-d6	29		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	77		30-120
2,4,6-Tribromophenol	2		0-136
4-Terphenyl-d14	90		18-120

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-07	Date Collected:	11/12/13 12:14
Client ID:	RC-WC-111213-07	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	11/13/13 21:33
Analytical Date:	11/14/13 13:12		
Analyst:	RC		
Percent Solids:	53%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	250	--	1
Benzidine	ND		ug/kg	1000	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	310	--	1
Hexachlorobenzene	ND		ug/kg	190	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	310	--	1
2-Chloronaphthalene	ND		ug/kg	310	--	1
1,2-Dichlorobenzene	ND		ug/kg	310	--	1
1,3-Dichlorobenzene	ND		ug/kg	310	--	1
1,4-Dichlorobenzene	ND		ug/kg	310	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	310	--	1
2,4-Dinitrotoluene	ND		ug/kg	310	--	1
2,6-Dinitrotoluene	ND		ug/kg	310	--	1
Azobenzene	ND		ug/kg	310	--	1
Fluoranthene	ND		ug/kg	190	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	310	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	310	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	370	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	310	--	1
Hexachlorobutadiene	ND		ug/kg	310	--	1
Hexachlorocyclopentadiene	ND		ug/kg	870	--	1
Hexachloroethane	ND		ug/kg	250	--	1
Isophorone	ND		ug/kg	310	--	1
Naphthalene	ND		ug/kg	310	--	1
Nitrobenzene	ND		ug/kg	310	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	250	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	310	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	310	--	1
Butyl benzyl phthalate	ND		ug/kg	310	--	1
Di-n-butylphthalate	ND		ug/kg	310	--	1
Di-n-octylphthalate	ND		ug/kg	310	--	1
Diethyl phthalate	ND		ug/kg	310	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-07 Date Collected: 11/12/13 12:14

Client ID: RC-WC-111213-07 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	310	--	1
Benzo(a)anthracene	ND		ug/kg	190	--	1
Benzo(a)pyrene	ND		ug/kg	250	--	1
Benzo(b)fluoranthene	ND		ug/kg	190	--	1
Benzo(k)fluoranthene	ND		ug/kg	190	--	1
Chrysene	ND		ug/kg	190	--	1
Acenaphthylene	ND		ug/kg	250	--	1
Anthracene	ND		ug/kg	190	--	1
Benzo(ghi)perylene	ND		ug/kg	250	--	1
Fluorene	ND		ug/kg	310	--	1
Phenanthrene	ND		ug/kg	190	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	190	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	250	--	1
Pyrene	ND		ug/kg	190	--	1
Biphenyl	ND		ug/kg	680	--	1
Aniline	ND		ug/kg	370	--	1
4-Chloroaniline	ND		ug/kg	310	--	1
1-Methylnaphthalene	ND		ug/kg	310	--	1
2-Nitroaniline	ND		ug/kg	310	--	1
3-Nitroaniline	ND		ug/kg	310	--	1
4-Nitroaniline	ND		ug/kg	310	--	1
Dibenzofuran	ND		ug/kg	310	--	1
2-Methylnaphthalene	ND		ug/kg	370	--	1
n-Nitrosodimethylamine	ND		ug/kg	620	--	1
2,4,6-Trichlorophenol	ND		ug/kg	190	--	1
P-Chloro-M-Cresol	ND		ug/kg	310	--	1
2-Chlorophenol	ND		ug/kg	310	--	1
2,4-Dichlorophenol	ND		ug/kg	310	--	1
2,4-Dimethylphenol	ND		ug/kg	310	--	1
2-Nitrophenol	ND		ug/kg	680	--	1
4-Nitrophenol	ND		ug/kg	430	--	1
2,4-Dinitrophenol	ND		ug/kg	1500	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	810	--	1
Pentachlorophenol	ND		ug/kg	250	--	1
Phenol	ND		ug/kg	310	--	1
2-Methylphenol	ND		ug/kg	310	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	430	--	1
2,4,5-Trichlorophenol	ND		ug/kg	310	--	1
Benzoic Acid	ND		ug/kg	990	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-07 Date Collected: 11/12/13 12:14

Client ID: RC-WC-111213-07 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	310	--	1
Carbazole	ND		ug/kg	310	--	1
Pyridine	ND		ug/kg	1200	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**6**	Q	25-120
Phenol-d6	17		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	87		30-120
2,4,6-Tribromophenol	1		0-136
4-Terphenyl-d14	104		18-120

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-07	RE	Date Collected:	11/12/13 12:14
Client ID:	RC-WC-111213-07		Date Received:	11/13/13
Sample Location:	DEVENS		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8270D		Extraction Date:	11/14/13 21:44
Analytical Date:	11/15/13 14:09			
Analyst:	RC			
Percent Solids:	53%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	240	--	1
Benzidine	ND		ug/kg	1000	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	300	--	1
Hexachlorobenzene	ND		ug/kg	180	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	300	--	1
2-Chloronaphthalene	ND		ug/kg	300	--	1
1,2-Dichlorobenzene	ND		ug/kg	300	--	1
1,3-Dichlorobenzene	ND		ug/kg	300	--	1
1,4-Dichlorobenzene	ND		ug/kg	300	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	300	--	1
2,4-Dinitrotoluene	ND		ug/kg	300	--	1
2,6-Dinitrotoluene	ND		ug/kg	300	--	1
Azobenzene	ND		ug/kg	300	--	1
Fluoranthene	ND		ug/kg	180	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	300	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	300	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	360	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	300	--	1
Hexachlorobutadiene	ND		ug/kg	300	--	1
Hexachlorocyclopentadiene	ND		ug/kg	850	--	1
Hexachloroethane	ND		ug/kg	240	--	1
Isophorone	ND		ug/kg	300	--	1
Naphthalene	ND		ug/kg	300	--	1
Nitrobenzene	ND		ug/kg	300	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	240	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	300	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	300	--	1
Butyl benzyl phthalate	ND		ug/kg	300	--	1
Di-n-butylphthalate	ND		ug/kg	300	--	1
Di-n-octylphthalate	ND		ug/kg	300	--	1
Diethyl phthalate	ND		ug/kg	300	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-07 RE Date Collected: 11/12/13 12:14

Client ID: RC-WC-111213-07 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	300	--	1
Benzo(a)anthracene	ND		ug/kg	180	--	1
Benzo(a)pyrene	ND		ug/kg	240	--	1
Benzo(b)fluoranthene	ND		ug/kg	180	--	1
Benzo(k)fluoranthene	ND		ug/kg	180	--	1
Chrysene	ND		ug/kg	180	--	1
Acenaphthylene	ND		ug/kg	240	--	1
Anthracene	ND		ug/kg	180	--	1
Benzo(ghi)perylene	ND		ug/kg	240	--	1
Fluorene	ND		ug/kg	300	--	1
Phenanthrene	ND		ug/kg	180	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	180	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	240	--	1
Pyrene	ND		ug/kg	180	--	1
Biphenyl	ND		ug/kg	670	--	1
Aniline	ND		ug/kg	360	--	1
4-Chloroaniline	ND		ug/kg	300	--	1
1-Methylnaphthalene	ND		ug/kg	300	--	1
2-Nitroaniline	ND		ug/kg	300	--	1
3-Nitroaniline	ND		ug/kg	300	--	1
4-Nitroaniline	ND		ug/kg	300	--	1
Dibenzofuran	ND		ug/kg	300	--	1
2-Methylnaphthalene	ND		ug/kg	360	--	1
n-Nitrosodimethylamine	ND		ug/kg	610	--	1
2,4,6-Trichlorophenol	ND		ug/kg	180	--	1
P-Chloro-M-Cresol	ND		ug/kg	300	--	1
2-Chlorophenol	ND		ug/kg	300	--	1
2,4-Dichlorophenol	ND		ug/kg	300	--	1
2,4-Dimethylphenol	ND		ug/kg	300	--	1
2-Nitrophenol	ND		ug/kg	670	--	1
4-Nitrophenol	ND		ug/kg	420	--	1
2,4-Dinitrophenol	ND		ug/kg	1500	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	790	--	1
Pentachlorophenol	ND		ug/kg	240	--	1
Phenol	ND		ug/kg	300	--	1
2-Methylphenol	ND		ug/kg	300	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	420	--	1
2,4,5-Trichlorophenol	ND		ug/kg	300	--	1
Benzoic Acid	ND		ug/kg	970	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-07 RE
Client ID: RC-WC-111213-07
Sample Location: DEVENS

Date Collected: 11/12/13 12:14
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	300	--	1
Carbazole	ND		ug/kg	300	--	1
Pyridine	ND		ug/kg	1200	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**3**	Q	25-120
Phenol-d6	21		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	78		30-120
2,4,6-Tribromophenol	1		0-136
4-Terphenyl-d14	95		18-120

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-08	Date Collected:	11/12/13 12:16
Client ID:	RC-WC-111213-08	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	11/13/13 21:33
Analytical Date:	11/14/13 13:37		
Analyst:	RC		
Percent Solids:	49%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	270	--	1
Benzidine	ND		ug/kg	1200	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	340	--	1
Hexachlorobenzene	ND		ug/kg	200	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	340	--	1
2-Chloronaphthalene	ND		ug/kg	340	--	1
1,2-Dichlorobenzene	ND		ug/kg	340	--	1
1,3-Dichlorobenzene	ND		ug/kg	340	--	1
1,4-Dichlorobenzene	ND		ug/kg	340	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	340	--	1
2,4-Dinitrotoluene	ND		ug/kg	340	--	1
2,6-Dinitrotoluene	ND		ug/kg	340	--	1
Azobenzene	ND		ug/kg	340	--	1
Fluoranthene	ND		ug/kg	200	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	340	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	340	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	410	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	340	--	1
Hexachlorobutadiene	ND		ug/kg	340	--	1
Hexachlorocyclopentadiene	ND		ug/kg	950	--	1
Hexachloroethane	ND		ug/kg	270	--	1
Isophorone	ND		ug/kg	340	--	1
Naphthalene	ND		ug/kg	340	--	1
Nitrobenzene	ND		ug/kg	340	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	270	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	340	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	340	--	1
Butyl benzyl phthalate	ND		ug/kg	340	--	1
Di-n-butylphthalate	ND		ug/kg	340	--	1
Di-n-octylphthalate	ND		ug/kg	340	--	1
Diethyl phthalate	ND		ug/kg	340	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-08 Date Collected: 11/12/13 12:16

Client ID: RC-WC-111213-08 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	340	--	1
Benzo(a)anthracene	ND		ug/kg	200	--	1
Benzo(a)pyrene	ND		ug/kg	270	--	1
Benzo(b)fluoranthene	ND		ug/kg	200	--	1
Benzo(k)fluoranthene	ND		ug/kg	200	--	1
Chrysene	ND		ug/kg	200	--	1
Acenaphthylene	ND		ug/kg	270	--	1
Anthracene	ND		ug/kg	200	--	1
Benzo(ghi)perylene	ND		ug/kg	270	--	1
Fluorene	ND		ug/kg	340	--	1
Phenanthrene	ND		ug/kg	200	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	200	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	270	--	1
Pyrene	ND		ug/kg	200	--	1
Biphenyl	ND		ug/kg	750	--	1
Aniline	ND		ug/kg	410	--	1
4-Chloroaniline	ND		ug/kg	340	--	1
1-Methylnaphthalene	ND		ug/kg	340	--	1
2-Nitroaniline	ND		ug/kg	340	--	1
3-Nitroaniline	ND		ug/kg	340	--	1
4-Nitroaniline	ND		ug/kg	340	--	1
Dibenzofuran	ND		ug/kg	340	--	1
2-Methylnaphthalene	ND		ug/kg	410	--	1
n-Nitrosodimethylamine	ND		ug/kg	680	--	1
2,4,6-Trichlorophenol	ND		ug/kg	200	--	1
P-Chloro-M-Cresol	ND		ug/kg	340	--	1
2-Chlorophenol	ND		ug/kg	340	--	1
2,4-Dichlorophenol	ND		ug/kg	340	--	1
2,4-Dimethylphenol	ND		ug/kg	340	--	1
2-Nitrophenol	ND		ug/kg	750	--	1
4-Nitrophenol	ND		ug/kg	480	--	1
2,4-Dinitrophenol	ND		ug/kg	1600	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	880	--	1
Pentachlorophenol	ND		ug/kg	270	--	1
Phenol	ND		ug/kg	340	--	1
2-Methylphenol	ND		ug/kg	340	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	480	--	1
2,4,5-Trichlorophenol	ND		ug/kg	340	--	1
Benzoic Acid	ND		ug/kg	1100	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-08 Date Collected: 11/12/13 12:16

Client ID: RC-WC-111213-08 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	340	--	1
Carbazole	ND		ug/kg	340	--	1
Pyridine	ND		ug/kg	1400	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**7**	Q	25-120
Phenol-d6	21		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	87		30-120
2,4,6-Tribromophenol	1		0-136
4-Terphenyl-d14	99		18-120

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-08	RE	Date Collected:	11/12/13 12:16
Client ID:	RC-WC-111213-08		Date Received:	11/13/13
Sample Location:	DEVENS		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8270D		Extraction Date:	11/14/13 21:44
Analytical Date:	11/15/13 14:37			
Analyst:	RC			
Percent Solids:	49%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	270	--	1
Benzidine	ND		ug/kg	1100	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	330	--	1
Hexachlorobenzene	ND		ug/kg	200	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	330	--	1
2-Chloronaphthalene	ND		ug/kg	330	--	1
1,2-Dichlorobenzene	ND		ug/kg	330	--	1
1,3-Dichlorobenzene	ND		ug/kg	330	--	1
1,4-Dichlorobenzene	ND		ug/kg	330	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	330	--	1
2,4-Dinitrotoluene	ND		ug/kg	330	--	1
2,6-Dinitrotoluene	ND		ug/kg	330	--	1
Azobenzene	ND		ug/kg	330	--	1
Fluoranthene	ND		ug/kg	200	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	330	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	330	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	400	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	330	--	1
Hexachlorobutadiene	ND		ug/kg	330	--	1
Hexachlorocyclopentadiene	ND		ug/kg	930	--	1
Hexachloroethane	ND		ug/kg	270	--	1
Isophorone	ND		ug/kg	330	--	1
Naphthalene	ND		ug/kg	330	--	1
Nitrobenzene	ND		ug/kg	330	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	270	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	330	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	330	--	1
Butyl benzyl phthalate	ND		ug/kg	330	--	1
Di-n-butylphthalate	ND		ug/kg	330	--	1
Di-n-octylphthalate	ND		ug/kg	330	--	1
Diethyl phthalate	ND		ug/kg	330	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-08 RE Date Collected: 11/12/13 12:16

Client ID: RC-WC-111213-08 Date Received: 11/13/13

Sample Location: DEVENS Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/kg	330	--	1
Benzo(a)anthracene	ND		ug/kg	200	--	1
Benzo(a)pyrene	ND		ug/kg	270	--	1
Benzo(b)fluoranthene	ND		ug/kg	200	--	1
Benzo(k)fluoranthene	ND		ug/kg	200	--	1
Chrysene	ND		ug/kg	200	--	1
Acenaphthylene	ND		ug/kg	270	--	1
Anthracene	ND		ug/kg	200	--	1
Benzo(ghi)perylene	ND		ug/kg	270	--	1
Fluorene	ND		ug/kg	330	--	1
Phenanthrene	ND		ug/kg	200	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	200	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	270	--	1
Pyrene	ND		ug/kg	200	--	1
Biphenyl	ND		ug/kg	730	--	1
Aniline	ND		ug/kg	400	--	1
4-Chloroaniline	ND		ug/kg	330	--	1
1-Methylnaphthalene	ND		ug/kg	330	--	1
2-Nitroaniline	ND		ug/kg	330	--	1
3-Nitroaniline	ND		ug/kg	330	--	1
4-Nitroaniline	ND		ug/kg	330	--	1
Dibenzofuran	ND		ug/kg	330	--	1
2-Methylnaphthalene	ND		ug/kg	400	--	1
n-Nitrosodimethylamine	ND		ug/kg	660	--	1
2,4,6-Trichlorophenol	ND		ug/kg	200	--	1
P-Chloro-M-Cresol	ND		ug/kg	330	--	1
2-Chlorophenol	ND		ug/kg	330	--	1
2,4-Dichlorophenol	ND		ug/kg	330	--	1
2,4-Dimethylphenol	ND		ug/kg	330	--	1
2-Nitrophenol	ND		ug/kg	730	--	1
4-Nitrophenol	ND		ug/kg	460	--	1
2,4-Dinitrophenol	ND		ug/kg	1600	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	860	--	1
Pentachlorophenol	ND		ug/kg	270	--	1
Phenol	ND		ug/kg	330	--	1
2-Methylphenol	ND		ug/kg	330	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	460	--	1
2,4,5-Trichlorophenol	ND		ug/kg	330	--	1
Benzoic Acid	ND		ug/kg	1100	--	1

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-08 RE
Client ID: RC-WC-111213-08
Sample Location: DEVENS

Date Collected: 11/12/13 12:16
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzyl Alcohol	ND		ug/kg	330	--	1
Carbazole	ND		ug/kg	330	--	1
Pyridine	ND		ug/kg	1300	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**2**	Q	25-120
Phenol-d6	18		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	81		30-120
2,4,6-Tribromophenol	1		0-136
4-Terphenyl-d14	90		18-120

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/15/13 09:57
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 11/14/13 21:44

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG651875-1					
Acenaphthene	ND		ug/kg	130	--
Benzidine	ND		ug/kg	560	--
1,2,4-Trichlorobenzene	ND		ug/kg	160	--
Hexachlorobenzene	ND		ug/kg	99	--
Bis(2-chloroethyl)ether	ND		ug/kg	160	--
2-Chloronaphthalene	ND		ug/kg	160	--
1,2-Dichlorobenzene	ND		ug/kg	160	--
1,3-Dichlorobenzene	ND		ug/kg	160	--
1,4-Dichlorobenzene	ND		ug/kg	160	--
3,3'-Dichlorobenzidine	ND		ug/kg	160	--
2,4-Dinitrotoluene	ND		ug/kg	160	--
2,6-Dinitrotoluene	ND		ug/kg	160	--
Azobenzene	ND		ug/kg	160	--
Fluoranthene	ND		ug/kg	99	--
4-Chlorophenyl phenyl ether	ND		ug/kg	160	--
4-Bromophenyl phenyl ether	ND		ug/kg	160	--
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--
Bis(2-chloroethoxy)methane	ND		ug/kg	160	--
Hexachlorobutadiene	ND		ug/kg	160	--
Hexachlorocyclopentadiene	ND		ug/kg	460	--
Hexachloroethane	ND		ug/kg	130	--
Isophorone	ND		ug/kg	160	--
Naphthalene	ND		ug/kg	160	--
Nitrobenzene	ND		ug/kg	160	--
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	130	--
n-Nitrosodi-n-propylamine	ND		ug/kg	160	--
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	160	--
Butyl benzyl phthalate	ND		ug/kg	160	--
Di-n-butylphthalate	ND		ug/kg	160	--
Di-n-octylphthalate	ND		ug/kg	160	--
Diethyl phthalate	ND		ug/kg	160	--

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/15/13 09:57
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 11/14/13 21:44

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG651875-1					
Dimethyl phthalate	ND		ug/kg	160	--
Benzo(a)anthracene	ND		ug/kg	99	--
Benzo(a)pyrene	ND		ug/kg	130	--
Benzo(b)fluoranthene	ND		ug/kg	99	--
Benzo(k)fluoranthene	ND		ug/kg	99	--
Chrysene	ND		ug/kg	99	--
Acenaphthylene	ND		ug/kg	130	--
Anthracene	ND		ug/kg	99	--
Benzo(ghi)perylene	ND		ug/kg	130	--
Fluorene	ND		ug/kg	160	--
Phenanthrene	ND		ug/kg	99	--
Dibenzo(a,h)anthracene	ND		ug/kg	99	--
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	130	--
Pyrene	ND		ug/kg	99	--
Biphenyl	ND		ug/kg	360	--
Aniline	ND		ug/kg	200	--
4-Chloroaniline	ND		ug/kg	160	--
1-Methylnaphthalene	ND		ug/kg	160	--
2-Nitroaniline	ND		ug/kg	160	--
3-Nitroaniline	ND		ug/kg	160	--
4-Nitroaniline	ND		ug/kg	160	--
Dibenzofuran	ND		ug/kg	160	--
2-Methylnaphthalene	ND		ug/kg	200	--
n-Nitrosodimethylamine	ND		ug/kg	330	--
2,4,6-Trichlorophenol	ND		ug/kg	99	--
P-Chloro-M-Cresol	ND		ug/kg	160	--
2-Chlorophenol	ND		ug/kg	160	--
2,4-Dichlorophenol	ND		ug/kg	160	--
2,4-Dimethylphenol	ND		ug/kg	160	--
2-Nitrophenol	ND		ug/kg	360	--
4-Nitrophenol	ND		ug/kg	230	--

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/15/13 09:57
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 11/14/13 21:44

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG651875-1					
2,4-Dinitrophenol	ND		ug/kg	790	--
4,6-Dinitro-o-cresol	ND		ug/kg	430	--
Pentachlorophenol	ND		ug/kg	130	--
Phenol	ND		ug/kg	160	--
2-Methylphenol	ND		ug/kg	160	--
3-Methylphenol/4-Methylphenol	ND		ug/kg	230	--
2,4,5-Trichlorophenol	ND		ug/kg	160	--
Benzoic Acid	ND		ug/kg	530	--
Benzyl Alcohol	ND		ug/kg	160	--
Carbazole	ND		ug/kg	160	--
Pyridine	ND		ug/kg	660	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	71		25-120
Phenol-d6	70		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	65		30-120
2,4,6-Tribromophenol	74		0-136
4-Terphenyl-d14	85		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323043

Report Date: 11/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG651875-2 WG651875-3								
Acenaphthene	90		89		31-137	1		50
Benzidine	31		16		10-66	**64**	Q	50
1,2,4-Trichlorobenzene	78		76		38-107	3		50
Hexachlorobenzene	89		84		40-140	6		50
Bis(2-chloroethyl)ether	70		70		40-140	0		50
2-Chloronaphthalene	82		83		40-140	1		50
1,2-Dichlorobenzene	73		72		40-140	1		50
1,3-Dichlorobenzene	69		71		40-140	3		50
1,4-Dichlorobenzene	70		70		28-104	0		50
3,3'-Dichlorobenzidine	82		61		40-140	29		50
2,4-Dinitrotoluene	**100**	Q	**92**	Q	28-89	8		50
2,6-Dinitrotoluene	88		84		40-140	5		50
Azobenzene	100		95		40-140	5		50
Fluoranthene	101		93		40-140	8		50
4-Chlorophenyl phenyl ether	93		89		40-140	4		50
4-Bromophenyl phenyl ether	93		89		40-140	4		50
Bis(2-chloroisopropyl)ether	76		74		40-140	3		50
Bis(2-chloroethoxy)methane	77		77		40-117	0		50
Hexachlorobutadiene	76		74		40-140	3		50
Hexachlorocyclopentadiene	79		77		40-140	3		50
Hexachloroethane	70		70		40-140	0		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323043

Report Date: 11/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG651875-2 WG651875-3								
Isophorone	70		72		40-140	3		50
Naphthalene	78		77		40-140	1		50
Nitrobenzene	82		80		40-140	2		50
NitrosoDiPhenylAmine(NDPA)/DPA	97		90		36-157	7		50
n-Nitrosodi-n-propylamine	73		73		32-121	0		50
Bis(2-Ethylhexyl)phthalate	109		94		40-140	15		50
Butyl benzyl phthalate	99		93		40-140	6		50
Di-n-butylphthalate	99		90		40-140	10		50
Di-n-octylphthalate	111		100		40-140	10		50
Diethyl phthalate	95		88		40-140	8		50
Dimethyl phthalate	96		90		40-140	6		50
Benzo(a)anthracene	108		96		40-140	12		50
Benzo(a)pyrene	106		97		40-140	9		50
Benzo(b)fluoranthene	117		104		40-140	12		50
Benzo(k)fluoranthene	87		80		40-140	8		50
Chrysene	100		91		40-140	9		50
Acenaphthylene	85		84		40-140	1		50
Anthracene	102		94		40-140	8		50
Benzo(ghi)perylene	95		90		40-140	5		50
Fluorene	96		92		40-140	4		50
Phenanthrene	103		95		40-140	8		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG651875-2 WG651875-3								
Dibenzo(a,h)anthracene	99		93		40-140	6		50
Indeno(1,2,3-cd)Pyrene	96		90		40-140	6		50
Pyrene	94		87		35-142	8		50
Biphenyl	89		89		54-104	0		50
Aniline	56		46		40-140	20		50
4-Chloroaniline	48		**34**	Q	40-140	34		50
1-Methylnaphthalene	82		82		26-130	0		50
2-Nitroaniline	92		87		47-134	6		50
3-Nitroaniline	63		47		26-129	29		50
4-Nitroaniline	103		95		41-125	8		50
Dibenzofuran	92		90		40-140	2		50
2-Methylnaphthalene	79		79		40-140	0		50
n-Nitrosodimethylamine	69		71		22-100	3		50
2,4,6-Trichlorophenol	92		90		30-130	2		50
P-Chloro-M-Cresol	94		91		26-103	3		50
2-Chlorophenol	80		77		25-102	4		50
2,4-Dichlorophenol	91		93		30-130	2		50
2,4-Dimethylphenol	84		88		30-130	5		50
2-Nitrophenol	75		75		30-130	0		50
4-Nitrophenol	106		96		11-114	10		50
2,4-Dinitrophenol	60		68		4-130	13		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG651875-2 WG651875-3								
4,6-Dinitro-o-cresol	90		87		10-130	3		50
Pentachlorophenol	109		102		17-109	7		50
Phenol	83		81		26-90	2		50
2-Methylphenol	83		84		30-130.	1		50
3-Methylphenol/4-Methylphenol	82		82		30-130	0		50
2,4,5-Trichlorophenol	94		94		30-130	0		50
Benzoic Acid	35		40		10-110	13		50
Benzyl Alcohol	80		79		40-140	1		50
Carbazole	101		92		54-128	9		50
Pyridine	46		46		10-93	0		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	73		75		25-120
Phenol-d6	78		78		10-120
Nitrobenzene-d5	73		74		23-120
2-Fluorobiphenyl	78		81		30-120
2,4,6-Tribromophenol	97		92		0-136
4-Terphenyl-d14	93		86		18-120

PETROLEUM HYDROCARBONS

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-01	Date Collected:	11/12/13 12:02
Client ID:	RC-WC-111213-01	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	11/14/13 14:03
Analytical Date:	11/14/13 23:26		
Analyst:	AR		
Percent Solids:	52%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	66700		ug/kg	62500	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	52		40-140

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-02	Date Collected:	11/12/13 12:04
Client ID:	RC-WC-111213-02	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	11/14/13 14:03
Analytical Date:	11/14/13 23:57		
Analyst:	AR		
Percent Solids:	52%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	82900		ug/kg	63300	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	63		40-140

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-03	Date Collected:	11/12/13 12:06
Client ID:	RC-WC-111213-03	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	11/14/13 14:03
Analytical Date:	11/15/13 00:28		
Analyst:	AR		
Percent Solids:	49%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	74300		ug/kg	64600	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	62		40-140

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-04	Date Collected:	11/12/13 12:08
Client ID:	RC-WC-111213-04	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	11/14/13 14:03
Analytical Date:	11/15/13 00:59		
Analyst:	AR		
Percent Solids:	48%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	133000		ug/kg	68700	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	68		40-140

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-05	Date Collected:	11/12/13 12:10
Client ID:	RC-WC-111213-05	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	11/14/13 14:03
Analytical Date:	11/15/13 01:30		
Analyst:	AR		
Percent Solids:	53%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	96500		ug/kg	59800	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	61		40-140

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-06	Date Collected:	11/12/13 12:12
Client ID:	RC-WC-111213-06	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	11/14/13 14:03
Analytical Date:	11/15/13 02:00		
Analyst:	AR		
Percent Solids:	52%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	132000		ug/kg	61500	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	62		40-140

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-07	Date Collected:	11/12/13 12:14
Client ID:	RC-WC-111213-07	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	11/14/13 14:03
Analytical Date:	11/15/13 02:31		
Analyst:	AR		
Percent Solids:	53%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	98800		ug/kg	61700	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	65		40-140

Project Name: AC001.005 **Lab Number:** L1323043

Project Number: AC001.005 **Report Date:** 11/15/13

SAMPLE RESULTS

Lab ID:	L1323043-08	Date Collected:	11/12/13 12:16
Client ID:	RC-WC-111213-08	Date Received:	11/13/13
Sample Location:	DEVENS	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8015C(M)	Extraction Date:	11/14/13 14:03
Analytical Date:	11/15/13 03:02		
Analyst:	AR		
Percent Solids:	49%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	919000		ug/kg	65800	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	64		40-140

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015C(M)
Analytical Date: 11/14/13 21:53
Analyst: AR

Extraction Method: EPA 3546
Extraction Date: 11/14/13 14:03

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 01-08 Batch: WG651786-1					
TPH	ND		ug/kg	32100	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	96		40-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323043

Report Date: 11/15/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-08 Batch: WG651786-2								
TPH	76		-		40-140	-		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	88				40-140

Lab Duplicate Analysis
Batch Quality Control

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG651786-3 QC Sample: L1323043-01 Client ID: RC-WC-111213-01						
TPH	66700	97500	ug/kg	38		40

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	52		65		40-140

INORGANICS
&
MISCELLANEOUS

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-01
Client ID: RC-WC-111213-01
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:02
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	52.1		%	0.100	NA	1	-	11/14/13 02:03	30,2540G	RT

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-02
Client ID: RC-WC-111213-02
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:04
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	51.8		%	0.100	NA	1	-	11/14/13 02:03	30,2540G	RT

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-03
Client ID: RC-WC-111213-03
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:06
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	48.8		%	0.100	NA	1	-	11/14/13 02:03	30,2540G	RT

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-04
Client ID: RC-WC-111213-04
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:08
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	48.1		%	0.100	NA	1	-	11/14/13 02:03	30,2540G	RT

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-05
Client ID: RC-WC-111213-05
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:10
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	52.8		%	0.100	NA	1	-	11/14/13 02:03	30,2540G	RT

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-06
Client ID: RC-WC-111213-06
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:12
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	51.8		%	0.100	NA	1	-	11/14/13 02:03	30,2540G	RT

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-07
Client ID: RC-WC-111213-07
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:14
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	53.1		%	0.100	NA	1	-	11/14/13 02:03	30,2540G	RT

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

SAMPLE RESULTS

Lab ID: L1323043-08
Client ID: RC-WC-111213-08
Sample Location: DEVENS
Matrix: Soil

Date Collected: 11/12/13 12:16
Date Received: 11/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	48.7		%	0.100	NA	1	-	11/14/13 02:03	30,2540G	RT

Lab Duplicate Analysis
Batch Quality Control

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG651596-1 QC Sample: L1323043-01 Client ID: RC-WC-111213-01						
Solids, Total	52.1	46.6	%	11		20

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1323043-01A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260H(14)
L1323043-01B	Vial Large Septa unpreserved	A	N/A	3.3	Y	Absent	8260H(14)
L1323043-01C	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),TS(7),TPH-DRO-D(14)
L1323043-02A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260H(14)
L1323043-02B	Vial Large Septa unpreserved	A	N/A	3.3	Y	Absent	8260H(14)
L1323043-02C	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),TS(7),TPH-DRO-D(14)
L1323043-03A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260H(14)
L1323043-03B	Vial Large Septa unpreserved	A	N/A	3.3	Y	Absent	8260H(14)
L1323043-03C	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),TS(7),TPH-DRO-D(14)
L1323043-04A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260H(14)
L1323043-04B	Vial Large Septa unpreserved	A	N/A	3.3	Y	Absent	8260H(14)
L1323043-04C	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),TS(7),TPH-DRO-D(14)
L1323043-05A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260H(14)
L1323043-05B	Vial Large Septa unpreserved	A	N/A	3.3	Y	Absent	8260H(14)
L1323043-05C	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),TS(7),TPH-DRO-D(14)
L1323043-06A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260H(14)
L1323043-06B	Vial Large Septa unpreserved	A	N/A	3.3	Y	Absent	8260H(14)
L1323043-06C	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),TS(7),TPH-DRO-D(14)
L1323043-07A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260H(14)
L1323043-07B	Vial Large Septa unpreserved	A	N/A	3.3	Y	Absent	8260H(14)
L1323043-07C	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),TS(7),TPH-DRO-D(14)
L1323043-08A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	8260H(14)
L1323043-08B	Vial Large Septa unpreserved	A	N/A	3.3	Y	Absent	8260H(14)

*Values in parentheses indicate holding time in days

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323043
Report Date: 11/15/13

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1323043-08C	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	8270TCL(14),TS(7),TPH-DRO-D(14)

*Values in parentheses indicate holding time in days

Project Name:	AC001.005	**Lab Number:**	L1323043
Project Number:	AC001.005	**Report Date:**	11/15/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The lower value for the two columns has been reported due to obvious interference.

Report Format: Data Usability Report

Project Name:	AC001.005	**Lab Number:**	L1323043
Project Number:	AC001.005	**Report Date:**	11/15/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	AC001.005	**Lab Number:**	L1323043
Project Number:	AC001.005	**Report Date:**	11/15/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised November 12, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease. **EPA 9060** in a soil matrix.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 11/13/13

ALPHA Job #: L1323043

ALPHA ANALYTICAL
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way Ste 307, Holyoke, MA 01040
Phone: 413-540-0650
Email: RLeary@sovcon.com

Additional Project Information:

Project Information

Project Name: AC001.005
Project Location: Devens
Project #: AC001.005
Project Manager: R. Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 24 hr

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	8270, TCLP, TPH	TCLP VOC	8260H	Sample Comments
23045 1	RC-WC-111213-01	11/12/13	12:02	Sed	WJB	X	X	X	run TCLP only if >20x rule for all
2	RC-WC-111213-02		12:04			X	X	X	
3	RC-WC-111213-03		12:06			X	X	X	
4	RC-WC-111213-04		12:08			X	X	X	
5	RC-WC-111213-05		12:10			X	X	X	
6	RC-WC-111213-06		12:12			X	X	X	
7	RC-WC-111213-07		12:14			X	X	X	
8	RC-WC-111213-08		12:16			X	X	X	
	Container Type					A	A	V	
	Preservative					A	A	F	

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

TOTAL # BOTTLES

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
	11/13/13		11-13-13 11:57
	11-13-13 17:45		11/13/13 1745

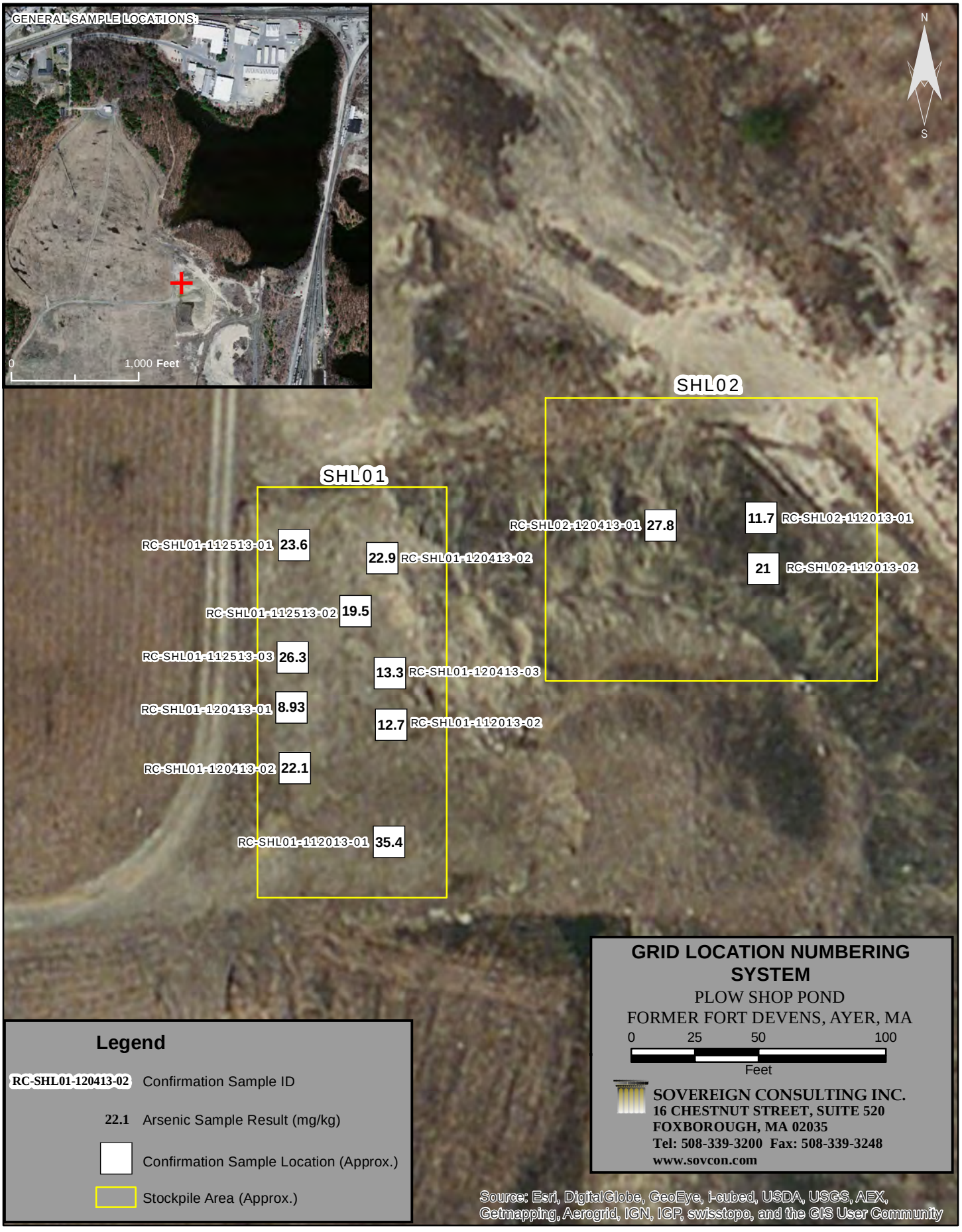
All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

APPENDIX G

Staging Area Analytical Data

(See CD Included Separately)



10/18/2013 ROV
04/09/2014 ROV

ANALYTICAL REPORT

Lab Number:	L1323703
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	AC001.005
Project Number:	AC001.005
Report Date:	11/25/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323703
Report Date: 11/25/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1323703-01	RC-SHL01-112013-01	DEVENS	11/20/13 12:40
L1323703-02	RC-SHL01-112013-02	DEVENS	11/20/13 13:00
L1323703-03	RC-SHL02-112013-01	DEVENS	11/20/13 13:10
L1323703-04	RC-SHL02-112013-02	DEVENS	11/20/13 13:20

Project Name: AC001.005 **Lab Number:** L1323703
Project Number: AC001.005 **Report Date:** 11/25/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	AC001.005	**Lab Number:**	L1323703
Project Number:	AC001.005	**Report Date:**	11/25/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

L1323703-01 through -04: The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1323703-01 through -04: The initial calibration blank and continuing calibration blank have concentrations above the LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 11/25/13

METALS

Project Name: AC001.005 **Lab Number:** L1323703

Project Number: AC001.005 **Report Date:** 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-01 Date Collected: 11/20/13 12:40

Client ID: RC-SHL01-112013-01 Date Received: 11/21/13

Sample Location: DEVENS Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	35.4	Q	mg/kg	0.036	0.004	2	11/22/13 19:20	11/25/13 10:29	EPA 3050B	1,6020A	PD

Project Name: AC001.005 **Lab Number:** L1323703

Project Number: AC001.005 **Report Date:** 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-02 Date Collected: 11/20/13 13:00

Client ID: RC-SHL01-112013-02 Date Received: 11/21/13

Sample Location: DEVENS Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	22.1	Q	mg/kg	0.032	0.004	2	11/22/13 19:20	11/25/13 10:35	EPA 3050B	1,6020A	PD

Project Name: AC001.005 **Lab Number:** L1323703

Project Number: AC001.005 **Report Date:** 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-03 Date Collected: 11/20/13 13:10

Client ID: RC-SHL02-112013-01 Date Received: 11/21/13

Sample Location: DEVENS Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	11.7	Q	mg/kg	0.032	0.004	2	11/22/13 19:20	11/25/13 10:35	EPA 3050B	1,6020A	PD

Project Name: AC001.005 **Lab Number:** L1323703

Project Number: AC001.005 **Report Date:** 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-04 Date Collected: 11/20/13 13:20

Client ID: RC-SHL02-112013-02 Date Received: 11/21/13

Sample Location: DEVENS Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	21.0	Q	mg/kg	0.032	0.004	2	11/22/13 19:20	11/25/13 10:36	EPA 3050B	1,6020A	PD

Project Name: AC001.005 **Lab Number:** L1323703

Project Number: AC001.005 **Report Date:** 11/25/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04 Batch: WG653977-1										
Arsenic, Total	ND		mg/kg	0.050	0.006	2	11/22/13 19:20	11/25/13 10:27	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1323703

Report Date: 11/25/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG653977-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	105		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323703
Report Date: 11/25/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG653977-4 WG653977-5 QC Sample: L1323703-01 Client ID: RC-SHL01-112013-01												
Arsenic, Total	35.4	71.9	111	105		118	116		80-120	6		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323703
Report Date: 11/25/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG653977-3 QC Sample: L1323703-01 Client ID: RC-SHL01-112013-01						
Arsenic, Total	35.4	38.8	mg/kg	9		20

INORGANICS
&
MISCELLANEOUS

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323703
Report Date: 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-01
Client ID: RC-SHL01-112013-01
Sample Location: DEVENS
Matrix: Sediment

Date Collected: 11/20/13 12:40
Date Received: 11/21/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	89.1		%	0.100	0.100	1	-	11/22/13 11:50	30,2540G	EA

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323703
Report Date: 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-02
Client ID: RC-SHL01-112013-02
Sample Location: DEVENS
Matrix: Sediment

Date Collected: 11/20/13 13:00
Date Received: 11/21/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	81.4		%	0.100	0.100	1	-	11/22/13 11:50	30,2540G	EA

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323703
Report Date: 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-03
Client ID: RC-SHL02-112013-01
Sample Location: DEVENS
Matrix: Sediment

Date Collected: 11/20/13 13:10
Date Received: 11/21/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	95.8		%	0.100	0.100	1	-	11/22/13 11:50	30,2540G	EA

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323703
Report Date: 11/25/13

SAMPLE RESULTS

Lab ID: L1323703-04
Client ID: RC-SHL02-112013-02
Sample Location: DEVENS
Matrix: Sediment

Date Collected: 11/20/13 13:20
Date Received: 11/21/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	94.5		%	0.100	0.100	1	-	11/22/13 11:50	30,2540G	EA

Lab Duplicate Analysis
Batch Quality Control

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323703
Report Date: 11/25/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG653856-1 QC Sample: L1323703-01 Client ID: RC-SHL01-112013-01						
Solids, Total	89.1	86.6	%	3		10

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1323703
Report Date: 11/25/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1323703-01A	Amber 250ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1323703-02A	Amber 250ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1323703-03A	Amber 250ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1323703-04A	Amber 250ml unpreserved	A	N/A	4.2	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)

Container Comments

L1323703-01A

L1323703-02A

L1323703-03A

L1323703-04A

*Values in parentheses indicate holding time in days

Project Name:	AC001.005	**Lab Number:**	L1323703
Project Number:	AC001.005	**Report Date:**	11/25/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with 'J' Qualifiers

Project Name:	AC001.005	**Lab Number:**	L1323703
Project Number:	AC001.005	**Report Date:**	11/25/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	AC001.005	**Lab Number:**	L1323703
Project Number:	AC001.005	**Report Date:**	11/25/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised November 12, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease. **EPA 9060** in a soil matrix.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab:

ALPHA Job #: L1323703

ALPHA ANALYTICAL
8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way Ste 307
Holyoke, MA 01040
Phone: 413-540-0650
Email: RLeary@sovcon.com

Additional Project Information:

Project Information

Project Name: AC001.005
Project Location: Devens
Project #: AC001.005
Project Manager: R. Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 24 hr

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; Total As 6020

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Total As 6020	Sample Comments	TOTAL # BOTTLES
23703-01	RC-SHL01-112013-01	11/20/13	12:40	S	WJB	X		
-02	RC-SHL01-112013-02	↓	13:00	S	WJB	X		
-03	RC-SHL02-112013-01	↓	13:10	S	WJB	X		
-04	RC-SHL02-112013-02	↓	13:20	S	WJB	X		

Container Type	A
Preservative	A

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	11/20/13	[signature]	11/21/13
[signature]	11/21/13	[signature]	11/21/13 10:00
Rev Lapoe	11/21/13	[signature]	11/21/13 17:00
[signature]	11/22/13 04:00	rec'd Mansfield lab	11/22/13 04:00

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1324166
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	AC001.005
Project Number:	AC001.005
Report Date:	12/02/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1324166
Report Date: 12/02/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1324166-01	RC-SHL01-112513-01	DEVENS	11/25/13 12:30
L1324166-02	RC-SHL01-112513-02	DEVENS	11/25/13 12:40
L1324166-03	RC-SHL01-112513-03	DEVENS	11/25/13 12:50

Project Name:	AC001.005	**Lab Number:**	L1324166
Project Number:	AC001.005	**Report Date:**	12/02/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	AC001.005	**Lab Number:**	L1324166
Project Number:	AC001.005	**Report Date:**	12/02/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

M9 Other: Explain on chromatogram.

Metals

L1324166-01, -02 and -03: The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1324166-01, -02 and -03: The initial calibration blank and continuing calibration blank have concentrations above the LOD for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

The WG655018-3 Laboratory Duplicate RPD, performed on L1324166-01, is outside the acceptance criteria

Project Name:	AC001.005	**Lab Number:**	L1324166
Project Number:	AC001.005	**Report Date:**	12/02/13

Case Narrative (continued)

for arsenic (26%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the Laboratory Duplicate. The parent sample (L1324166-01) should be qualified as "J" for this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 12/02/13

METALS

Project Name: AC001.005 **Lab Number:** L1324166

Project Number: AC001.005 **Report Date:** 12/02/13

SAMPLE RESULTS

Lab ID: L1324166-01 Date Collected: 11/25/13 12:30

Client ID: RC-SHL01-112513-01 Date Received: 11/26/13

Sample Location: DEVENS Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	23.6	Q	mg/kg	0.033	0.004	2	11/27/13 14:40	11/30/13 14:39	EPA 3050B	1,6020A	PD

Project Name: AC001.005 **Lab Number:** L1324166

Project Number: AC001.005 **Report Date:** 12/02/13

SAMPLE RESULTS

Lab ID: L1324166-02 Date Collected: 11/25/13 12:40

Client ID: RC-SHL01-112513-02 Date Received: 11/26/13

Sample Location: DEVENS Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	19.5	Q	mg/kg	0.033	0.004	2	11/27/13 14:40	11/30/13 14:45	EPA 3050B	1,6020A	PD

Project Name: AC001.005 **Lab Number:** L1324166

Project Number: AC001.005 **Report Date:** 12/02/13

SAMPLE RESULTS

Lab ID: L1324166-03 Date Collected: 11/25/13 12:50

Client ID: RC-SHL01-112513-03 Date Received: 11/26/13

Sample Location: DEVENS Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	26.3	Q	mg/kg	0.031	0.004	2	11/27/13 14:40	11/30/13 14:46	EPA 3050B	1,6020A	PD

Project Name: AC001.005 **Lab Number:** L1324166

Project Number: AC001.005 **Report Date:** 12/02/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG655018-1										
Arsenic, Total	0.016	J	mg/kg	0.050	0.006	2	11/27/13 14:40	11/30/13 14:38	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: AC001.005

Project Number: AC001.005

Lab Number: L1324166

Report Date: 12/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG655018-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	108		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1324166
Report Date: 12/02/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG655018-4 WG655018-5 QC Sample: L1324166-01 Client ID: RC-SHL01-112513-01												
Arsenic, Total	23.6	66.1	93.9	106		90.7	101		80-120	3		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1324166
Report Date: 12/02/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG655018-3 QC Sample: L1324166-01 Client ID: RC-SHL01-112513-01						
Arsenic, Total	23.6	18.1	mg/kg	**26**	Q	20

INORGANICS
&
MISCELLANEOUS

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1324166
Report Date: 12/02/13

SAMPLE RESULTS

Lab ID: L1324166-01
Client ID: RC-SHL01-112513-01
Sample Location: DEVENS
Matrix: Sediment

Date Collected: 11/25/13 12:30
Date Received: 11/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	92.8		%	0.100	0.100	1	-	11/27/13 13:00	30,2540G	EA

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1324166
Report Date: 12/02/13

SAMPLE RESULTS

Lab ID: L1324166-02
Client ID: RC-SHL01-112513-02
Sample Location: DEVENS
Matrix: Sediment

Date Collected: 11/25/13 12:40
Date Received: 11/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	89.8		%	0.100	0.100	1	-	11/27/13 13:00	30,2540G	EA

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1324166
Report Date: 12/02/13

SAMPLE RESULTS

Lab ID: L1324166-03
Client ID: RC-SHL01-112513-03
Sample Location: DEVENS
Matrix: Sediment

Date Collected: 11/25/13 12:50
Date Received: 11/26/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	92.0		%	0.100	0.100	1	-	11/27/13 13:00	30,2540G	EA

Lab Duplicate Analysis
Batch Quality Control

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1324166
Report Date: 12/02/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG654967-1 QC Sample: L1324166-01 Client ID: RC-SHL01-112513-01						
Solids, Total	92.8	92.6	%	0		10

Project Name: AC001.005
Project Number: AC001.005

Lab Number: L1324166
Report Date: 12/02/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1324166-01A	Amber 250ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1324166-02A	Amber 250ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1324166-03A	Amber 250ml unpreserved	A	N/A	3.6	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	AC001.005	**Lab Number:**	L1324166
Project Number:	AC001.005	**Report Date:**	12/02/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with 'J' Qualifiers

Project Name:	AC001.005	**Lab Number:**	L1324166
Project Number:	AC001.005	**Report Date:**	12/02/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	AC001.005	**Lab Number:**	L1324166
Project Number:	AC001.005	**Report Date:**	12/02/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Certificate/Approval Program Summary

Last revised November 12, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease. **EPA 9060** in a soil matrix.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab:

ALPHA Job #: L1324166

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: AC001.005
Project Location: Devens
Project #: AC001.005
Project Manager: R. Leary
ALPHA Quote #:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Client Information

Client: Sovereign Consulting Inc.
Address: 4 Open Square Way Ste 307
Holyoke, MA 01040
Phone: 413-540-0650
Email: RLeary@soveon.com

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 24 hr

Additional Project Information:

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ANALYSIS

VOC: ☐ 8260 ☐ 624 ☐ 524.2
SVOC: ☐ ABN ☐ PAH
METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15
METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13
EPH: ☐ Ranges & Targets ☐ Ranges Only
VPH: ☐ Ranges & Targets ☐ Ranges Only
☐ PCB ☐ PEST
TPH: ☐ Quant Only ☐ Fingerprint
Total As 6020

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

Sample Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials																				
24166 01	RC-SHL01-112513-01	11/25/13	12:30	S	WJB									X											
02	RC-SHL01-112513-02	↓	12:40	S	WJB									X											
↓ 03	RC-SHL01-11293-03	↓	12:50	S	WJB									X											

ANALYTICAL REPORT

Lab Number:	L1324657
Client:	Sovereign Consulting - HGL Devens 313 Ushers Road Ballston, NY 12019
ATTN:	Denise Rivers
Phone:	(518) 877-0390
Project Name:	DEVENS
Project Number:	AC001.005
Report Date:	12/09/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1324657-01	RC-SHL01-120413-01	DEVENS, MA	12/04/13 13:00
L1324657-02	RC-SHL02-120413-01	DEVENS, MA	12/04/13 13:30
L1324657-03	RC-SHL02-120413-02	DEVENS, MA	12/04/13 13:35
L1324657-04	RC-SHL02-120413-03	DEVENS, MA	12/04/13 13:40
L1324657-05	RC-SHL02-120413-04	DEVENS, MA	12/04/13 15:00

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DEVENS	**Lab Number:**	L1324657
Project Number:	AC001.005	**Report Date:**	12/09/13

Case Narrative (continued)

Report Submission

Testing performed for the reported analyses followed the guidelines established under the DoD QSM 4.2, where applicable.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Note: When manual integrations are performed, they are assigned one of the following codes, and can be found on the raw data provided within the data deliverable package.

Manual Integration Codes

M1 Split or tailing peak, auto integration stopped early resulting in false low area count.

M2 Peak not found by automatic integration algorithm.

M3 Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

M4 Poor automated baseline construction.

M5 Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

M6 Misassignment of peak valley by automated integration (poor split of 2 peaks).

M7 A qualifier ion was manually integrated (only for GC/MS data).

M8 Integration of individual analyte eluting on top of an unresolved complex.

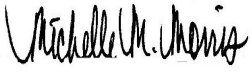
M9 Other: Explain on chromatogram.

Total Metals

L1324657-01 through -05: The concentration of the ICSA was above the LOD for arsenic. All associated samples have been qualified with a "Q".

L1324657-01 through -05: The continuing calibration blanks have concentrations above the reporting limit for arsenic. Since the samples were >10x the reporting limit for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 12/09/13

METALS

Project Name: DEVENS
Lab Number: L1324657
Project Number: AC001.005
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-01
Client ID: RC-SHL01-120413-01
Sample Location: DEVENS, MA
Matrix: Soil
Percent Solids: 89%

Date Collected: 12/04/13 13:00
Date Received: 12/05/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	27.8	Q	mg/kg	0.033	0.004	2	12/06/13 11:30	12/08/13 10:50	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1324657
Project Number: AC001.005
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-02
Client ID: RC-SHL02-120413-01
Sample Location: DEVENS, MA
Matrix: Soil
Percent Solids: 93%

Date Collected: 12/04/13 13:30
Date Received: 12/05/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	8.93	Q	mg/kg	0.032	0.004	2	12/06/13 11:30	12/08/13 10:56	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-03
Client ID: RC-SHL02-120413-02
Sample Location: DEVENS, MA
Matrix: Soil
Percent Solids: 99%

Date Collected: 12/04/13 13:35
Date Received: 12/05/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	22.9	Q	mg/kg	0.030	0.004	2	12/06/13 11:30	12/08/13 10:57	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1324657
Project Number: AC001.005
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-04
Client ID: RC-SHL02-120413-03
Sample Location: DEVENS, MA
Matrix: Soil
Percent Solids: 94%

Date Collected: 12/04/13 13:40
Date Received: 12/05/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	13.3	Q	mg/kg	0.030	0.004	2	12/06/13 11:30	12/08/13 10:58	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Lab Number: L1324657
Project Number: AC001.005
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-05
Client ID: RC-SHL02-120413-04
Sample Location: DEVENS, MA
Matrix: Soil
Percent Solids: 95%

Date Collected: 12/04/13 15:00
Date Received: 12/05/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	12.7	Q	mg/kg	0.030	0.004	2	12/06/13 11:30	12/08/13 10:59	EPA 3050B	1,6020A	PD

Project Name: DEVENS
Project Number: AC001.005
Lab Number: L1324657
Report Date: 12/09/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG656789-1										
Arsenic, Total	0.019	J	mg/kg	0.050	0.006	2	12/06/13 11:30	12/08/13 10:48	1,6020A	PD

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: DEVENS

Project Number: AC001.005

Lab Number: L1324657

Report Date: 12/09/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG656789-2 SRM Lot Number: A2METSPIKE								
Arsenic, Total	102		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG656789-4 WG656789-5 QC Sample: L1324657-01 Client ID: RC-SHL01-120413-01												
Arsenic, Total	27.8	66.6	95.2	101		99.3	107		80-120	4		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG656789-3 QC Sample: L1324657-01 Client ID: RC-SHL01-120413-01						
Arsenic, Total	27.8	29.2	mg/kg	5		20

INORGANICS
&
MISCELLANEOUS

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-01
Client ID: RC-SHL01-120413-01
Sample Location: DEVENS, MA
Matrix: Soil

Date Collected: 12/04/13 13:00
Date Received: 12/05/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	88.8		%	0.100	0.100	1	-	12/06/13 13:00	30,2540G	EA

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-02
Client ID: RC-SHL02-120413-01
Sample Location: DEVENS, MA
Matrix: Soil

Date Collected: 12/04/13 13:30
Date Received: 12/05/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	93.2		%	0.100	0.100	1	-	12/06/13 13:00	30,2540G	EA

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-03
Client ID: RC-SHL02-120413-02
Sample Location: DEVENS, MA
Matrix: Soil

Date Collected: 12/04/13 13:35
Date Received: 12/05/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	98.7		%	0.100	0.100	1	-	12/06/13 13:00	30,2540G	EA

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-04
Client ID: RC-SHL02-120413-03
Sample Location: DEVENS, MA
Matrix: Soil

Date Collected: 12/04/13 13:40
Date Received: 12/05/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	94.3		%	0.100	0.100	1	-	12/06/13 13:00	30,2540G	EA

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

SAMPLE RESULTS

Lab ID: L1324657-05
Client ID: RC-SHL02-120413-04
Sample Location: DEVENS, MA
Matrix: Soil

Date Collected: 12/04/13 15:00
Date Received: 12/05/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	95.1		%	0.100	0.100	1	-	12/06/13 13:00	30,2540G	EA

Lab Duplicate Analysis
Batch Quality Control

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG656827-1 QC Sample: L1324657-01 Client ID: RC-SHL01-120413-01						
Solids, Total	88.8	89.2	%	0		10

Project Name: DEVENS
Project Number: AC001.005

Lab Number: L1324657
Report Date: 12/09/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1324657-01A	Amber 120ml unpreserved	A	N/A	4.1	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1324657-02A	Amber 120ml unpreserved	A	N/A	4.1	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1324657-03A	Amber 120ml unpreserved	A	N/A	4.1	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1324657-04A	Amber 120ml unpreserved	A	N/A	4.1	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)
L1324657-05A	Amber 120ml unpreserved	A	N/A	4.1	Y	Absent	A2-TS(7),A2-DOD-AS-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	DEVENS	**Lab Number:**	L1324657
Project Number:	AC001.005	**Report Date:**	12/09/13

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with 'J' Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1324657
Project Number:	AC001.005	**Report Date:**	12/09/13

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	DEVENS	**Lab Number:**	L1324657
Project Number:	AC001.005	**Report Date:**	12/09/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

The analyses performed on the sample(s) within this report are in accordance with the minimum established guidelines set forth in the Department of Defense Quality Systems Manual, Version 4.2, issued October 25, 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised November 12, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. ***NELAP Accredited.***
Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease. **EPA 9060** in a soil matrix.

Certificate/Approval Program Summary

Last revised October 1, 2013 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060, 9060A. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D, 9060A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL
World Class Chemistry

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Date Rec'd in Lab: 12/5/13

ALPHA Job #: L1324657

Client Information

Client: Sovereign Consulting Inc.

Address: 40 Open Square Way Ste 307
Holyoke, MA 01040

Phone: 413-540-0650

Email: RLeary@sovcon.com

Project Information

Project Name: Devens

Project Location: Devens, MA

Project #: RC0001-005

Project Manager: R. Leary

ALPHA Quote #:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 24 hr 12/6/13

Additional Project Information:

ANALYSIS

VOC: ☐ 8260 ☐ 624 ☐ 524.2
SVOC: ☐ ABN ☐ PAH
METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15
METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13
EPH: ☐ Ranges & Targets ☐ Ranges Only
VPH: ☐ Ranges & Targets ☐ Ranges Only
☐ PCB ☐ PEST
TPH: ☐ Quant Only ☐ Fingerprint
Total As 6020

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Total As 6020	Sample Comments	TOTAL # BOTTLES
24657-01	RC-SHL01-120413-01	12/4/13	13:00	Soil	WJB	X		
02	RC-SHL02-120413-01		13:30			X		
03	RC-SHL02-120413-02		13:35			X		
04	RC-SHL02-120413-03		13:40			X		
05	RC-SHL02-120413-04		15:00			X		
						Container Type		A
						Preservative		A

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
	12/5/13 11:10		12/5/13 1110
	12/5/13 1300		12/5/13 1300

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 12/5/13

ALPHA Job #: L1324652

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: Sovereign Consulting Inc.
Address: 40 Open Square Way Ste 307
Holyoke, MA 01040
Phone: 413-540-0650
Email: RLeary@sovcon.com

Additional Project Information:

Project Information

Project Name: Devens
Project Location: Devens, MA
Project #: RC0001.005
Project Manager: R. Leary
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 24 hr 12/6/13

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ANALYSIS

VOC: ☐ 8260 ☐ 624 ☐ 524.2
SVOC: ☐ ABN ☐ PAH
METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15
METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13
EPH: ☐ Ranges & Targets ☐ Ranges Only
VPH: ☐ Ranges & Targets ☐ Ranges Only
☐ PCB ☐ PEST
TPH: ☐ Quant Only ☐ Fingerprint
Total As 6020

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

Sample Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	TOTAL # BOTTLES
24657-01	RC-SHL01-120413-01	12/4/13	13:00	Soil	WJB	X
02	RC-SHL02-120413-01		13:30			X
03	RC-SHL02-120413-02		13:35			X
04	RC-SHL02-120413-03		13:40			X
05	RC-SHL02-120413-04		15:00			

Container Type	A
Preservative	A

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
	12/5/13 11:10		12/5/13 11:10
	12/5/13 1300		12/5/13 1300
	12-5-13 1320		12/5/13 1325
	12/5/13 14:15		12/5/13 14:15

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

APPENDIX H

Bill of Ladings

(See CD Included Separately)

LL21

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

491491NH

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number ☐ - ☐

SUMMARY SHEET _____ OF _____

I. LOAD INFORMATION:

Load 1:
Signatiure of Transporter Representative:
Date of Shipment: 13/13
Time of Shipment: ☑ AM ☐ PM
Truck/Tractor Registration: 72079
Trailer Registration (if any): 64
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 11/13/13
Time of Receipt: ☑ AM ☐ PM
Load Size (cu. yds./tons): 31.59

Load 2:
Signatiure of Transporter Representative:
Date of Shipment: 13/13
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration: 72079
Trailer Registration (if any): 64
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 3:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration: 72079
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signatiure of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH 03839
Ph: (800) 963-4776

Original
Ticket# 902407

Customer Name WLFRENCHEXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/13/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

	Time	Scale	Operator	Inbound	Gross	94360 lb
In	11/13/2013 12:26:42	scale 1 inbou	phil boisvert		Tare	36180 lb
Out	11/13/2013 13:01:28	scale 2 outbo	eric metzler		Net	58180 lb
					Tons	29.09

Comments

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	29.09	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL21

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-012B

491491NH

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number ☐ - ☐

SUMMARY SHEET _____ **OF** _____

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative:
Date of Shipment: 13/13
Time of Shipment: ☑ AM ☐ PM
Truck/Tractor Registration: 72079
Trailer Registration (if any): 64
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 11/13/13
Time of Receipt: ☑ AM ☐ PM
Load Size (cu. yds./tons): 0

Load 2:
Signature of Transporter Representative:
Date of Shipment: 13/13
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration: 72079
Trailer Registration (if any): 64
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 11/13/13
Time of Receipt: ☐ AM ☑ PM
Load Size (cu. yds./tons): 0

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration: 72079
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902317

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 22 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/13/2013 08:21:03	scale 1 inbou	phil boisvert		Gross	96060 lb
Out	11/13/2013 08:47:52	scale 2 outbo	eric metzler		Tare	35720 lb
					Net	60340 lb
					Tons	30.17

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.17	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL22

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/13/13
Date received

Time received

11/13/13
Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

30.17
Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/13/13
Date received

Time received

Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902408

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 22 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	99800 lb
In	11/13/2013 12:36:48	scale 1 inbou	phil boisvert		Tare	34960 lb
Out	11/13/2013 13:07:03	scale 2 outbo	eric metzler		Net	64840 lb
					Tons	32.42

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.42	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL22

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/13/13
Date received

Time received

11/13/13
Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/13/13
Date received

Time received

11/13/13
Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

Load size (cubic yards/tons) 32.42

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902301

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier MTC
Vehicle# 10
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/13/2013 07:52:57	scale 1 inbou	phil boisvert		Gross	99180 lb
Out	11/13/2013 08:17:31	scale 2 outbo	eric metzler		Tare	36200 lb
					Net	62980 lb
					Tons	31.49

Comments

WM WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.49	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

10

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MTC 10

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/13/13 | Time received

Date of shipment: 11/13/13 | Time of shipment: AM

Truck/Tractor registration: FATCAT

Trailer registration

Load size (cubic yards/tons): 31,49

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/13/13 | Time received

Date of shipment | Time of shipment

Truck/Tractor registration: FAT CAT

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Ticket# 902401

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier MTC
Vehicle# 10 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	93960 lb
In	11/13/2013 12:08:00	scale 1 inbou	phil boisvert		Tare	35880 lb
Out	11/13/2013 12:37:00	scale 2 outbo	eric metzler		Net	58080 lb
					Tons	29.04

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	29.04	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

10

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MTC 10

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter | Receiving facility

11/13/13 | Time received | 11/13/13 Date of shipment | AM Time of shipment

Truck/Tractor registration | Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter | Receiving facility

11/13/13 Date received | Time received | 11/13/13 Date of shipment | PM Time of shipment

Truck/Tractor registration | Trailer registration

Load size (cubic yards/tons) 2904

Load#: _____

Signature of transporter | Receiving facility

Date received | Time received | Date of shipment | Time of shipment

Truck/Tractor registration | Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Turnkey Landfill

Ticket# 902312

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 87
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		Volume
In	11/13/2013 08:13:38	scale 1 inbou	phil boisvert		Gross	99400 lb
Out	11/13/2013 08:55:37	scale 2 outbo	eric metzler		Tare	35420 lb
					Net	63980 lb
					Tons	31.99

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	31.99	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

87

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11-13-13 | Time received

Date of shipment: 11/13/13 | Time of shipment

Truck/Tractor registration: P4808

Trailer registration: S8099

Load size (cubic yards/tons): 31.99

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902409

Customer Name	WLFRENCHEXCAV-491491NH WL Fre	Carrier	WL FRENCH WL FRENCH
Ticket Date	11/13/2013	Vehicle#	87 Volume
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0113251
State Waste Code		Gen EPA ID	NOT REQUIRED
Manifest	na	PO	
Destination		Profile	491491NH (CONTAMINATED SOIL (DISPO
Generator	NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED		

	Time	Scale	Operator	Inbound		
In	11/13/2013 12:40:27	scale 1 inbou	phil boisvert		Gross	97980 lb
Out	11/13/2013 13:22:34	scale 2 outbo	eric metzler		Tare	35140 lb
					Net	62840 lb
					Tons	31.42

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.42	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

87

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11-13-13 | Time received

Date of shipment: 11/13/13 | Time of shipment

Truck/Tractor registration: 84808

Trailer registration: 88099

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

Date received: 11-13-13 | Time received

Date of shipment: 11/13/13 | Time of shipment

Truck/Tractor registration: 84808

Trailer registration: 88099

Load size (cubic yards/tons): 31+0

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Page _____ of _____

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902309

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 93 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/13/2013 08:02:38	scale 1 inbou	phil boisvert		Gross	98720 lb
Out	11/13/2013 08:38:15	scale 2 outbo	eric metzler		Tare	36480 lb
					Net	62240 lb
					Tons	31.12

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.12	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

WL 93

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 10/15/13 | Time received

Date of shipment: 10/15/13 | Time of shipment

Truck/Tractor registration: 88049

Trailer registration: T55

Load size (cubic yards/tons): 31.12

Load#: 4

Signature of transporter

Receiving facility

Date received: 10/15/13 | Time received

Date of shipment | Time of shipment

Truck/Tractor registration: 88049

Trailer registration: T55

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902406

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 93 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/13/2013 12:21:40	scale 1 inbou	phil boisvert		Gross	102020 lb
Out	11/13/2013 13:21:09	scale 2 outbo	eric metzler		Tare	36240 lb
					Net	65780 lb
					Tons	32.89

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	32.89	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

WL 93

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/13/13
Date received

Time received

11/13/13
Date of shipment

Time of shipment

88079
Truck/Tractor registration

T55
Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/13/13
Date received

Time received

11/13/13
Date of shipment

Time of shipment

88079
Truck/Tractor registration

32.89

T55
Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902302

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 95 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/13/2013 07:54:14	scale 1 inbou	phil boisvert		Gross	98640 lb
Out	11/13/2013 08:23:45	scale 2 outbo	eric metzler		Tare	37520 lb
					Net	61120 lb
					Tons	30.56

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	30.56	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

111-111

Wh 95

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

R B Whitte
Signature of transporter

Receiving facility

11/13/13
Date received

Time received 9AM

11/13/13
Date of shipment

9AM
Time of shipment

85808
Truck/Tractor registration

T-45
Trailer registration

30.56
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902400

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 95 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	99380 lb
In	11/13/2013 12:04:58	scale 1 inbou	phil boisvert		Tare	37480 lb
Out	11/13/2013 13:04:39	scale 2 outbo	eric metzler		Net	61900 lb
					Tons	30.95

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.95	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

111 HH

Wk 95

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/13/13 | Time received: AM | Date of shipment: 11/13/13 | Time of shipment: AM

Truck/Tractor registration: 85808 | Trailer registration: T-45

Load size (cubic yards/tons): 30

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/13/13 | Time received: AM | Date of shipment: 11/13/13 | Time of shipment: PM

Truck/Tractor registration: 85808 | Trailer registration: T-45

Load size (cubic yards/tons): 30.95

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received | Date of shipment | Time of shipment

Truck/Tractor registration | Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902570

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier AXL AXL
Vehicle# 17
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/14/2013 08:54:23	scale 1 inbou	phil boisvert		Gross	92400 lb
Out	11/14/2013 09:34:09	scale 2 outbo	eric metzler		Tare	37060 lb
					Net	55340 lb
					Tons	27.67

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	27.67	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Signature

D:405WM-Gonic

AXL 17

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

AXL
Signature of transporter

Turkey Landfill
Receiving facility

11/14/13
Date received

7:00 AM
Time received

11/14/13
Date of shipment

7:00 AM
Time of shipment

AXL 17
Truck/Tractor registration

AXL 17
Trailer registration

27.67
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902670

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier AXL AXL
Vehicle# 17 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/14/2013 13:26:27	scale 1 inbou	phil boisvert		Gross	31880 lb
Out	11/14/2013 14:07:00	scale 2 outbo	eric metzler		Tare	36700 lb
					Net	55180 lb
					Tons	27.59

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	27.59	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

AXL 17

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

AXL
Signature of transporter

11/14/13
Date received

7:00 Am
Time received

AXL 17
Truck/Tractor registration

Load size (cubic yards/tons)

Turkey Landfill
Receiving facility

11/14/13
Date of shipment

7:00 Am
Time of shipment

AXL 17
Trailer registration

Load#: 2

AXL
Signature of transporter

11/14/13
Date received

11:30 Am
Time received

AXL 17
Truck/Tractor registration

27.59
Load size (cubic yards/tons)

Turkey Landfill
Receiving facility

11/14/13
Date of shipment

11:30 Am
Time of shipment

AXL 17
Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902569

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier EMERSON
Vehicle# BLACK
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator
In	11/14/2013 08:52:24	scale 1 inbou	phil boisvert
Out	11/14/2013 09:27:19	scale 2 outbo	eric metzler

Inbound

Gross	98180 lb
Tare	40660 lb
Net	57520 lb
Tons	28.76

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons 100		28.76	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver Signature

405WM-Gonic

Emerson

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Jerry Emerson AXL
Signature of transporter

Turnkey Land Fill
Receiving facility

11 14 13
Date received

6:45 AM
Time received

11 14 13
Date of shipment

Time of shipment

7243 AR NH.
Truck/Tractor registration

1781102 me
Trailer registration

28.76
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902658

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier EMERSON
Vehicle# BLACK
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/14/2013 13:25:37	scale 1 inbou	phil boisvert		Gross	92440 lb
Out	11/14/2013 14:03:01	scale 2 outbo	eric metzler		Tare	40320 lb
					Net	52120 lb
					Tons	26.06

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	26.06	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

Emerson

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Jerry Emerson AXL
Signature of transporter

Turnkey Land fill
Receiving facility

11 14 13 — Date received
6:45 AM — Time received
11 14 13 — Date of shipment
Time of shipment

7243 AR NH.
Truck/Tractor registration

1781102 me
Trailer registration

Load size (cubic yards/tons)

Load#: 2

Jerry Emerson AXL
Signature of transporter

Turnkey Land fill
Receiving facility

11 14 13 — Date received
11:15 Am — Time received
11 14 13 — Date of shipment
Time of shipment

7243 AR NH.
Truck/Tractor registration

1781102 me
Trailer registration

Load size (cubic yards/tons) 26.06

Load#: _____

Signature of transporter

Receiving facility

Date received — Time received

Date of shipment — Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902551

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 21
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/14/2013 08:04:06	scale 1 inbou	phil boisvert		Gross	93000 lb
Out	11/14/2013 08:34:40	scale 2 outbo	eric metzler		Tare	36380 lb
					Net	56620 lb
					Tons	28.31

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	28.31	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL21

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received 14/13 Time received

Date of shipment 1/14/13 Time of shipment

Truck/Tractor registration 72079

Trailer registration 64

Load size (cubic yards/tons) 28.31

Load#: 2

Signature of transporter

Receiving facility

Date received 14/13 Time received

Date of shipment Time of shipment

Truck/Tractor registration 72079

Trailer registration 64

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received Time received

Date of shipment Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902642

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 21 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/14/2013 12:09:55	scale 1 inbou	phil boisvert		Gross	99380 lb
Out	11/14/2013 12:41:27	scale 2 outbo	eric metzler		Tare	36080 lb
					Net	63300 lb
					Tons	31.65

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.65	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL 21

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received 14/13 Time received

Date of shipment 11/14/13 Time of shipment

Truck/Tractor registration 72079

Trailer registration 64

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

Date received 14/13 Time received

Date of shipment 11/14/13 Time of shipment

Truck/Tractor registration 72079

Trailer registration 64

Load size (cubic yards/tons) 31.65

Load#: _____

Signature of transporter

Receiving facility

Date received Time received

Date of shipment Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

TurnKey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902559

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 22
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/14/2013 08:21:05	scale 1 inbou	phil boisvert		Gross	98660 lb
Out	11/14/2013 09:03:47	scale 2 outbo	eric metzler		Tare	35260 lb
					Net	63400 lb
					Tons	31.70

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.70	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

L&L 22

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/14/13
Date received

Time received

11/14/13
Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

31.70
Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/14/13
Date received

Time received

Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902645

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 22
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator			
In	11/14/2013 12:25:07	scale 1 inbou	phil boisvert	Inbound	Gross	98300 lb
Out	11/14/2013 12:51:10	scale 2 outbo	eric metzler		Tare	34940 lb
					Net	63360 lb
					Tons	31.68

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	31.68	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

L&L 22

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

RC
Signature of transporter

Receiving facility

11/14/13
Date received

Time received

11/14/13
Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

3
Load size (cubic yards/tons)

Load#: 2

RC
Signature of transporter

Receiving facility

11/14/13
Date received

Time received

11/14/13
Date of shipment

Time of shipment

67324
Truck/Tractor registration

31.68
Load size (cubic yards/tons)

62
Trailer registration

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902549

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier MTC
Vehicle# 10
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/14/2013 08:01:21	scale 1 inbou	phil boisvert		Gross	93800 lb
Out	11/14/2013 08:28:55	scale 2 outbo	eric metzler		Tare	35700 lb
					Net	58100 lb
					Tons	29.05

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	29.05	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

10

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MTC10

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/14/13 | Time received: AM

Date of shipment: 11/14/13 | Time of shipment: AM

Truck/Tractor registration: Fatcat

Trailer registration

Load size (cubic yards/tons): 29.05

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/14/13 | Time received:

Date of shipment | Time of shipment

Truck/Tractor registration: Fatcat

Trailer registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902641

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier MTC
Vehicle# 10
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/14/2013 12:06:52	scale 1 inbou	phil boisvert		Gross	98320 lb
Out	11/14/2013 12:39:51	scale 2 outbo	eric metzler		Tare	35760 lb
					Net	62560 lb
					Tons	31.28

Comments

WASTE MANAGEMENT

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.28	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

10

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MTC10

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/14/13 — Date received

4 PM — Time received

11/14/13 — Date of shipment

4 PM — Time of shipment

Fatcat — Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/14/13 — Date received

Time received

11/14/13 — Date of shipment

PM — Time of shipment

Fatcat — Truck/Tractor registration

Trailer registration

31.28 — Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

*Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902556

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 87 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/14/2013 08:16:41	scale 1 inbou	phil boisvert		Gross	100340 lb
Out	11/14/2013 08:53:55	scale 2 outbo	eric metzler		Tare	35400 lb
					Net	64940 lb
					Tons	32.47

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	32.47	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

87

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11-14-13
Date received

Time received

11/14/13
Date of shipment

Time of shipment

84808
Truck/Tractor registration

88099
Trailer registration

32.47
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902650

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 87 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/14/2013 12:41:27	scale 1 inbou	phil boisvert		Gross	98700 lb
Out	11/14/2013 13:23:53	scale 2 outbo	eric metzler		Tare	35120 lb
					Net	63580 lb
					Tons	31.79

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.79	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

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Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11-14-13

Time received

Date of shipment: 11/14/13

Time of shipment

Truck/Tractor registration: 84808

Trailer registration: 88099

Load size (cubic yards/tons): 31.79

Load#: 2

Signature of transporter

Receiving facility

Date received: 11-14-13

Time received

Date of shipment: 11/14/13

Time of shipment

Truck/Tractor registration: 84808

Trailer registration: 88099

Load size (cubic yards/tons): 31.79

Load#:

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902557

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 90 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/14/2013 08:17:45	scale 1 inbou	phil boisvert		Gross	104480 lb
Out	11/14/2013 08:57:23	scale 2 outbo	eric metzler		Tare	36500 lb
					Net	67980 lb
					Tons	33.99

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	33.99	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

90

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

WLF90

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11-14-13
Date received

Time received

11/14/13
Date of shipment

Time of shipment

85529MA
Truck/Tractor registration

T-35

Trailer registration

Load size (cubic yards/tons) 33.99

Load#: 2

Signature of transporter

Receiving facility

11-14-13
Date received

Time received

Date of shipment

Time of shipment

85529MA
Truck/Tractor registration

T-35

Trailer registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Page _____ of _____

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902651

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 90 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/14/2013 12:42:22	scale 1 inbou	phil boisvert		Gross	101140 lb
Out	11/14/2013 13:25:04	scale 2 outbo	eric metzler		Tare	36260 lb
					Net	64880 lb
					Tons	32.44

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.44	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

90

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

WLF90

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11-14-13
Date received

Time received

11/14/13
Date of shipment

Time of shipment

8552 MA
Truck/Tractor registration

T-35
Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11-14-13
Date received

Time received

11/14/13
Date of shipment

Time of shipment

8552 MA
Truck/Tractor registration

T-35
Trailer registration

32.44
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Page _____ of _____

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902558

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 93 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	101120 lb
In	11/14/2013 08:19:46	scale 1 inbou	phil boisvert		Tare	36660 lb
Out	11/14/2013 09:00:39	scale 2 outbo	eric metzler		Net	64460 lb
					Tons	32.23

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.23	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

93

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/14/13 | Time received

Date of shipment: 11/14/13 | Time of shipment

Truck/Tractor registration: 55079

Trailer registration: 1755

Load size (cubic yards/tons): 32.83

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/14/13 | Time received

Date of shipment | Time of shipment

Truck/Tractor registration: 55079

Trailer registration: 1755

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902652

Customer Name	WLFRENCHEXCAV-491491NH WL Fre	Carrier	WL FRENCH WL FRENCH
Ticket Date	11/14/2013	Vehicle#	93
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0113251
State Waste Code		Gen EPA ID	NOT REQUIRED
Manifest	na	PO	
Destination		Profile	491491NH (CONTAMINATED SOIL (DISPO
Generator	NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED		

Volume

	Time	Scale	Operator	Inbound		
In	11/14/2013 12:43:29	scale 1 inbou	phil boisvert		Gross	100840 lb
Out	11/14/2013 13:20:31	scale 2 outbo	eric metzler		Tare	36560 lb
					Net	64280 lb
					Tons	32.14

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.14	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE, THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

93

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons) 32.14

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902083

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier JR JR CONSTRUCTION
Vehicle# 23
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator			Volume
In	11/12/2013 09:08:31	scale 1 inbou	phil boisvert	Inbound	Gross	98180 lb
Out	11/12/2013 09:45:53	scale 2 outbo	eric metzler		Tare	38060 lb
					Net	60120 lb
					Tons	30.06

Comments

WASTE MANAGEMENT

	Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	30.06	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

23

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

JR CONST. #23
Signature of transporter

TURNKEY CF
Receiving facility

11-12-13
Date received

Time received

11-12-13
Date of shipment

Time of shipment

79511
Truck/Tractor registration

172003
Trailer registration

Load size (cubic yards/tons) 8

Load#: 2

J.R. CONST. #23
Signature of transporter

TURNKEY CF
Receiving facility

11-12-13
Date received

Time received

11/12/13
Date of shipment

Time of shipment

79511
Truck/Tractor registration

172003
Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902195

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier JR JR CONSTRUCTION
Vehicle# 23
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound	Gross	99480 lb
In	11/12/2013 13:19:56	scale 1 inbou	PHIL BOISVERT		Tare	37840 lb
Out	11/12/2013 13:55:21	scale 2 outbo	eric metzler		Net	61640 lb
					Tons	30.82

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.82	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

23

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

JR CONST #23
Signature of transporter

TURNKEY cf
Receiving facility

11-12-13
Date received

Time received

11-12-13
Date of shipment

Time of shipment

78511
Truck/Tractor registration

172003
Trailer registration

Load size (cubic yards/tons)

Load#: 2

J.R. CONST. #23
Signature of transporter

TURNKEY cf
Receiving facility

11-12-13
Date received

PM
Time received

11-12-13
Date of shipment

PM
Time of shipment

78511
Truck/Tractor registration

172003
Trailer registration

30.87
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902093

Customer Name WLFRENCHEXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/12/2013 Vehicle# 21 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

	Time	Scale	Operator	Inbound		
In	11/12/2013 09:37:48	scale 1 inbou	phil boisvert		Gross	105260 lb
Out	11/12/2013 10:12:24	scale 2 outbo	eric metzler		Tare	36320 lb
					Net	68940 lb
					Tons	34.47

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	34.47	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL21

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Date received 12/13 Time received AM

Truck/Tractor registration 72079

Load size (cubic yards/tons) 34.47

Receiving facility

Date of shipment 11/12/13 Time of shipment AM

Trailer registration 64

Load#: 2

Signature of transporter

Date received 12/13 Time received

Truck/Tractor registration 72079

Load size (cubic yards/tons)

Receiving facility

Date of shipment 64 Time of shipment

Trailer registration

Load#: _____

Signature of transporter

Date received Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902222

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 21
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/12/2013 14:02:17	scale 1 inbou	PHIL BOISVERT		Gross	100920 lb
Out	11/12/2013 14:36:57	scale 2 outbo	eric metzler		Tare	36000 lb
					Net	64920 lb
					Tons	32.46

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	32.46	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL21

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received 12/13 Time received AM

Date of shipment 11/12/13 Time of shipment AM

Truck/Tractor registration 72079

Trailer registration 64

Load size (cubic yards/tons) 6

Load#: 2

Signature of transporter

Receiving facility

Date received 12/13 Time received PM

Date of shipment 11/12/13 Time of shipment PM

Truck/Tractor registration 72079

Trailer registration 64

Load size (cubic yards/tons) 6 32.46

Load#: _____

Signature of transporter

Receiving facility

Date received Time received

Date of shipment Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902088

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 22
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound	Gross	98020 lb
In	11/12/2013 09:20:49	scale 1 inbou	phil boisvert		Tare	35200 lb
Out	11/12/2013 09:50:10	scale 2 outbo	eric metzler		Net	62820 lb
					Tons	31.41

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.41	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL22

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/12/13 — Date received — AM — Time received

11/12/13 — Date of shipment — AM — Time of shipment

67324 — Truck/Tractor registration

62 — Trailer registration

31.41 — Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/12/13 — Date received — Time received — Date of shipment — Time of shipment

67324 — Truck/Tractor registration

62 — Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received — Time received — Date of shipment — Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902204

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 22
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/12/2013 13:35:22	scale 1 inbou	PHIL BOISVERT		Gross	100620 lb
Out	11/12/2013 14:13:48	scale 2 outbo	eric metzler		Tare	34900 lb
					Net	65720 lb
					Tons	32.86

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Net-Tons	100	32.86	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL22

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

PC
Signature of transporter

11/12/13
Date received

AM
Time received

67324
Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

11/12/13
Date of shipment

AM
Time of shipment

62
Trailer registration

Load#: 2

PC
Signature of transporter

11/12/13
Date received

PM
Time received

67324
Truck/Tractor registration

5286
Load size (cubic yards/tons)

Receiving facility

11/12/13
Date of shipment

PM
Time of shipment

62
Trailer registration

Load#: _____

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902139

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier SF CHASE SF CHASE
Vehicle# 3 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	100540 lb
In	11/12/2013 11:20:18	scale 1 inbou	PHIL BOISVERT		Tare	35620 lb
Out	11/12/2013 12:10:53	scale 2 outbo	eric metzler		Net	64920 lb
					Tons	32.46

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.46	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

SF 3

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/12/13 — Date received

AM — Time received

11-12-13 — Date of shipment

9:26 — Time of shipment

4685AR — Truck/Tractor registration

1152511 — Trailer registration

Load size (cubic yards/tons) 3246

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902140

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier TEMP ANY CARRIER
Vehicle# EMMERSON Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	100520 lb
In	11/12/2013 11:22:37	scale 1 inbou	PHIL BOISVERT		Tare	40540 lb
Out	11/12/2013 12:09:25	scale 2 outbo	eric metzler		Net	59980 lb
					Tons	29.99

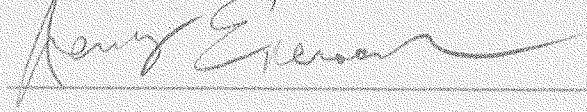
Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	29.99	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature 

405WM-Gonic.

Emerson

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: _____

Jerry Emerson
Signature of transporter

Turnkey Land Fill
Receiving facility

11 12 13
Date received

930 AM
Time received

11/12/13
Date of shipment

AM
Time of shipment

7243 AR NH
Truck/Tractor registration

1781102 ME
Trailer registration

29.99
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902069

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier MTC
Vehicle# 10
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/12/2013 08:31:50	scale 1 inbou	phil boisvert		Gross	97320 lb
Out	11/12/2013 08:57:39	scale 2 outbo	eric metzler		Tare	35820 lb
					Net	61500 lb
					Tons	30.75

Comments

WASTE MANAGEMENT

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	30.75	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

MTC 10

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MTC 10

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/12/13 | Time received

Date of shipment: 11/12/13 | Time of shipment

Truck/Tractor registration: FqTC4T

Trailer registration

Load size (cubic yards/tons): 30.75

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/12/13 | Time received

Date of shipment | Time of shipment

Truck/Tractor registration: FqTC4T

Trailer registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902163

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier MTC
Vehicle# 10
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound	Gross	99660 lb
In	11/12/2013 12:46:04	scale 1 inbou	PHIL BOISVERT		Tare	35500 lb
Out	11/12/2013 13:14:14	scale 2 outbo	eric metzler		Net	64160 lb
					Tons	32.08

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.08	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

MTC 10

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MTC 10

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/12/13 | Time received

Date of shipment: 11/12/13 | Time of shipment

Truck/Tractor registration: FqTC9T

Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/12/13 | Time received: PM

Date of shipment: 11/12/13 | Time of shipment: PM

Truck/Tractor registration: FqTC9T

Trailer registration

Load size (cubic yards/tons): 32.08

Load#:

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902071

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 87 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	98920 lb
In	11/12/2013 08:30:48	scale 1 inbou	phil boisvert		Tare	35420 lb
Out	11/12/2013 09:11:41	scale 2 outbo	eric metzler		Net	63500 lb
					Tons	31.75

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.75	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

87

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11-12-13

Time received

Date of shipment: 11/12/13

Time of shipment

Truck/Tractor registration: 841808

Trailer registration: 89099

Load size (cubic yards/tons): 31.75

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902179

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 87 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/12/2013 13:03:49	scale 1 inbou	PHIL BOISVERT		Gross	98260 lb
Out	11/12/2013 13:38:26	scale 2 outbo	eric metzler		Tare	35240 lb
					Net	63020 lb
					Tons	31.51

Comments

WASTE MANAGEMENT

Product	LDx	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Net-Tons	100	31.51	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

87

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11-12-13
Date received

Time received

11/12/13
Date of shipment

Time of shipment

84808
Truck/Tractor registration

88099
Trailer registration

Load size (cubic yards/tons) 8

Load#: 2

Signature of transporter

Receiving facility

11-12-13
Date received

PM
Time received

11/12/13
Date of shipment

PM
Time of shipment

84808
Truck/Tractor registration

3151

88099
Trailer registration

Load size (cubic yards/tons) 8

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902076

Customer Name	WLFRENCHEXCAV-491491NH WL Fre	Carrier	WL FRENCH WL FRENCH
Ticket Date	11/12/2013	Vehicle#	93 Volume
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0113251
State Waste Code		Gen EPA ID	NOT REQUIRED
Manifest	NA	PO	
Destination		Profile	491491NH (CONTAMINATED SOIL (DISPO
Generator	NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED		

	Time	Scale	Operator	Inbound	Gross	101060 lb
In	11/12/2013 08:51:44	scale 1 inbou	phil boisvert		Tare	36500 lb
Out	11/12/2013 09:22:55	scale 2 outbo	eric metzler		Net	64560 lb
					Tons	32.28

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.28	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

93

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/18/13 | Time received: AM

Date of shipment: 11/18/13 | Time of shipment: AM

Truck/Tractor registration: 58099

Trailer registration: T55

Load size (cubic yards/tons): 32.28

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/19/13 | Time received:

Date of shipment: | Time of shipment:

Truck/Tractor registration: 55099

Trailer registration: T55

Load size (cubic yards/tons):

Load#:

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (000) 963-4776

Original
Ticket# 902180

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

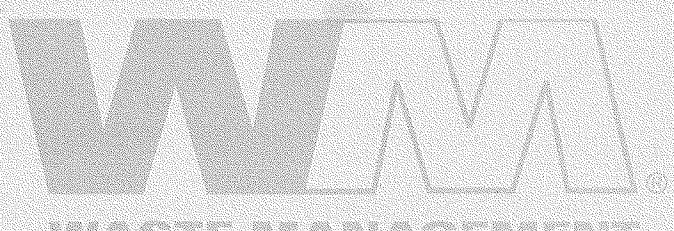
Carrier WL FRENCH WL FRENCH
Vehicle# 93 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator
In	11/12/2013 13:11:47	scale 1 inbou	PHIL BOISVERT
Out	11/12/2013 13:42:06	scale 2 outbo	eric metzler

Inbound

Gross	100040 lb
Tare	36180 lb
Net	63860 lb
Tons	31.93

Comments



	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	31.93	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE, THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

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Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/19/13 | Time received: AM | Date of shipment: 11/12/13 | Time of shipment: AM

Truck/Tractor registration: 88049 | Trailer registration: T55

Load size (cubic yards/tons): 0

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/19/13 | Time received: AM | Date of shipment: 11/12/13 | Time of shipment: AM

Truck/Tractor registration: 88049 | Trailer registration: T55

Load size (cubic yards/tons): 31.93

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received | Date of shipment | Time of shipment

Truck/Tractor registration | Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902080

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 95 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/12/2013 08:58:39	scale 1 inbou	phil boisvert		Gross	99920 lb
Out	11/12/2013 09:24:21	scale 2 outbo	eric metzler		Tare	37400 lb
					Net	62520 lb
					Tons	31.26

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Net-Tons	100	31.26	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

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WL 95

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter	Receiving facility
11/12/13 — Date received	AM — Time received
11/12/13 — Date of shipment	AM — Time of shipment
85808 — Truck/Tractor registration	T-45 — Trailer registration
31.26 — Load size (cubic yards/tons)	

Load#: 2

Signature of transporter	Receiving facility
11/12/13 — Date received	Time received
Date of shipment	Time of shipment
85808 — Truck/Tractor registration	T-45 — Trailer registration
Load size (cubic yards/tons)	

Load#: _____

Signature of transporter	Receiving facility
Date received	Time received
Date of shipment	Time of shipment
Truck/Tractor registration	Trailer registration
Load size (cubic yards/tons)	

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902177

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 95 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/12/2013 13:02:30	scale 1 inbou	PHIL BOISVERT		Gross	100800 lb
Out	11/12/2013 13:35:41	scale 2 outbo	eric metzler		Tare	37100 lb
					Net	63700 lb
					Tons	31.85

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fees	Amount	Origin
1 Cont Soil Met-Tons	100	31.85	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

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WL 95

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter	Receiving facility
11/12/13 — Date received; AM — Time received	11/12/13 — Date of shipment; AM — Time of shipment
85808 — Truck/Tractor registration	T-45 — Trailer registration
Load size (cubic yards/tons) 0	

Load#: 2

Signature of transporter	Receiving facility
11/12/13 — Date received; PM — Time received	11/12/13 — Date of shipment; PM — Time of shipment
85808 — Truck/Tractor registration	T-45 — Trailer registration
Load size (cubic yards/tons) 0 31.85	

Load#: _____

Signature of transporter	Receiving facility
Date received; Time received	Date of shipment; Time of shipment
Truck/Tractor registration	Trailer registration
Load size (cubic yards/tons)	

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Phs (800) 963-4776

Original
Ticket# 902321

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier TEMP ANY CARRIER
Vehicle# EMERSON Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	103000 lb
In	11/13/2013 08:36:58	scale 1 inbou	phil boisvert		Tare	40640 lb
Out	11/13/2013 09:06:52	scale 2 outbo	eric metzler		Net	62360 lb
					Tons	31.18

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.18	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

Emerson

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Jerry Emerson AXL
Signature of transporter

Turnkey Land fill
Receiving facility

11 13 13
Date received

6 45 Am
Time received

11 13 13
Date of shipment

AM
Time of shipment

7243 AR NH
Truck/Tractor registration

1781102 me
Trailer registration

31.18
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902418

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier TEMP ANY CARRIER
Vehicle# EMERSON Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/13/2013 12:57:20	scale 1 inbou	phil boisvert		Gross	97100 lb
Out	11/13/2013 13:28:35	scale 2 outbo	eric metzler		Tare	40340 lb
					Net	56760 lb
					Tons	28.38

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	28.38	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

Emerson

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Jerry Emerson AXL
Signature of transporter

Turnkey Land fill
Receiving facility

11 13 13
Date received

6 45 Am
Time received

11 13 13
Date of shipment

AM
Time of shipment

7243 AR NH
Truck/Tractor registration

1781102 me
Trailer registration

Load size (cubic yards/tons)

Load#: 2

Jerry Emerson AXL
Signature of transporter

Turnkey Land fill
Receiving facility

11 13 13
Date received

11:10 Am
Time received

11 13 13
Date of shipment

PM
Time of shipment

7243 AR NH,
Truck/Tractor registration

1781102 me
Trailer registration

26.38
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902311

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 21
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		Volume
In	11/13/2013 08:07:09	scale 1 inbou	phil boisvert		Gross	99660 lb
Out	11/13/2013 08:39:27	scale 2 outbo	eric metzler		Tare	36480 lb
					Net	63180 lb
					Tons	31.59

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.59	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

WASTE MANAGEMENT

30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Turnkey Landfill

Ticket# 903270

Customer Name WLFRENCHEXCAV-491491NH WL Fre Carrier WL FRENCH WL FRENCH
Ticket Date 11/19/2013 Vehicle# 67
Payment Type Credit Account Container
Manual Ticket# Driver Volume
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Time Scale Operator
In 11/19/2013 08:40:13 scale 1 inbou eric metzler Inbound Gross
Out 11/19/2013 09:16:10 scale 2 outbo phil belsvert Tare 98980 lb
Net 35600 lb
Comments Tons 63300 lb
31.65

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons 100		31.65	Tons				MA

Total Fees
Total Ticket

ID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that
information provided is true and correct to the best of my knowledge and belief.
THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Signature _____

WASTE MANAGEMENT

-Gonic.

/11

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Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/19/13
Date received

Time received

11/19/13
Date of shipment

Time of shipment

72831 GD/TSD
Truck/Tractor registration

Trailer registration

31.65
Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/19/13
Date received

Time received

Date of shipment

Time of shipment

72831 GD/TSD
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (000) 963-4776

Original
Ticket# 903359

Customer Name	WLFRENCHEXCAV-491491NH WL Fre	Carrier	WL FRENCH WL FRENCH
Ticket Date	11/19/2013	Vehicle#	67 Volume
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0113251
State Waste Code		Gen EPA ID	NOT REQUIRED
Manifest	+	PO	
Destination		Profile	491491NH (CONTAMINATED SOIL (DISPO
Generator	NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED		

	Time	Scale	Operator	Inbound	Gross	97960 lb
In	11/19/2013 12:44:02	scale 1 inbou	eric metzler		Tare	35400 lb
Out	11/19/2013 13:17:23	scale 2 outbo	phil boisvert		Net	62560 lb
					Tons	31.20

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Net-Tons	100	31.20	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

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Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#:

Signature of transporter

Receiving facility

11/19/13
Date received

Time received

11/19/13
Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Receiving facility

11/19/13
Date received

Time received

11/19/13
Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

31.28
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Page _____ of _____

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903253

Customer Name WLFRENCHEXCAV-491491NH ME Fre
Ticket Date 11/19/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier BMTS BMTS
Vehicle# 3 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	103920 lb
In	11/19/2013 07:57:34	scale 1 inbou	eric metzler		Tare	35120 lb
Out	11/19/2013 08:29:36	scale 2 outbo	eric metzler		Net	68000 lb
					Tons	34.40

Comments

WASTE MANAGEMENT

Product	LD%	Quantity	UOM	Rate	Amount	Origin
1 Cont Soil Net Tons	100	34.40	Tons			MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

3

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

JMTS INC
Signature of transporter

Receiving facility

11/19/13
Date received

Time received

11/19/13
Date of shipment

Time of shipment

6273AP
Truck/Tractor registration

23-464735
Trailer registration

3440
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903344

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/19/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier JMTS JMTS
Vehicle# 3 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	100320 lb
In	11/19/2013 12:15:27	scale 1 inbou	eric metzler		Tare	34940 lb
Out	11/19/2013 12:47:10	scale 2 outbo	phil boisvert		Net	65380 lb
					Tons	32.69

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	32.69	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

3

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

JMTS INC
Signature of transporter

Receiving facility

11/19/13
Date received

Time received

11/19/13
Date of shipment

Time of shipment

6273 AP
Truck/Tractor registration

23-46475
Trailer registration

34.40
Load size (cubic yards/tons)

Load#: 2

JMTS INC
Signature of transporter

Receiving facility

11/19/13
Date received

Time received

11/19/13
Date of shipment

Time of shipment

6273 AP
Truck/Tractor registration

23-46475
Trailer registration

27.69
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903280

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/19/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 21
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound	Gross	89340 lb
In	11/19/2013 09:11:10	scale 1 inbou	eric metzler		Tare	36300 lb
Out	11/19/2013 09:39:00	scale 2 outbo	phil boisvert		Net	53040 lb
					Tons	26.52

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	26.52	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

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Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DSP

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment 7/19/03 | Time of shipment 6:41

Truck/Tractor registration #2079

Trailer registration

Load size (cubic yards/tons) 26.52

Load#: 2

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment 6:41

Truck/Tractor registration #2077

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903386

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/19/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 21 . Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	106680 lb
In	11/19/2013 13:27:17	scale 1 inbou	eric metzler		Tare	36060 lb
Out	11/19/2013 14:34:22	scale 2 outbo	phil boisvert		Net	70620 lb
					Tons	35.31

Comments

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	35.31	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

21

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DSP

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment 7/19/03 | Time of shipment 6:41

Truck/Tractor registration #2079

Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment 7/19/03 | Time of shipment 6:41

Truck/Tractor registration #2077

Trailer registration

Load size (cubic yards/tons) 35.31

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903254

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/19/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier ROGERS ROGERS
Vehicle# 7 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO 093105562
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	91360 lb
In	11/19/2013 07:58:30	scale 1 inbou	eric metzler		Tare	36520 lb
Out	11/19/2013 08:36:01	scale 2 outbo	phil boisvert		Net	54840 lb
					Tons	27.42

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	27.42	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

DISP

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#:

Bryan Douglas
Signature of transporter

Receiving facility

11/19/13
Date received

Time received

Date of shipment 11/19/13

Time of shipment

62019
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons) 27.42

Load#:

Bryan Douglas
Signature of transporter

Receiving facility

11/19/13
Date received

Time received

Date of shipment

Time of shipment

62019
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#:

Bryan Douglas
Signature of transporter

Receiving facility

11/19/13
Date received

Time received

Date of shipment

Time of shipment

62019
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903345

Customer Name	WLFRENCHEXCAV-491491NH WL Fre	Carrier	ROGERS ROGERS
Ticket Date	11/19/2013	Vehicle#	7
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0113251
State Waste Code		Gen EPA ID	NOT REQUIRED
Manifest	+	PO	093105562
Destination		Profile	491491NH (CONTAMINATED SOIL (DISPO
Generator	NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED		

Volume

	Time	Scale	Operator	Inbound	Gross	99380 lb
In	11/19/2013 12:16:12	scale 1 inbou	eric metzler		Tare	36180 lb
Out	11/19/2013 12:56:37	scale 2 outbo	phil boisvert		Net	63200 lb
					Tons	31.60

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	31.60	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

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Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DSP

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: _____

Bryan Douglas
Signature of transporter

11/19/13
Date received

Time received

62019
Truck/Tractor registration

27.42
Load size (cubic yards/tons)

Receiving facility

11/19/13
Date of shipment

Time of shipment

Trailer registration

Load#: _____

Bryan Douglas
Signature of transporter

11/19/13
Date received

Time received

62019
Truck/Tractor registration

31.60
Load size (cubic yards/tons)

Receiving facility

11/19/13
Date of shipment

Time of shipment

Trailer registration

Load#: _____

Bryan Douglas
Signature of transporter

11/19/13
Date received

Time received

62019
Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
430 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903252

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/19/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier THOMPSON THOMPSON TRUCKING
Vehicle# 3 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	97140 lb
In	11/19/2013 07:55:03	scale 1 inbou	eric metzler		Tare	35000 lb
Out	11/19/2013 09:22:35	scale 2 outbo	phil boisvert		Net	62140 lb
					Tons	31.07

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.07	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

Thompson 3

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

DISP

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11-19-13
Date received

Time received

11-19-13
Date of shipment

Time of shipment

WJT-3
Truck/Tractor registration

T3101S1
Trailer registration

31.07
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (000) 963-4776

Original
Ticket# 903343

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/19/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier THOMPSON THOMPSON TRUCKING
Vehicle# 3 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/19/2013 12:14:26	scale 1 inbou	eric metzler		Gross	98100 lb
Out	11/19/2013 12:45:35	scale 2 outbo	phil boisvert		Tare	34760 lb
					Net	63340 lb
					Tons	31.67

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.67	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

Thompson 3

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

Disp

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11-19-13
Date received

Time received

11-19-13
Date of shipment

Time of shipment

WJT-3
Truck/Tractor registration

T310131
Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11-19-13
Date received

Time received

11-19-13
Date of shipment

Time of shipment

WJT-3
Truck/Tractor registration

Trailer registration

3167
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903273

Customer Name	WLFRENCHEXCAV-491491NH WL Fre	Carrier	WL FRENCH WL FRENCH
Ticket Date	11/19/2013	Vehicle#	82 Volume
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0113251
State Waste Code		Gen EPA ID	NOT REQUIRED
Manifest	+	PO	
Destination		Profile	491491NH (CONTAMINATED SOIL (DISPO
Generator	NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED		

	Time	Scale	Operator	Inbound	Gross	98600 lb
In	11/19/2013 08:49:41	scale 1 inbou	eric metzler		Tare	37560 lb
Out	11/19/2013 09:27:56	scale 2 outbo	phil boisvert		Net	61040 lb
					Tons	30.52

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.52	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

82

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

DISP

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: _____

Signature of transporter

Receiving facility

19 NOV 13
Date received

Time received

11/19/13
Date of shipment

Time of shipment

78735
Truck/Tractor registration

Trailer registration

30.52
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

19 NOV 13
Date received

Time received

Date of shipment

Time of shipment

78735
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Turnkey Landfill

Ticket# 903366

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/19/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 82 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	101660 lb
In	11/19/2013 13:00:30	scale 1 inbou	eric metzler		Tare	37240 lb
Out	11/19/2013 13:44:02	scale 2 outbo	phil boisvert		Net	64420 lb
					Tons	32.21

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.21	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver Signature _____

405WM-Genic

82

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: _____

Signature of transporter

Receiving facility

19 NOV 13
Date received

Time received

11 19 13
Date of shipment

Time of shipment

78735
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

19 NOV 13
Date received

Time received

11 19 13
Date of shipment

Time of shipment

78735
Truck/Tractor registration

Trailer registration

3221
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

Original

Turnkey Landfill

WASTE MANAGEMENT

30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Ticket# 903269

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/19/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPOEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 90 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/19/2013 08:39:15	scale 1 inbou	eric metzler		Gross	101360 lb
Out	11/19/2013 09:13:21	scale 2 outbo	phil boisvert		Tare	36560 lb
					Net	64800 lb
					Tons	32.40

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.40	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

90

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

FRENCH 90

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11-19-13
Date received

Time received

11/19/13
Date of shipment

Time of shipment

8:55 AM T-35
Truck/Tractor registration

Trailer registration

32.40
Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11-19-13
Date received

Time received

Date of shipment

Time of shipment

8:55 AM T-35
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903356

Customer Name	WLFRENCHEXCAV-491491NH WL Fre	Carrier	WL FRENCH WL FRENCH
Ticket Date	11/19/2013	Vehicle#	90
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0113251
State Waste Code		Gen EPA ID	NOT REQUIRED
Manifest	+	PO	
Destination		Profile	491491NH (CONTAMINATED SOIL (DISPO
Generator	NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED		

Volume

	Time	Scale	Operator	Inbound		
In	11/19/2013 12:39:54	scale 1 inbou	eric metzler		Gross	97180 lb
Out	11/19/2013 13:11:19	scale 2 outbo	phil boisvert		Tare	36220 lb
					Net	60960 lb
					Tons	30.48

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.48	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

90

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

FRENCH 90

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11-19-13
Date received

Time received

Date of shipment

Time of shipment

8:55 AM T-35
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11-19-13
Date received

Time received

Date of shipment

Time of shipment

8:55 AM T-35
Truck/Tractor registration

Trailer registration

30.48
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903519

Customer Name	WLFRENCHEXCAV-491491NH WL Fre	Carrier	WL FRENCH WL FRENCH
Ticket Date	11/20/2013	Vehicle#	67 Volume
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0113251
State Waste Code		Gen EPA ID	NOT REQUIRED
Manifest	+	PO	
Destination		Profile	491491NH (CONTAMINATED SOIL (DISPO
Generator	NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED		

	Time	Scale	Operator	Inbound	Gross	97940 lb
In	11/20/2013 09:03:29	scale 1 inbou	eric metzler		Tare	35700 lb
Out	11/20/2013 09:35:15	scale 2 outbo	phil holsvert		Net	62240 lb
					Tons	31.12

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.12	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

1111

67

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#:

Signature of transporter

Receiving facility

11/20/13
Date received

Time received

11/20/13
Date of shipment

Time of shipment

32831 63/75
Truck/Tractor registration

Trailer registration

3112
Load size (cubic yards/tons)

Load#:

Signature of transporter

Receiving facility

11/20/13
Date received

Time received

Date of shipment

Time of shipment

32831 63/457
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903603

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/20/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 67 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	99680 lb
In	11/20/2013 12:58:31	scale 1 inbou	eric metzler		Tare	35440 lb
Out	11/20/2013 13:29:42	scale 2 outbo	phil boisvert		Net	64240 lb
					Tons	32.12

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.12	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver Signature _____

405WM-Gonic.

1411

67

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#:

Signature of transporter

Receiving facility

11/20/13
Date received

Time received

11/20/13
Date of shipment

Time of shipment

32831 63/75
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Receiving facility

11/20/13
Date received

Time received

11/20/13
Date of shipment

Time of shipment

32831 63/757
Truck/Tractor registration

Trailer registration

32.12
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (000) 963-4776

Original
Ticket# 903504

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/20/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier JMTS JMTS
Vehicle# 3 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	103800 lb
In	11/20/2013 08:41:16	scale 1 inbou	eric metzler		Tare	35020 lb
Out	11/20/2013 09:11:31	scale 2 outbo	phil boisvert		Net	68780 lb
					Tons	34.39

Comments

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	34.39	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

3

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

SMTS INC
Signature of transporter

Receiving facility

11/20/13
Date received

Time received

11/20/13
Date of shipment

Time of shipment

6203 AP
Truck/Tractor registration

23-46475
Trailer registration

34.59
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Phr (800) 963-4776

Original
Ticket# 903592

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/20/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier JMTS JMTS
Vehicle# 3 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/20/2013 12:36:16	scale 1 inbou	eric metzler		Gross	95180 lb
Out	11/20/2013 13:05:20	scale 2 outbo	phil boisvert		Tare	34880 lb
					Net	60300 lb
					Tons	30.15

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.15	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

3

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

JMTS INC
Signature of transporter

Receiving facility

11/20/13
Date received

Time received

11/20/13
Date of shipment

Time of shipment

6273 AP
Truck/Tractor registration

23-46475
Trailer registration

24.39
Load size (cubic yards/tons)

Load#: 2

JMTS INC
Signature of transporter

Receiving facility

11/20/13
Date received

Time received

11/20/13
Date of shipment

Time of shipment

6273 AP
Truck/Tractor registration

23-46475
Trailer registration

30.15
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903512

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/20/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 21
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/20/2013 08:52:53	scale 1 inbou	eric metzler		Gross	98200 lb
Out	11/20/2013 09:10:29	scale 2 outbo	phil boisvert		Tare	36340 lb
					Net	61860 lb
					Tons	30.93

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.93	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL 21

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: [signature]
Receiving facility: [signature]
Date received: 19/13
Time received:
Date of shipment: 11/20/13
Time of shipment:
Truck/Tractor registration: 72079
Trailer registration: 64
Load size (cubic yards/tons): 30.93

Load#: 2

Signature of transporter: [signature]
Receiving facility:
Date received: 19/13
Time received:
Date of shipment:
Time of shipment:
Truck/Tractor registration: 72079
Trailer registration: 64
Load size (cubic yards/tons):

Load#: _____

Signature of transporter:
Receiving facility:
Date received:
Time received:
Date of shipment:
Time of shipment:
Truck/Tractor registration:
Trailer registration:
Load size (cubic yards/tons):

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons):

Total carried forward (cubic yards/tons):

Total carried forward and this page (cubic yards/tons):

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903601

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/20/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +6
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 21
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	101080 lb
In	11/20/2013 12:55:39	scale 1 inbou	eric metzler		Tare	36100 lb
Out	11/20/2013 13:31:04	scale 2 outbo	phil boisvert		Net	64980 lb
					Tons	32.49

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.49	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic

LL 21

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: [signature]
Receiving facility: [signature]
Date received: 19/13
Time received:
Date of shipment: 11 20 13
Time of shipment:
Truck/Tractor registration: 72079
Trailer registration: 64
Load size (cubic yards/tons):

Load#: 2

Signature of transporter: [signature]
Receiving facility: [signature]
Date received: 19/13
Time received:
Date of shipment: 11 20 13
Time of shipment:
Truck/Tractor registration: 72079
Trailer registration: 64
Load size (cubic yards/tons):

Load#: _____

Signature of transporter:
Receiving facility:
Date received:
Time received:
Date of shipment:
Time of shipment:
Truck/Tractor registration:
Trailer registration:
Load size (cubic yards/tons):

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons):
Total carried forward (cubic yards/tons):
Total carried forward and this page (cubic yards/tons):

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903494

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/20/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 25
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound	Gross	100680 lb
In	11/20/2013 08:24:11	scale 1 inbou	eric metzler		Tare	38800 lb
Out	11/20/2013 08:51:12	scale 2 outbo	phil boisvert		Net	61880 lb
					Tons	30.94

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.94	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

DISP

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment 11/20/13

Time of shipment

Truck/Tractor registration 25000 - MA

Trailer registration 74 - MA

Load size (cubic yards/tons) 30.94

Load#: 2

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment 11/20/13

Time of shipment

Truck/Tractor registration 25000 - MA

Trailer registration 74 - MA

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903583

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/20/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 25 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	97800 lb
In	11/20/2013 12:09:37	scale 1 inbou	eric metzler		Tare	38660 lb
Out	11/20/2013 12:40:42	scale 2 outbo	phil boisvert		Net	59140 lb
					Tons	29.57

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	29.57	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

DISP

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received | Time received

11/20/13
Date of shipment | Time of shipment

25000 -MA
Truck/Tractor registration

74-MA
Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

Date received | Time received

11/20/13
Date of shipment | Time of shipment

25000 -MA
Truck/Tractor registration

74-MA
Trailer registration

26.57
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey-Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903496

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/20/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier MTC
Vehicle# 10
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator
In	11/20/2013 08:27:07	scale 1 inbou	eric metzler
Out	11/20/2013 09:00:00	scale 2 outbo	phil boisvert

Inbound

Gross	101340 lb
Tare	35820 lb
Net	65520 lb
Tons	32.76

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	32.76	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MTK10

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/20/13
Date received

Time received

11/20/13
Date of shipment

Time of shipment

Fatcat
Truck/Tractor registration

Trailer registration

32.76
Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/20/13
Date received

Time received

Date of shipment

Time of shipment

Fatcat
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903593

Customer Name	WLFRENCHEXCAV-491491NH WL Fre	Carrier	MTC
Ticket Date	11/20/2013	Vehicle#	10
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0113251
State Waste Code		Gen EPA ID	NOT REQUIRED
Manifest	+	PO	
Destination		Profile	491491NH (CONTAMINATED SOIL (DISPO
Generator	NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED		

Volume

	Time	Scale	Operator	Inbound		
In	11/20/2013 12:37:31	scale 1 inbou	eric metzler		Gross	98000 lb
Out	11/20/2013 13:18:07	scale 2 outbo	phil boisvert		Tare	35620 lb
					Net	62380 lb
					Tons	31.19

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	31.19	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

DSP

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MTK10

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/20/13
Date received

Time received

11/20/13
Date of shipment

Time of shipment

Fatcat
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/20/13
Date received

Time received

11/20/13
Date of shipment

Time of shipment

Fatcat
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons) 3119

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Phr (800) 963-4776

Original
Ticket# 903509

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/20/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier ROGERS ROGERS
Vehicle# 7
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO 093105562
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator
In	11/20/2013 08:47:10	scale 1 inbou	eric metzler
Out	11/20/2013 09:15:40	scale 2 outbo	phil boisvert

Inbound

Gross	95120 lb
Tare	36740 lb
Net	58380 lb
Tons	29.19

Volume

Comments

WASTE MANAGEMENT

	Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	29.19	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

(1)

Rog 7

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#:

Bryan L Douglas
Signature of transporter

Receiving facility

11/20/13
Date received

Time received

11/21/2013
Date of shipment

Time of shipment

G2019
Truck/Tractor registration

Trailer registration

27.19
Load size (cubic yards/tons)

Load#:

Bryan Douglas
Signature of transporter

Receiving facility

11/26/13
Date received

Time received

Date of shipment

Time of shipment

G2019
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903596

Customer Name	WLFRENCHEXCAV-491491NH WL Fre	Carrier	ROGERS ROGERS
Ticket Date	11/20/2013	Vehicle#	7
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0113251
State Waste Code		Gen EPA ID	NOT REQUIRED
Manifest	+	PO	093105562
Destination		Profile	491491NH (CONTAMINATED SOIL (DISPO
Generator	NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED		

Volume

	Time	Scale	Operator	Inbound	Gross	104880 lb
In	11/20/2013 12:43:56	scale 1 inbou	eric metzler		Tare	36540 lb
Out	11/20/2013 13:20:32	scale 2 outbo	phil boisvert		Net	68340 lb
					Tons	34.17

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	34.17	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

(1)

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#:

Bryan Douglas
Signature of transporter

11/20/13
Date received

Time received

G2019
Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

11/20/13
Date of shipment

Time of shipment

Trailer registration

Load#:

Bryan Douglas
Signature of transporter

11/20/13
Date received

Time received

G2019
Truck/Tractor registration

34.17
Load size (cubic yards/tons)

Receiving facility

11/20/13
Date of shipment

Time of shipment

Trailer registration

Load#:

Signature of transporter

Date received

Time received

Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903502

Customer Name	WLFRENCHEXCAV-491491NH WL Fre	Carrier	THOMPSON THOMPSON TRUCKING
Ticket Date	11/20/2013	Vehicle#	3 Volume
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0113251
State Waste Code		Gen EPA ID	NOT REQUIRED
Manifest	+	PO	
Destination		Profile	491491NH (CONTAMINATED SOIL (DISPO
Generator	NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED		

	Time	Scale	Operator	Inbound		
In	11/20/2013 09:39:13	scale 1 inbou	eric metzler		Gross	98220 lb
Out	11/20/2013 09:05:45	scale 2 outbo	phil boisvert		Tare	34500 lb
					Net	63720 lb
					Tons	31.86

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	31.86	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

Thompson 3

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11-20-13 | Time received

Date of shipment: 11-20-13 | Time of shipment

Truck/Tractor registration: WJT-3

Trailer registration: T310135

Load size (cubic yards/tons): 3/86

Load#: 2

Signature of transporter

Receiving facility: Tower

Date received: 11-20-13 | Time received

Date of shipment: 11-20-13 | Time of shipment

Truck/Tractor registration: WJT-3

Trailer registration: T 310135

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903591

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/20/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier THOMPSON THOMPSON TRUCKING
Vehicle# 3 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/20/2013 12:35:04	scale 1 inbou	eric metzler		Gross	95280 lb
Out	11/20/2013 13:04:10	scale 2 outbo	phil boisvert		Tare	34320 lb
					Net	60960 lb
					Tons	30.48

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.48	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

Thompson 3

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11-20-13
Date received

Time received

11-20-13
Date of shipment

Time of shipment

WST-2
Truck/Tractor registration

T310135
Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11-20-13
Date received

Time received

11-20-13
Date of shipment

Time of shipment

WST-2
Truck/Tractor registration

T 310135
Trailer registration

30 48
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903626

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/20/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 87 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	99420 lb
In	11/20/2013 13:45:02	scale 1 inbou	eric metzler		Tare	35000 lb
Out	11/20/2013 14:23:25	scale 2 outbo	phil boisvert		Net	64420 lb
					Tons	32.21

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.21	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

87

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11-20-13 | Time received

Date of shipment: 11/20/13 | Time of shipment

Truck/Tractor registration: 84808

Trailer registration: 88099

Load size (cubic yards/tons): 32.21

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903518

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/20/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 90 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	98640 lb
In	11/20/2013 09:02:05	scale 1 inbou	eric metzler		Tare	36640 lb
Out	11/20/2013 09:39:12	scale 2 outbo	phil boisvert		Net	62000 lb
					Tons	31.00

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.00	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

FRENCH 90

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

GULF 90 pad

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11-20-13
Date received

Time received

11-20-13
Date of shipment

Time of shipment

8552MA T-35
Truck/Tractor registration

Trailer registration

400
Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11-20-13
Date received

Time received

Date of shipment

Time of shipment

8552MA T-35
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903611

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/20/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 90
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator
In	11/20/2013 13:11:36	scale 1 inbou	eric metzler
Out	11/20/2013 13:41:29	scale 2 outbo	phil boisvert

Inbound

Gross	101640 lb
Tare	36300 lb
Net	65340 lb
Tons	32.67

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	32.67	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

FRENCH 90

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

WLF 90 asp

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11-20-13
Date received

Time received

11-20-13
Date of shipment

Time of shipment

8553MA T-35
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11-20-13
Date received

Time received

11-20-13
Date of shipment

Time of shipment

8553MA T-35
Truck/Tractor registration

Trailer registration

32.67
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903748

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier JMTS JMTS
Vehicle# 3
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/21/2013 08:05:00	scale 1 inbou	eric metzler		Gross	106800 lb
Out	11/21/2013 09:04:49	scale 2 outbo	phil boisvert		Tare	35000 lb
					Net	71800 lb
					Tons	35.90

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	35.90	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

JMTS 3

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

JMTS INC			
Signature of transporter		Receiving facility	
11/21/13		11/21/13	
Date received	Time received	Date of shipment	Time of shipment
6273AP		23-46475	
Truck/Tractor registration		Trailer registration	
3.590			
Load size (cubic yards/tons)			

Load#: _____

Signature of transporter		Receiving facility	
Date received	Time received	Date of shipment	Time of shipment
Truck/Tractor registration		Trailer registration	
Load size (cubic yards/tons)			

Load#: _____

Signature of transporter		Receiving facility	
Date received	Time received	Date of shipment	Time of shipment
Truck/Tractor registration		Trailer registration	
Load size (cubic yards/tons)			

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03039
Ph: (800) 963-4776

Original
Ticket# 903846

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier JMTS JMTS
Vehicle# 3 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	95720 lb
In	11/21/2013 12:30:21	scale 1 inbou	eric metzler		Tare	34760 lb
Out	11/21/2013 12:59:10	scale 2 outbo	phil boisvert		Net	60960 lb
					Tons	30.48

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.48	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature 

405WM-Gonic.

JMTS 3

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

JMTS INC
Signature of transporter

Receiving facility

11/21/13
Date received

Time received

Date of shipment

Time of shipment

6273AP
Truck/Tractor registration

23-46475
Trailer registration

3590
Load size (cubic yards/tons)

Load#: 2

JMTS INC
Signature of transporter

Receiving facility

11/21/13
Date received

Time received

Date of shipment

Time of shipment

6273AP
Truck/Tractor registration

23-46475
Trailer registration

3048
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Turnkey Landfill

Ticket# 903768

Customer Name	WLFRENCHEXCAV-491491NH WL Fre	Carrier	LL DT
Ticket Date	11/21/2013	Vehicle#	21
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0113251
State Waste Code		Gen EPA ID	NOT REQUIRED
Manifest	+	PO	
Destination		Profile	491491NH (CONTAMINATED SOIL (DISPO
Generator	NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED		

Volume

	Time	Scale	Operator	Inbound	Gross	96900 lb
In	11/21/2013 08:46:42	scale 1 inbou	eric metzler		Tare	36280 lb
Out	11/21/2013 09:19:10	scale 2 outbo	phil boisvert		Net	60620 lb
					Tons	30.31

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.31	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

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Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: Je
Receiving facility: EMC
Date received: 2/1/13
Time received:
Date of shipment: 1/2/13
Time of shipment:
Truck/Tractor registration: 72079
Trailer registration: 64
Load size (cubic yards/tons): 30-31

Load#: 2

Signature of transporter: Je
Receiving facility:
Date received: 2/1/13
Time received:
Date of shipment:
Time of shipment:
Truck/Tractor registration: 72079
Trailer registration: 64
Load size (cubic yards/tons):

Load#: _____

Signature of transporter:
Receiving facility:
Date received:
Time received:
Date of shipment:
Time of shipment:
Truck/Tractor registration:
Trailer registration:
Load size (cubic yards/tons):

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons):
Total carried forward (cubic yards/tons):
Total carried forward and this page (cubic yards/tons):

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903870

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 21 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	100600 lb
In	11/21/2013 13:14:11	scale 1 inbou	eric metzler		Tare	36060 lb
Out	11/21/2013 13:49:42	scale 2 outbo	phil boisvert		Net	64540 lb
					Tons	32.27

Comments

WASTE MANAGEMENT

	Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	32.27	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

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Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received 2/1/13 | Time received | Date of shipment 2/1/13 | Time of shipment

Truck/Tractor registration 72079 | Trailer registration 64

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

Date received 2/1/13 | Time received | Date of shipment 2/1/13 | Time of shipment

Truck/Tractor registration 72079 | Trailer registration 64

Load size (cubic yards/tons) 32.27

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received | Date of shipment | Time of shipment

Truck/Tractor registration | Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903738

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 25
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound	Gross	99500 lb
In	11/21/2013 07:49:33	scale 1 inbou	eric metzler		Tare	38280 lb
Out	11/21/2013 08:17:51	scale 2 outbo	phil boisvert		Net	61220 lb
					Tons	30.61

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.61	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

L+L
24

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

DSP

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: Robe

Receiving facility

Date received | Time received

Date of shipment: 11/21/13 | Time of shipment

Truck/Tractor registration: 25000-MA

Trailer registration: T4-MA

Load size (cubic yards/tons): 30.61

Load#: 2

Signature of transporter: Robe

Receiving facility

Date received | Time received

Date of shipment: 11/21/13 | Time of shipment

Truck/Tractor registration: 25000-MA

Trailer registration: T4-MA

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903823

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 25
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound	Gross	98800 lb
In	11/21/2013 11:46:50	scale 1 inbou	eric metzler		Tare	38000 lb
Out	11/21/2013 12:11:44	scale 2 outbo	phil boisvert		Net	60800 lb
					Tons	30.40

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.40	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

L+L
24

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

DSP

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: Robe

Receiving facility

Date received | Time received

Date of shipment: 11/21/13 | Time of shipment

Truck/Tractor registration: 25000-MA

Trailer registration: 74-MA

Load size (cubic yards/tons)

Load#: 2

Signature of transporter: Robe

Receiving facility

Date received | Time received

Date of shipment: 11/21/13 | Time of shipment

Truck/Tractor registration: 25000-MA

Trailer registration: 74-MA

Load size (cubic yards/tons): 30 46

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903771

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 41
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound	Gross	101400 lb
In	11/21/2013 09:01:16	scale 1 inbou	eric wetzler		Tare	36460 lb
Out	11/21/2013 09:24:25	scale 2 outbo	phil boisvert		Net	64940 lb
					Tons	32.47

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.47	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

L&L 41

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/21/13
Date received

Time received

11/21/13
Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

3247
Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/21/13
Date received

Time received

Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Page _____ of _____

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903862

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 41
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound
In	11/21/2013 12:59:12	scale 1 inbou	eric metzler	
Out	11/21/2013 13:24:10	scale 2 outbo	phil boisvert	

Gross	99360 lb
Tare	36280 lb
Net	63080 lb
Tons	31.54

Comments

WASTE MANAGEMENT

Product	LD%	Mat	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.54	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

L&L 41

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/21/13
Date received

Time received

11/21/13
Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/21/13
Date received

Time received

11/21/13
Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

Load size (cubic yards/tons) 31.54

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Page _____ of _____

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903773

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier SF CHASE SF CHASE
Vehicle# 3 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/21/2013 09:13:22	scale 1 inbou	eric metzler		Gross	97840 lb
Out	11/21/2013 09:40:41	scale 2 outbo	phil boisvert		Tare	35660 lb
					Net	62180 lb
					Tons	31.09

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Net-Tons	100	31.09	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

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Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment: 11-21-13 | Time of shipment: 7:30

Truck/Tractor registration: 4685AR

Trailer registration: T15211

Load size (cubic yards/tons): 31.09

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903808

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier SF CHASE SF CHASE
Vehicle# 3 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	99120 lb
In	11/21/2013 13:36:35	scale 1 inbou	eric metzler		Tare	35420 lb
Out	11/21/2013 14:13:34	scale 2 outbo	phil boisvert		Net	63700 lb
					Tons	31.85

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.85	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

sf 3

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 2

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment: 11-26-13 | Time of shipment: 7:30

Truck/Tractor registration: 4685AR

Trailer registration: T15251

Load size (cubic yards/tons)

Load#: 3

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment: 11-27-13 | Time of shipment: 11:30

Truck/Tractor registration: 4685AR

Trailer registration: T15251

Load size (cubic yards/tons): 31.85

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Phs (800) 963-4776

Original
Ticket# 903743

Customer Name	WLFRENCHEXCAV-491491NH WL Fre	Carrier	MTC
Ticket Date	11/21/2013	Vehicle#	10
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0113251
State Waste Code		Gen EPA ID	NOT REQUIRED
Manifest	+	PO	
Destination		Profile	491491NH (CONTAMINATED SOIL (DISPO
Generator	NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED		

Volume

	Time	Scale	Operator	Inbound	Gross	98800 lb
In	11/21/2013 07:56:59	scale 1 inbou	eric metzler		Tare	36300 lb
Out	11/21/2013 08:32:23	scale 2 outbo	phil boisvert		Net	62500 lb
					Tons	31.25

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.25	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

10

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MJC10

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter — Receiving facility

11/21/13 — Date received — Time received — Date of shipment — Time of shipment

Truck/Tractor registration: FqTCqT — Trailer registration: 3625

Load size (cubic yards/tons): 20

Load#: 2

Signature of transporter — Receiving facility

11/21/13 — Date received — Time received — Date of shipment — Time of shipment

Truck/Tractor registration: FqTCqT — Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter — Receiving facility

Date received — Time received — Date of shipment — Time of shipment

Truck/Tractor registration — Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Turnkey Landfill

Ticket# 903835

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier MTC
Vehicle# 10 Voluwe
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	96660 lb
In	11/21/2013 12:07:48	scale 1 inbou	eric metzler		Tare	35940 lb
Out	11/21/2013 12:33:12	scale 2 outbo	phil boisvert		Net	60720 lb
					Tons	30.36

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.36	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

10

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MTC10

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/21/13 | Time received

Date of shipment: 11/21/13 | Time of shipment

Truck/Tractor registration: FqTCqT

Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/21/13 | Time received

Date of shipment: 11/21/13 | Time of shipment

Truck/Tractor registration: FqTCqT

Trailer registration

Load size (cubic yards/tons): 30.36

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903752

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier ROGERS ROGERS
Vehicle# 7 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO 093105562
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	100360 lb
In	11/21/2013 08:10:34	scale 1 inbou	eric metzler		Tare	36840 lb
Out	11/21/2013 08:45:24	scale 2 outbo	phil boisvert		Net	63520 lb
					Tons	31.76

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.76	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

Log 7

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#:

Bryon Douglas
Signature of transporter

E Miles
Receiving facility

11/21/13
Date received

Time received

11/21/13
Date of shipment

Time of shipment

62019
Truck/Tractor registration

Trailer registration

31.76
Load size (cubic yards/tons)

Load#:

Bryon Douglas
Signature of transporter

Receiving facility

11/21/13
Date received

Time received

Date of shipment

Time of shipment

62019
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903841

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier ROGERS ROGERS
Vehicle# 7 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO 093105562
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	97380 lb
In	11/21/2013 12:25:56	scale 1 inbou	eric metzler		Tare	36400 lb
Out	11/21/2013 12:50:21	scale 2 outbo	phil boisvert		Net	60980 lb
					Tons	30.49

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.49	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

Rog 7

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

J. Load Information

Note: Make additional copies of this page as necessary.

Load#:

Bryan L. Douglas
Signature of transporter

Receiving facility

11/21/13
Date received

Time received

11/21/13
Date of shipment

Time of shipment

62019
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#:

Bryan L. Douglas
Signature of transporter

Receiving facility

11/21/13
Date received

Time received

11/21/13
Date of shipment

Time of shipment

62019
Truck/Tractor registration

3049
Trailer registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903747

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier THOMPSON THOMPSON TRUCKING
Vehicle# 3 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/21/2013 08:04:00	scale 1 inbou	eric metzler		Gross	103300 lb
Out	11/21/2013 08:34:30	scale 2 outbo	phil boisvert		Tare	34960 lb
					Net	68340 lb
					Tons	34.17

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	34.17	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

Thomp 3

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP Thompson 3

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11-21-13 | Time received

Date of shipment: 11-21-13 | Time of shipment

Truck/Tractor registration: WJ57-7

Trailer registration: T3/0135

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility: Truck

Date received: 11-21-13 | Time received

Date of shipment: 11-21-13 | Time of shipment

Truck/Tractor registration: WJ57-7

Trailer registration

Load size (cubic yards/tons): 34.17

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (000) 963-4776

Original
Ticket# 903045

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier THOMPSON THOMPSON TRUCKING
Vehicle# 3 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	97760 lb
In	11/21/2013 12:29:14	scale 1 inbou	eric metzler		Tare	34740 lb
Out	11/21/2013 12:54:40	scale 2 outbo	phil boisvert		Net	63020 lb
					Tons	31.51

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.51	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

Thomp 3

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP Thompson 3

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11-21-13 | Time received

Date of shipment: 11-21-13 | Time of shipment

Truck/Tractor registration: WJ57-7

Trailer registration: T310135

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

Date received: 11-21-13 | Time received

Date of shipment: 11-21-13 | Time of shipment

Truck/Tractor registration: WJ57-7

Trailer registration

Load size (cubic yards/tons): 31.51

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903739

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier VIGER MJ VIGER
Vehicle# VIGER Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/21/2013 07:50:21	scale 1 inbou	eric metzler		Gross	99340 lb
Out	11/21/2013 08:23:11	scale 2 outbo	phil boisvert		Tare	37700 lb
					Net	61640 lb
					Tons	30.82

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.82	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

DSP

VIGER #1

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

MJV
Signature of transporter

Receiving facility

11-21-13
Date received

Time received

11/21/13
Date of shipment

Time of shipment

71313
Truck/Tractor registration

13313
Trailer registration

30,82
Load size (cubic yards/tons)

Load#: 2

M.J Vigue
Signature of transporter

TREE
Receiving facility

11-21-13
Date received

Time received

Date of shipment

Time of shipment

71313
Truck/Tractor registration

13313
Trailer registration

Load size (cubic yards/tons)

Load#: 3

Signature of transporter

TREE
Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (000) 963-4776

Original
Ticket# 903824

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier VIGER MJ VIGER
Vehicle# VIGER Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	92600 lb
In	11/21/2013 11:47:53	scale 1 inbou	eric metzler		Tare	37400 lb
Out	11/21/2013 12:24:30	scale 2 outbo	phil boisvert		Net	55200 lb
					Tons	27.60

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	27.60	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DSP

VIGER #1

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

M J Vigue
Signature of transporter

Tree
Receiving facility

11-21-13
Date received

Time received

11/21/13
Date of shipment

Time of shipment

71313
Truck/Tractor registration

13313
Trailer registration

Load size (cubic yards/tons)

Load#: 2

M J Vigue
Signature of transporter

Tree
Receiving facility

11-21-13
Date received

Time received

11/21/13
Date of shipment

Time of shipment

71313
Truck/Tractor registration

13313
Trailer registration

27.60
Load size (cubic yards/tons)

Load#: 3

Signature of transporter

TREE
Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903858

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 82 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/21/2013 12:54:03	scale 1 inbou	eric metzler		Gross	101440 lb
Out	11/21/2013 13:45:30	scale 2 outbo	phil boisvert		Tare	37400 lb
					Net	64040 lb
					Tons	32.02

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.02	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

82

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

DISP

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: _____

Signature of transporter _____ Receiving facility _____

21 NOV 13 _____ 11/21/13 _____
Date received Time received Date of shipment Time of shipment

78738
Truck/Tractor registration _____ Trailer registration _____

Load size (cubic yards/tons) _____

Load#: _____

Signature of transporter _____ Receiving facility _____

21 NOV 13 _____ 11/21/13 _____
Date received Time received Date of shipment Time of shipment

78735
Truck/Tractor registration _____ Trailer registration _____

30.02
Load size (cubic yards/tons) _____

Load#: _____

Signature of transporter _____ Receiving facility _____

Date received _____ Time received _____ Date of shipment _____ Time of shipment _____

Truck/Tractor registration _____ Trailer registration _____

Load size (cubic yards/tons) _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) _____

Total carried forward (cubic yards/tons) _____

Total carried forward and this page (cubic yards/tons) _____

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903763

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 86 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/21/2013 08:30:56	scale 1 inbou	eric metzler		Gross	101260 lb
Out	11/21/2013 09:07:50	scale 2 outbo	phil boisvert		Tare	37680 lb
					Net	63580 lb
					Tons	31.79

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.79	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

WLF86

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/21/13

Time received

Date of shipment: 11/21/13

Time of shipment

Truck/Tractor registration: 838673

Trailer registration

Load size (cubic yards/tons): 31.79

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/21/13

Time received

Date of shipment: 11/21/13

Time of shipment

Truck/Tractor registration: 838673

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 903857

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/21/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest +
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 86 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator
In	11/21/2013 12:53:04	scale 1 inbou	eric metzler
Out	11/21/2013 13:42:36	scale 2 outbo	phil boisvert

Inbound

Gross	99200 lb
Tare	37380 lb
Net	61820 lb
Tons	30.91

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	30.91	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

10-14- 31 FROM WM 3 3033302130 2001 P.311

LL21

Massachusetts Department of Environmental Protection

Bureau of Waste Site Cleanup

BWSC-012B

491491NH

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number

SUMMARY SHEET _____ OF _____

I. LOAD INFORMATION:

Load 1:

Signature of Transporter Representative:

Date of Shipment: 11/13

Time of Shipment: ☑ AM ☐ PM

Truck/Tractor Registration: 72079

Trailer Registration (if any): 64

Receiving Facility/Temporary Storage Representative:

Date of Receipt: 11/13/13

Time of Receipt: ☑ AM ☐ PM

Load Size (cu. yds./tons): 31.59

Load 2:

Signature of Transporter Representative:

Date of Shipment: 11/13

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration: 72079

Trailer Registration (if any): 64

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 3:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration: 72079

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 4:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 5:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH 03839
Ph: (800) 963-4776

Original
Ticket# 902407

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 21
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/13/2013 12:26:42	scale 1 inbou	phil boisvert		Gross	94360 lb
Out	11/13/2013 13:01:20	scale 2 outbo	eric metzler		Tare	36180 lb
					Net	58180 lb
					Tons	29.09

Comments

WASTE MANAGEMENT

	Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Net-Tons 100		29.09	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL21

Massachusetts Department of Environmental Protection **BWSC-012B**
Bureau of Waste Site Cleanup

491491NH

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number ☐ - ☐

SUMMARY SHEET _____ OF _____

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative:
Date of Shipment: 1/3/13
Time of Shipment: ☑ AM ☐ PM
Truck/Tractor Registration: 72079
Trailer Registration (if any): 64
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 11/13/13
Time of Receipt: ☑ AM ☐ PM
Load Size (cu. yds./tons):

Load 2:
Signature of Transporter Representative:
Date of Shipment: 1/3/13
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration: 72079
Trailer Registration (if any): 64
Receiving Facility/Temporary Storage Representative:
Date of Receipt: 11/13/13
Time of Receipt: ☐ AM ☑ PM
Load Size (cu. yds./tons):

Load 3:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration: 72079
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902317

Customer Name WLFRENCHEXCAV-491491NH WL Fre Carrier LL DT
Ticket Date 11/13/2013 Vehicle# 22 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0113251
State Waste Code Gen EPA ID NOT REQUIRED
Manifest na PO
Destination Profile 491491NH (CONTAMINATED SOIL (DISPO
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

	Time	Scale	Operator	Inbound		
In	11/13/2013 08:21:03	scale 1 inbou	phil boisvert		Gross	96060 lb
Out	11/13/2013 08:47:52	scale 2 outbo	eric metzler		Tare	35720 lb
					Net	60340 lb
					Tons	30.17

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	30.17	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL22

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/13/13
Date received

Time received

11/13/13
Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

30.17
Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/13/13
Date received

Time received

Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902408

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 22
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/13/2013 12:36:48	scale 1 inbou	phil boisvert		Gross	99800 lb
Out	11/13/2013 13:07:03	scale 2 outbo	eric metzler		Tare	34960 lb
					Net	64840 lb
					Tons	32.42

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	32.42	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL22

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/13/13
Date received

Time received

11/13/13
Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/13/13
Date received

Time received

11/13/13
Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

Load size (cubic yards/tons) 32,42

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Phs (800) 963-4776

Original
Ticket# 902301

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier MTC
Vehicle# 10
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/13/2013 07:52:57	scale 1 inbou	phil boisvert		Gross	99180 lb
Out	11/13/2013 08:17:31	scale 2 outbo	eric metzler		Tare	36200 lb
					Net	62980 lb
					Tons	31.49

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.49	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

10

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MTC 10

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received 11/13/13 Time received

Date of shipment 11/13/13 Time of shipment AM

Truck/Tractor registration FATCAT

Trailer registration

Load size (cubic yards/tons) 31,49

Load#: 2

Signature of transporter

Receiving facility

Date received 11/13/13 Time received

Date of shipment Time of shipment

Truck/Tractor registration FATCAT

Trailer registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Receiving facility

Date received Time received

Date of shipment Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Ticket# 902401

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier MTC
Vehicle# 10 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/13/2013 12:00:00	scale 1 inbou	phil boisvert		Gross	93960 lb
Out	11/13/2013 12:37:00	scale 2 outbo	eric metzler		Tare	35880 lb
					Net	58080 lb
					Tons	29.04

Comments

WASTE MANAGEMENT

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Net-Tons	100	29.04	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

10

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MTC 10

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/13/13
Date received

Time received

11/13/13
Date of shipment

AM
Time of shipment

FqTC9T
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/13/13
Date received

Time received

11/13/13
Date of shipment

PM
Time of shipment

Fq1
Truck/Tractor registration

Trailer registration

2904
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Page _____ of _____

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Turnkey Landfill

Ticket# 902312

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 87
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/13/2013 08:13:38	scale 1 inbou	phil boisvert		Gross	99400 lb
Out	11/13/2013 08:55:37	scale 2 outbo	eric metzler		Tare	35420 lb
					Net	63980 lb
					Tons	31.99

Comments

WASTE MANAGEMENT

	Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	31.99	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

87

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11-13-13 | Time received

Date of shipment: 11/13/13 | Time of shipment

Truck/Tractor registration: 84808

Trailer registration: 88099

Load size (cubic yards/tons): 31.99

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902409

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 87 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	97980 lb
In	11/13/2013 12:40:27	scale 1 inbou	phil boisvert		Tare	35140 lb
Out	11/13/2013 13:22:34	scale 2 outbo	eric metzler		Net	62840 lb
					Tons	31.42

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.42	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

87

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11-13-13 | Time received

Date of shipment: 11/13/13 | Time of shipment

Truck/Tractor registration: 84808

Trailer registration: 88099

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

Date received: 11-13-13 | Time received

Date of shipment: 11/13/13 | Time of shipment

Truck/Tractor registration: 84808

Trailer registration: 88099

Load size (cubic yards/tons): 31+2

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Page _____ of _____

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902309

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 93 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/13/2013 08:02:38	scale 1 inbou	phil boisvert		Gross	98720 lb
Out	11/13/2013 08:38:15	scale 2 outbo	eric metzler		Tare	36480 lb
					Net	62240 lb
					Tons	31.12

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.12	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

WL 93

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 10/13/13 | Time received

Date of shipment: 10/13/13 | Time of shipment

Truck/Tractor registration: 88049

Trailer registration: T55

Load size (cubic yards/tons): 31.12

Load#: 2

Signature of transporter

Receiving facility

Date received: 10/13/13 | Time received

Date of shipment | Time of shipment

Truck/Tractor registration: 88049

Trailer registration: T55

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902406

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 93 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/13/2013 12:21:40	scale 1 inbou	phil boisvert		Gross	102020 lb
Out	11/13/2013 13:21:09	scale 2 outbo	eric metzler		Tare	36240 lb
					Net	65780 lb
					Tons	32.89

Comments

WASTE MANAGEMENT

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.89	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

WL 93

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/13/13 | Time received

Date of shipment: 11/13/13 | Time of shipment

Truck/Tractor registration: 8809

Trailer registration: T55

Load size (cubic yards/tons): 0

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/13/13 | Time received

Date of shipment: 11/13/13 | Time of shipment: PM

Truck/Tractor registration: 8809

Trailer registration: T55

Load size (cubic yards/tons): 32.89

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902302

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 95 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/13/2013 07:54:14	scale 1 inbou	phil boisvert		Gross	98640 lb
Out	11/13/2013 08:23:45	scale 2 outbo	eric metzler		Tare	37520 lb
					Net	61120 lb
					Tons	30.56

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.56	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

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Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter	Receiving facility
Date received: 11/13/13	Time received: Am
Date of shipment: 11/13/13	Time of shipment: Am
Truck/Tractor registration: 85808	Trailer registration: T-45
Load size (cubic yards/tons): 30.56	

Load#: _____

Signature of transporter	Receiving facility
Date received	Time received
Date of shipment	Time of shipment
Truck/Tractor registration	Trailer registration
Load size (cubic yards/tons)	

Load#: _____

Signature of transporter	Receiving facility
Date received	Time received
Date of shipment	Time of shipment
Truck/Tractor registration	Trailer registration
Load size (cubic yards/tons)	

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902400

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 95 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/13/2013 12:04:58	scale 1 inbou	phil boisvert		Gross	99380 lb
Out	11/13/2013 13:04:39	scale 2 outbo	eric metzler		Tare	37480 lb
					Net	61900 lb
					Tons	30.95

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.95	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

111 111

Wk 95

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received 11/13/13 | Time received AM | Date of shipment 11/13/13 | Time of shipment AM

Truck/Tractor registration 85808 | Trailer registration T-45

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

Date received 11/13/13 | Time received AM | Date of shipment 11/13/13 | Time of shipment PM

Truck/Tractor registration 85808 | Trailer registration T-45

Load size (cubic yards/tons) 30.75

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received | Date of shipment | Time of shipment

Truck/Tractor registration | Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902570

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier AXL AXL
Vehicle# 17
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/14/2013 08:54:23	scale 1 inbou	phil boisvert		Gross	92400 lb
Out	11/14/2013 09:34:09	scale 2 outbo	eric metzler		Tare	37060 lb
					Net	55340 lb
					Tons	27.67

Comments

WASTE MANAGEMENT

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	27.67	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver Signature

AXL 17

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

AXL — Signature of transporter

Turkey Hill — Receiving facility

11/14/13 — Date received

7:00 Am — Time received

11/14/13 — Date of shipment

7:00 Am — Time of shipment

AXL 17 — Truck/Tractor registration

AXL 17 — Trailer registration

27.67 — Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902670

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier AXL AXL
Vehicle# 17
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/14/2013 13:26:27	scale 1 inbou	phil boisvert		Gross	91880 lb
Out	11/14/2013 14:07:00	scale 2 outbo	eric metzler		Tare	36700 lb
					Net	55180 lb
					Tons	27.59

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	27.59	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

AXL 17

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

AXL — Signature of transporter
11/14/13 — Date received
7:00 Am — Time received
AXL 17 — Truck/Tractor registration
Load size (cubic yards/tons)

Turnkey Landfill — Receiving facility
11/14/13 — Date of shipment
7:00 Am — Time of shipment
AXL 17 — Trailer registration

Load#: 2

AXL — Signature of transporter
11/14/13 — Date received
11:30 Am — Time received
AXL 17 — Truck/Tractor registration
27.59 — Load size (cubic yards/tons)

Turnkey Landfill — Receiving facility
11/14/13 — Date of shipment
11:30 Am — Time of shipment
AXL 17 — Trailer registration

Load#:

Signature of transporter
Date received
Time received
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment
Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902569

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier EMERSON
Vehicle# BLACK
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/14/2013 08:52:24	scale 1 inbou	phil boisvert		Gross	98180 lb
Out	11/14/2013 09:27:19	scale 2 outbo	eric metzler		Tare	40660 lb
					Net	57520 lb
					Tons	28.76

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	28.76	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver Signature

405WM-Gonic

Emerson

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Jerry Emerson AXL
Signature of transporter

Turnkey Land fill Phil B
Receiving facility

11 14 13
Date received

6:45 AM
Time received

11 14 13
Date of shipment

Time of shipment

7243 AR NH.
Truck/Tractor registration

1781102 me
Trailer registration

28.76
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902660

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier EMERSON
Vehicle# BLACK
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator
In	11/14/2013 13:25:37	scale 1 inbou	phil boisvert
Out	11/14/2013 14:03:01	scale 2 outbo	eric metzler

Inbound

Gross	92440 lb
Tare	40320 lb
Net	52120 lb
Tons	26.06

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	26.06	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

Emerson

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Jerry Emerson AXL
Signature of transporter

Turnkey Land fill
Receiving facility

11 14 13 — Date received
6:45 Am — Time received
11 14 13 — Date of shipment
Time of shipment

7243 AR NH.
Truck/Tractor registration

1781102 me
Trailer registration

Load size (cubic yards/tons)

Load#: 2

Jerry Emerson AXL
Signature of transporter

Turnkey Land fill
Receiving facility

11 14 13 — Date received
11:15 Am — Time received
11 14 13 — Date of shipment
Time of shipment

7243 AR NH.
Truck/Tractor registration

1781102 me
Trailer registration

Load size (cubic yards/tons) 26.06

Load#: _____

Signature of transporter

Receiving facility

Date received — Time received

Date of shipment — Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902551

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 21
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/14/2013 08:04:06	scale 1 inbou	phil boisvert		Gross	93000 lb
Out	11/14/2013 08:34:40	scale 2 outbo	eric metzler		Tare	36380 lb
					Net	56620 lb
					Tons	28.31

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	28.31	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL 21

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received 1413 Time received

Date of shipment 1/14/13 Time of shipment

Truck/Tractor registration 72079

Trailer registration 64

Load size (cubic yards/tons) 28.31

Load#: 2

Signature of transporter

Receiving facility

Date received 1413 Time received

Date of shipment Time of shipment

Truck/Tractor registration 72079

Trailer registration 64

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received Time received

Date of shipment Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902642

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENDINEERS - NED

Carrier LL DT
Vehicle# 21
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator
In	11/14/2013 12:09:55	scale 1 inbou	phil boisvert
Out	11/14/2013 12:41:27	scale 2 outbo	eric metzler

Inbound

Gross	99380 lb
Tare	36080 lb
Net	63300 lb
Tons	31.65

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.65	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL21

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received 1413 Time received

Date of shipment 1114/13 Time of shipment

Truck/Tractor registration 72079

Trailer registration 64

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

Date received 1413 Time received

Date of shipment 1114/13 Time of shipment

Truck/Tractor registration 72079

Trailer registration 64

Load size (cubic yards/tons) 31.65

Load#: _____

Signature of transporter

Receiving facility

Date received Time received

Date of shipment Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

TurnKey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902559

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 22
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/14/2013 08:21:05	scale 1 inbou	phil boisvert		Gross	98660 lb
Out	11/14/2013 09:03:47	scale 2 outbo	eric metzler		Tare	35260 lb
					Net	63400 lb
					Tons	31.70

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.70	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

L&L 22

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

RC
Signature of transporter

Receiving facility

11/14/13
Date received

Time received

11/14/13
Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

31.70
Load size (cubic yards/tons)

Load#: 2

RC
Signature of transporter

Receiving facility

11/14/13
Date received

Time received

Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902645

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 22
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/14/2013 12:25:07	scale 1 inbou	phil boisvert		Gross	98300 lb
Out	11/14/2013 12:51:10	scale 2 outbo	eric metzler		Tare	34940 lb
					Net	63360 lb
					Tons	31.68

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.68	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

L#L 22

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/14/13
Date received

Time received

11/14/13
Date of shipment

Time of shipment

6 T 3 2 4
Truck/Tractor registration

62
Trailer registration

Load size (cubic yards/tons) 31.68

Load#: 2

Signature of transporter

Receiving facility

11/14/13
Date received

Time received

11/14/13
Date of shipment

Time of shipment

6 T 3 2 4
Truck/Tractor registration

62
Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902549

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier MTC
Vehicle# 10
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/14/2013 08:01:21	scale 1 inbou	phil boisvert		Gross	93000 lb
Out	11/14/2013 08:20:55	scale 2 outbo	eric metzler		Tare	35700 lb
					Net	58100 lb
					Tons	29.05

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	29.05	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

10

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MTC10

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/14/13 — Date received

AM — Time received

11/14/13 — Date of shipment

AM — Time of shipment

Fatcat — Truck/Tractor registration

Trailer registration

29.05 — Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/14/13 — Date received

Time received

Date of shipment

Time of shipment

Fatcat — Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902641

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier MTC
Vehicle# 10 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	98320 lb
In	11/14/2013 12:06:52	scale 1 inbou	phil boisvert		Tare	35760 lb
Out	11/14/2013 12:39:51	scale 2 outbo	eric metzler		Net	62560 lb
					Tons	31.28

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.28	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

10

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MTC10

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/14/13 | Time received: AM

Date of shipment: 11/14/13 | Time of shipment: AM

Truck/Tractor registration: FATCAT

Trailer registration

Load size (cubic yards/tons): 0

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/14/13 | Time received:

Date of shipment: 11/14/13 | Time of shipment: PM

Truck/Tractor registration: FATCAT

Trailer registration

Load size (cubic yards/tons): 0 31.28

Load#:

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

*Twombly Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902556

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 87 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/14/2013 08:16:41	scale 1 inbou	phil boisvert		Gross	100340 lb
Out	11/14/2013 08:53:55	scale 2 outbo	eric metzler		Tare	35400 lb
					Net	64940 lb
					Tons	32.47

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	32.47	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

87

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11-14-13

Time received

Date of shipment: 11/14/13

Time of shipment

Truck/Tractor registration: 84808

Trailer registration: 88099

Load size (cubic yards/tons): 32.47

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902650

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 87 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	98700 lb
In	11/14/2013 12:41:27	scale 1 inbou	phil boisvert		Tare	35120 lb
Out	11/14/2013 13:23:53	scale 2 outbo	eric metzler		Net	63580 lb
					Tons	31.79

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.79	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

87

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: [signature]
Receiving facility: [signature]
Date received: 11-14-13
Time received:
Date of shipment: 11/14/13
Time of shipment:
Truck/Tractor registration: 84808
Trailer registration: 88099
Load size (cubic yards/tons): 0

Load#: 2

Signature of transporter: [signature]
Receiving facility: [signature]
Date received: 11-14-13
Time received:
Date of shipment: 11/14/13
Time of shipment:
Truck/Tractor registration: 84808
Trailer registration: 88099
Load size (cubic yards/tons): 31.79

Load#: _____

Signature of transporter:
Receiving facility:
Date received:
Time received:
Date of shipment:
Time of shipment:
Truck/Tractor registration:
Trailer registration:
Load size (cubic yards/tons):

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons):
Total carried forward (cubic yards/tons):
Total carried forward and this page (cubic yards/tons):

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902557

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 90 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator
In	11/14/2013 08:17:45	scale 1 inbou	phil boisvert
Out	11/14/2013 08:57:23	scale 2 outbo	eric metzler

Inbound

Gross	104480 lb
Tare	36500 lb
Net	67980 lb
Tons	33.99

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	33.99	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature 

405WM-Gonic.

90

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

WLF90

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11-14-13
Date received

Time received

11/14/13
Date of shipment

Time of shipment

8:35 AM
Truck/Tractor registration

T-35

Trailer registration

Load size (cubic yards/tons) 0 22.99

Load#: 2

Signature of transporter

Receiving facility

11-14-13
Date received

Time received

Date of shipment

Time of shipment

8:35 AM
Truck/Tractor registration

T-35

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Page _____ of _____

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902651

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 90 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/14/2013 12:42:22	scale 1 inbou	phil boisvert		Gross	101140 lb
Out	11/14/2013 13:25:04	scale 2 outbo	eric metzler		Tare	36260 lb
					Net	64880 lb
					Tons	32.44

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.44	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

90

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

WLF90

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11-14-13

Time received

Date of shipment: 11/14/13

Time of shipment

Truck/Tractor registration: 855288MA T-35

Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

Date received: 11-14-13

Time received

Date of shipment: 11/14/13

Time of shipment

Truck/Tractor registration: 855288MA T-35

Trailer registration

Load size (cubic yards/tons): 32.44

Load#:

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (000) 963-4776

Original
Ticket# 902558

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 93 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/14/2013 08:19:46	scale 1 inbou	phil boisvert		Gross	101120 lb
Out	11/14/2013 09:00:39	scale 2 outbo	eric metzler		Tare	36660 lb
					Net	64460 lb
					Tons	32.23

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.23	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

93

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/14/13
Date received

Time received

11/14/13
Date of shipment

Time of shipment

55097
Truck/Tractor registration

755
Trailer registration

32.83
Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/14/13
Date received

Time received

Date of shipment

Time of shipment

55097
Truck/Tractor registration

755
Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Tupnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Phs (800) 963-4776

Original
Ticket# 902652

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/14/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 93 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/14/2013 12:43:29	scale 1 inbou	phil boisvert		Gross	100840 lb
Out	11/14/2013 13:28:31	scale 2 outbo	eric metzler		Tare	36560 lb
					Net	64280 lb
					Tons	32.14

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.14	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE, THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

93

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/14/13
Date received

Time received

11/14/13
Date of shipment

Time of shipment

55097
Truck/Tractor registration

755
Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/14/13
Date received

Time received

11/14/13
Date of shipment

Time of shipment

55097
Truck/Tractor registration

755
Trailer registration

Load size (cubic yards/tons) 32.14

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902083

Customer Name	WLFRENCHEXCAV-491491NH WL Fre	Carrier	JR JR CONSTRUCTION
Ticket Date	11/12/2013	Vehicle#	23 Volume
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0113251
State Waste Code		Gen EPA ID	NOT REQUIRED
Manifest	NA	PO	
Destination		Profile	491491NH (CONTAMINATED SOIL (DISPO
Generator	NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED		

	Time	Scale	Operator	Inbound	Gross	98180 lb
In	11/12/2013 09:08:31	scale 1 inbou	phil boisvert		Tare	38060 lb
Out	11/12/2013 09:45:53	scale 2 outbo	eric metzler		Net	60120 lb
					Tons	30.06

Comments

WASTE MANAGEMENT

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.06	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

23

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: (1)

JR CONST. #23
Signature of transporter

TURNKEY
Receiving facility

11-12-13
Date received

Time received

11-12-13
Date of shipment

Time of shipment

77511
Truck/Tractor registration

172003
Trailer registration

Load size (cubic yards/tons)

Load#: (2)

J.R. CONST. #23
Signature of transporter

TURNKEY
Receiving facility

11-12-13
Date received

Time received

11/12/13
Date of shipment

Time of shipment

77511
Truck/Tractor registration

172003
Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902195

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier JR JR CONSTRUCTION
Vehicle# 23
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator
In	11/12/2013 13:19:56	scale 1 inbou	PHIL BOISVERT
Out	11/12/2013 13:55:21	scale 2 outbo	eric metzler

	Volume
Inbound Gross	99400 lb
Tare	37840 lb
Net	61640 lb
Tons	30.82

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	30.82	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

23

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: (1)

JR CONST #23
Signature of transporter

TURNKEY cf Phillips
Receiving facility

11-12-13
Date received

Time received

11-12-13
Date of shipment

Time of shipment

17511
Truck/Tractor registration

172003
Trailer registration

Load size (cubic yards/tons)

Load#: (2)

J.R. CONST. #23
Signature of transporter

TURNKEY cf Phillips
Receiving facility

11-12-13
Date received

PM
Time received

11-12-13
Date of shipment

PM
Time of shipment

17511
Truck/Tractor registration

172003
Trailer registration

30.87
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902093

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 21 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	105260 lb
In	11/12/2013 09:37:48	scale 1 inbou	phil boisvert		Tare	36320 lb
Out	11/12/2013 10:12:24	scale 2 outbo	eric metzler		Net	68940 lb
					Tons	34.47

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	34.47	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL21

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received 12/13 Time received AM

Date of shipment 11/12/13 Time of shipment AM

Truck/Tractor registration 72079

Trailer registration 64

Load size (cubic yards/tons) 34.47

Load#: 2

Signature of transporter

Receiving facility

Date received 12/13 Time received

Date of shipment 64 Time of shipment

Truck/Tractor registration 72079

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received Time received

Date of shipment Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902222

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 21
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound	Gross	100920 lb
In	11/12/2013 14:02:17	scale 1 inbou	PHIL BOISVERT		Tare	36000 lb
Out	11/12/2013 14:36:57	scale 2 outbo	eric metzler		Net	64920 lb
					Tons	32.46

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.46	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL21

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received 11/13 Time received AM

Date of shipment 11/12/13 Time of shipment AM

Truck/Tractor registration 72079

Trailer registration 64

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

Date received 11/13 Time received PM

Date of shipment 11/12/13 Time of shipment PM

Truck/Tractor registration 72079

Trailer registration 64

Load size (cubic yards/tons) 32.46

Load#: _____

Signature of transporter

Receiving facility

Date received Time received

Date of shipment Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902088

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 22
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound	Gross	98020 lb
In	11/12/2013 09:20:49	scale 1 inbou	phil boisvert		Tare	35200 lb
Out	11/12/2013 09:50:10	scale 2 outbo	eric metzler		Net	62820 lb
					Tons	31.41

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.41	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL22

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/12/13
Date received

AM
Time received

11/12/13
Date of shipment

AM
Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

31.41
Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/12/13
Date received

Time received

Date of shipment

Time of shipment

67324
Truck/Tractor registration

62
Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902204

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 22
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound		
In	11/12/2013 13:35:22	scale 1 inbou	PHIL BOISVERT		Gross	100620 lb
Out	11/12/2013 14:13:40	scale 2 outbo	eric metzler		Tare	34900 lb
					Net	65720 lb
					Tons	32.86

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.86	Tons				MA

Total Fees
Total Ticket

*SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

LL22

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/12/13 — Date received

AM — Time received

11/12/13 — Date of shipment

AM — Time of shipment

67324 — Truck/Tractor registration

62 — Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/12/13 — Date received

PM — Time received

11/12/13 — Date of shipment

PM — Time of shipment

67324 — Truck/Tractor registration

62 — Trailer registration

5280 — Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902139

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier SF CHASE SF CHASE
Vehicle# 3 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	100540 lb
In	11/12/2013 11:20:18	scale 1 inbou	PHIL BOISVERT		Tare	35620 lb
Out	11/12/2013 12:10:53	scale 2 outbo	eric metzler		Net	64920 lb
					Tons	32.46

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	32.46	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

SF 3

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/12/13 — Date received

AM — Time received

11-12-13 — Date of shipment

9:26 — Time of shipment

4685AL — Truck/Tractor registration

1152511 — Trailer registration

3246 — Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902140

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier TEMP ANY CARRIER
Vehicle# EMMERSON Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/12/2013 11:22:37	scale 1 inbou	PHIL BOISVERT		Gross	100520 lb
Out	11/12/2013 12:09:25	scale 2 outbo	eric metzler		Tare	40540 lb
					Net	59980 lb
					Tons	29.99

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	29.99	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature

405WM-Gonic.

Emerson

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: _____

Jerry Emerson
Signature of transporter

Turnkey Land Fill
Receiving facility

11 12 13
Date received

930 AM
Time received

11/12/13
Date of shipment

AM
Time of shipment

7243 AR NH
Truck/Tractor registration

1781102 MF
Trailer registration

29.99
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902069

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier MTC
Vehicle# 10
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

Volume

	Time	Scale	Operator	Inbound	Gross	97320 lb
In	11/12/2013 08:31:50	scale 1 inbou	phil boisvert		Tare	35820 lb
Out	11/12/2013 08:57:39	scale 2 outbo	eric metzler		Net	61500 lb
					Tons	30.75

Comments

Product		LD%	Qty	UOM	Rate	Fee#	Amount	Origin
1	Cont Soil Met-Tons	100	30.75	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

MTC 10

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MTC 10

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/12/13 | Time received

Date of shipment: 11/12/13 | Time of shipment

Truck/Tractor registration: FqTC9T

Trailer registration

Load size (cubic yards/tons): 30.75

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/12/13 | Time received

Date of shipment | Time of shipment

Truck/Tractor registration: FqTC9T

Trailer registration

Load size (cubic yards/tons)

Load#:

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902163

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier MTC
Vehicle# 10 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/12/2013 12:46:04	scale 1 inbou	PHIL BOISVERT		Gross	99660 lb
Out	11/12/2013 13:14:14	scale 2 outbo	eric metzler		Tare	35500 lb
					Net	64160 lb
					Tons	32.08

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	32.08	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

MTC 10

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

MTC 10

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/12/13
Date received

Time received

11/12/13
Date of shipment

Time of shipment

FqTC9T
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons) 0

Load#: 2

Signature of transporter

Receiving facility

11/12/13
Date received

PM
Time received

11/12/13
Date of shipment

PM
Time of shipment

FqTC9T
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons) 32.08

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902071

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 87 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/12/2013 08:38:48	scale 1 inbou	phil boisvert		Gross	98920 lb
Out	11/12/2013 09:11:41	scale 2 outbo	eric metzler		Tare	35420 lb
					Net	63500 lb
					Tons	31.75

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.75	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

87

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11-12-13
Date received

Time received

11/12/13
Date of shipment

Time of shipment

841808
Truck/Tractor registration

S89099
Trailer registration

31.75
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Phs (800) 963-4776

Original
Ticket# 902179

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 87 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/12/2013 13:03:49	scale 1 inbou	PHIL BOISVERT		Gross	98260 lb
Out	11/12/2013 13:38:26	scale 2 outbo	eric metzler		Tare	35240 lb
					Net	63020 lb
					Tons	31.51

Comments

WASTE MANAGEMENT

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	31.51	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

87

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11-12-13
Date received

Time received

11/12/13
Date of shipment

Time of shipment

81808
Truck/Tractor registration

88099
Trailer registration

Load size (cubic yards/tons) 0

Load#: 2

Signature of transporter

Receiving facility

11-12-13
Date received

PM
Time received

11/12/13
Date of shipment

PM
Time of shipment

81808
Truck/Tractor registration

88099
Trailer registration

Load size (cubic yards/tons) 0

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902076

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 93 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	101060 lb
In	11/12/2013 08:51:44	scale 1 inbou	phil boisvert		Tare	36500 lb
Out	11/12/2013 09:22:55	scale 2 outbo	eric metzler		Net	64560 lb
					Tons	32.28

Comments

Product	LD%	Qty	UOM	Rate	Fee#	Amount	Origin
1 Cont Soil Met-Tons	100	32.28	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

93

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/18/13 | Time received: AM

Date of shipment: 11/21/13 | Time of shipment: AM

Truck/Tractor registration: 58099

Trailer registration: T55

Load size (cubic yards/tons): 32.28

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/19/13 | Time received:

Date of shipment: | Time of shipment:

Truck/Tractor registration: 55099

Trailer registration: T55

Load size (cubic yards/tons):

Load#:

Signature of transporter

Receiving facility

Date received: | Time received:

Date of shipment: | Time of shipment:

Truck/Tractor registration:

Trailer registration:

Load size (cubic yards/tons):

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902188

Customer Name WLFRENCHEXCAV-431491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 93 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 431491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	100040 lb
In	11/12/2013 13:11:47	scale 1 inbou	PHIL BOISVERT		Tare	36180 lb
Out	11/12/2013 13:42:06	scale 2 outbo	eric metzler		Net	63860 lb
					Tons	31.93

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.93	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE, THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

93

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/18/13 | Time received: AM

Date of shipment: 11/12/13 | Time of shipment: AM

Truck/Tractor registration: 38099

Trailer registration: T55

Load size (cubic yards/tons): 0

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/19/13 | Time received: AM

Date of shipment: 11/12/13 | Time of shipment: AM

Truck/Tractor registration: 38099

Trailer registration: T55

Load size (cubic yards/tons): 31,93

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902080

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 95 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	99920 lb
In	11/12/2013 08:58:39	scale 1 inbou	phil boisvert		Tare	37400 lb
Out	11/12/2013 09:24:21	scale 2 outbo	eric metzler		Net	62520 lb
					Tons	31.26

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.26	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

1111 ~~1111~~ ~~1111~~

WL 95

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: H.B. Whitten	Receiving facility: [signature]
Date received: 11/12/13	Time received: AM
Date of shipment: 11/12/13	Time of shipment: AM
Truck/Tractor registration: 85808	Trailer registration: T-45
Load size (cubic yards/tons): 31.26	

Load#: 2

Signature of transporter: H.B. Whitten	Receiving facility:
Date received: 11/12/13	Time received:
Date of shipment:	Time of shipment:
Truck/Tractor registration: 85808	Trailer registration: T-45
Load size (cubic yards/tons):	

Load#: _____

Signature of transporter:	Receiving facility:
Date received:	Time received:
Date of shipment:	Time of shipment:
Truck/Tractor registration:	Trailer registration:
Load size (cubic yards/tons):	

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons): _____

Total carried forward (cubic yards/tons): _____

Total carried forward and this page (cubic yards/tons): _____

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902177

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/12/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier WL FRENCH WL FRENCH
Vehicle# 95 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound	Gross	100800 lb
In	11/12/2013 13:02:38	scale 1 inbou	PHIL BOISVERT		Tare	37100 lb
Out	11/12/2013 13:35:41	scale 2 outbo	eric metzler		Net	63700 lb
					Tons	31.85

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Met-Tons	100	31.85	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

1111 ~~1111~~ ~~111~~

WL 95

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

491491NH
Tracking Number

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

Date received: 11/12/13 | Time received: AM

Date of shipment: 11/12/13 | Time of shipment: AM

Truck/Tractor registration: 85808

Trailer registration: T-45

Load size (cubic yards/tons): 0

Load#: 2

Signature of transporter

Receiving facility

Date received: 11/12/13 | Time received: PM

Date of shipment: 11/12/13 | Time of shipment: PM

Truck/Tractor registration: 85808

Trailer registration: T-45

Load size (cubic yards/tons): 0 31.85

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902321

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier TEMP ANY CARRIER
Vehicle# EMERSON Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/13/2013 08:36:58	scale 1 inbou	phil boisvert		Gross	103000 lb
Out	11/13/2013 09:06:52	scale 2 outbo	eric metzler		Tare	40640 lb
					Net	62360 lb
					Tons	31.18

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.18	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature 

405WM-Gonic.

Emerson

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Jerry Emerson AXL
Signature of transporter

Turnkey Land fill
Receiving facility

11 13 13
Date received

6 45 Am
Time received

11 13 13
Date of shipment

AM
Time of shipment

7243 AR NH
Truck/Tractor registration

1781102 me
Trailer registration

31.18
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 902418

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier TEMP ANY CARRIER
Vehicle# EMERSON Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/13/2013 12:57:20	scale 1 inbou	phil boisvert		Gross	97100 lb
Out	11/13/2013 13:20:35	scale 2 outbo	eric metzler		Tare	40340 lb
					Net	56760 lb
					Tons	28.38

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	28.38	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

Emerson

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Jerry Emerson AXL
Signature of transporter

Turnkey Land fill
Receiving facility

11 13 13 | 6 45 Am
Date received | Time received

11 13 13 | AM
Date of shipment | Time of shipment

7243 AR NH
Truck/Tractor registration

178102 me
Trailer registration

Load size (cubic yards/tons)

Load#: 2

Jerry Emerson AXL
Signature of transporter

Turnkey Land fill
Receiving facility

11 13 13 | 11:10 AM
Date received | Time received

11 13 13 | PM
Date of shipment | Time of shipment

7243 AR NH
Truck/Tractor registration

178102 me
Trailer registration

Load size (cubic yards/tons) 26.38

Load#: _____

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment | Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Page _____ of _____

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (840) 963-4776

Original
Ticket# 902311

Customer Name WLFRENCHEXCAV-491491NH WL Fre
Ticket Date 11/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest ne
Destination
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier LL DT
Vehicle# 21 Volume
Container
Driver
Check#
Billing # 0113251
Gen EPA ID NOT REQUIRED
PO
Profile 491491NH (CONTAMINATED SOIL (DISPO

	Time	Scale	Operator	Inbound		
In	11/13/2013 08:07:09	scale 1 inbou	phil boisvert		Gross	99660 lb
Out	11/13/2013 08:39:27	scale 2 outbo	eric metzler		Tare	36480 lb
					Net	63180 lb
					Tons	31.59

Comments

WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Met-Tons	100	31.59	Tons				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature _____

405WM-Gonic.

WLF86

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

491491NH
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility

11/21/13
Date received

Time received

11/21/13
Date of shipment

Time of shipment

83873
Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

Load#: 2

Signature of transporter

Receiving facility

11/21/13
Date received

Time received

11/21/13
Date of shipment

Time of shipment

83873
Truck/Tractor registration

Trailer registration

3091
Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Receiving facility

Date received

Time received

Date of shipment

Time of shipment

Truck/Tractor registration

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444922

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier HEIMLICH TRACTOR TRAILER
Vehicle# 64
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

	Time	Scale	Operator
In	12/03/2013 07:38:09	Inbound	CAMIDIO1
Out	12/03/2013 07:56:23	Outbound	CAMIDIO1

Comments

Inbound

	Volume
Gross	101720 lb
Tare	39540 lb
Net	62180 lb
Tons	31.09

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	31.09	Tons				MA

Total Tax
Total Ticket

ccordance with Massachusetts law, I certify that the contents of this load
ree of any substances not authorized for acceptance at Fitchburg Landfill.

ver's Signature

WM

Heimlich
64

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Heimlich L+C #64

Load#:

Signature of transporter: [signature]
Receiving facility: Fitchburg Landfill @
Date received: 12-3-13
Time received: 7:38 AM
Date of shipment: 12/3/13
Time of shipment:
Truck/Tractor registration: 15999 MA
Trailer registration: 79555 MA
Load size (cubic yards/tons): 31.09
Ticket 444922

Load#:

Signature of transporter: [signature]
Receiving facility:
Date received: 12-3-13
Time received:
Date of shipment:
Time of shipment:
Truck/Tractor registration: 15999 MA
Trailer registration: 79555 MA
Load size (cubic yards/tons):

Load#:

Signature of transporter: [signature]
Receiving facility:
Date received: 12-3-13
Time received:
Date of shipment:
Time of shipment:
Truck/Tractor registration: 15999 MA
Trailer registration: 79555 MA
Load size (cubic yards/tons):

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444936

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier HEIMLICH TRACTOR TRAILER
Vehicle# 64 Volume
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

	Time	Scale	Operator	Inbound		
In	12/03/2013 09:06:42	Inbound	CAMIDIO1		Gross	106220 lb
Out	12/03/2013 09:29:24	Outbound	CAMIDIO1		Tare	39500 lb
					Net	66720 lb
					Tons	33.36

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons 100		33.36	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

Heimlich
64

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Heimlich Loc #64

Load#:

Signature of transporter

Date received: 12-3-13 Time received: 7:38 AM

Truck/Tractor registration: 15999 MA

Load size (cubic yards/tons): 31.09

Receiving facility: Fitchburg Landfill @

Date of shipment: 12/3/13 Time of shipment:

Trailer registration: 79555 MA Ticket 444922

Load#:

Signature of transporter

Date received: 12-3-13 Time received: 9:04 AM

Truck/Tractor registration: 15999 MA

Load size (cubic yards/tons): 33.36

Receiving facility: Fitchburg Landfill @

Date of shipment: 12/3/13 Time of shipment:

Trailer registration: 79555 MA Ticket 444936

Load#:

Signature of transporter

Date received: 12-3-13 Time received:

Truck/Tractor registration: 15999 MA

Load size (cubic yards/tons):

Receiving facility:

Date of shipment: Time of shipment:

Trailer registration: 79555 MA

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444953

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier HEIMLICH TRACTOR TRAILER
Vehicle# 64
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/03/2013 10:42:37	Inbound	CAMIDIO1		Gross	96320 lb
Out	12/03/2013 11:06:56	Outbound	CAMIDIO1		Tare	39480 lb
					Net	56840 lb
					Tons	28.42

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG*Tons 100		28.42	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

Heimlich
64

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Heimlich L+C #64

Load#:

Signature of transporter: [signature]
Date received: 12-3-13
Time received: 7:38 AM
Truck/Tractor registration: 15999 MA
Load size (cubic yards/tons): 31.09

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/3/13
Time of shipment:
Trailer registration: 79555 MA
Ticket 444922

Load#:

Signature of transporter: [signature]
Date received: 12-3-13
Time received: 9:04 AM
Truck/Tractor registration: 15999 MA
Load size (cubic yards/tons): 33.36

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/3/13
Time of shipment:
Trailer registration: 79555 MA
Ticket 444936

Load#:

Signature of transporter: [signature]
Date received: 12-3-13
Time received: 10:42
Truck/Tractor registration: 15999 MA
Load size (cubic yards/tons): 28.42

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/3/13
Time of shipment:
Trailer registration: 79555 MA
Ticket 444953

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

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WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg Rd
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444973

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier HEIMLICH TRACTOR TRAILER
Vehicle# 64 Volume
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

	Time	Scale	Operator	Inbound	Gross	105000 lb
In	12/03/2013 12:14:17	Inbound	CAMIDIO1		Tare	39360 lb
Out	12/03/2013 12:31:13	Outbound	CAMIDIO1		Net	65640 lb
					Tons	32.82

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	32.82	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____

404WM

Heinlich 64

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Heinlich Loc #64

Note: Make additional copies of this page as necessary.

Load#:

Signature of transporter: [signature]
Receiving facility: Fitchburg Landfill @ O

Date received: 12-3-13
Time received: 10:14 pm
Date of shipment:
Time of shipment:

Truck/Tractor registration: 15999 MA
Trailer registration: 79555 MA TICKET NUMBER 3

Load size (cubic yards/tons): 32.82

Load#:

Signature of transporter: [signature]
Receiving facility:

Date received: 12-3-13
Time received:
Date of shipment:
Time of shipment:

Truck/Tractor registration: 15999 MA
Trailer registration: 79555 MA

Load size (cubic yards/tons):

Load#:

Signature of transporter: [signature]
Receiving facility:

Date received: 12-3-13
Time received:
Date of shipment:
Time of shipment:

Truck/Tractor registration: 15999 MA
Trailer registration: 79555 MA

Load size (cubic yards/tons):

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444989

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier HEIMLICH TRACTOR TRAILER
Vehicle# 64
Container
Driver
Check#
Billing # 0000600
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/03/2013 13:36:29	Inbound	CAMIDIO1		Gross	96260 lb
Out	12/03/2013 13:53:22	Outbound	CAMIDIO1		Tare	39300 lb
					Net	56960 lb
					Tons	28.48

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	28.48	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

Heinlich 64

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

J. Load Information

Heimlich L.C #64

Note: Make additional copies of this page as necessary.

Load#:

Signature of transporter: [signature]
Date received: 12-3-13
Time received: 12:14 pm
Truck/Tractor registration: 15999 MA
Load size (cubic yards/tons): 32.82

Receiving facility: Fitchburg Landfill @ O
Date of shipment:
Time of shipment:
Trailer registration: 79555 MA Ticket 444943

Load#:

Signature of transporter: [signature]
Date received: 12-3-13
Time received: 136
Truck/Tractor registration: 15999 MA
Load size (cubic yards/tons): 28.48

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/3/13
Time of shipment:
Trailer registration: 79555 MA Ticket 444989

Load#:

Signature of transporter: [signature]
Date received: 12-3-13
Time received:
Truck/Tractor registration: 15999 MA
Load size (cubic yards/tons):

Receiving facility:
Date of shipment:
Time of shipment:
Trailer registration: 79555 MA

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445006

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier HEIMLICH TRACTOR TRAILER
Vehicle# 64
Container
Driver
Check#
Billing # 0000600
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/03/2013 14:57:27	Inbound	CAMIDIO1		Gross	100460 lb
Out	12/03/2013 15:26:19	Outbound	CAMIDIO1		Tare	39200 lb
					Net	61260 lb
					Tons	30.63

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	30.63	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature 

404WM

Heinlich 64

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

J. Load Information

Heimlich L&C #64

Note:
Make additional copies of this page as necessary.

Load#:

Signature of transporter: [signature]
Receiving facility: Fitchburg Landfill @ O
Date received: 12-3-13
Time received: 12:14 pm
Date of shipment:
Time of shipment:
Truck/Tractor registration: 15999 MA
Trailer registration: 79555 MA Ticket 444973
Load size (cubic yards/tons): 32.82

Load#:

Signature of transporter: [signature]
Receiving facility: Fitchburg Landfill @
Date received: 12-3-13
Time received: 136
Date of shipment: 12/3/13
Time of shipment:
Truck/Tractor registration: 15999 MA
Trailer registration: 79555 MA Ticket 444989
Load size (cubic yards/tons): 28.48

Load#:

Signature of transporter: [signature]
Receiving facility: Fitchburg Landfill @
Date received: 12-3-13
Time received: 257
Date of shipment: 12/3/13
Time of shipment:
Truck/Tractor registration: 15999 MA
Trailer registration: 79555 MA Ticket 445006
Load size (cubic yards/tons): 30.63

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444912

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 25
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/03/2013 06:55:47	Inbound	CAMIDIO1		Gross	98880 lb
Out	12/03/2013 07:12:57	Outbound	CAMIDIO1		Tare	38420 lb
					Net	60460 lb
					Tons	30.23

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	30.23	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

LL 25

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA

Tracking Number

LL 25

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility: Fitchburg Landfill (da)

Date received: 12/3/13 Time received: 6:55 AM

Date of shipment: 12/3/13 Time of shipment:

Truck/Tractor registration: 25000-MA

Trailer registration: 74-MA

Load size (cubic yards/tons): 30.23 Ticket 444912

Load#: 2

Signature of transporter

Receiving facility: 12/3/13

Date received: Time received:

Date of shipment: Time of shipment:

Truck/Tractor registration: 25000-MA

Trailer registration: 74-MA

Load size (cubic yards/tons)

Load#: 3

Signature of transporter

Receiving facility: 12/3/13

Date received: Time received:

Date of shipment: Time of shipment:

Truck/Tractor registration: 25000-MA

Trailer registration: 74-MA

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Page _____ of _____

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444930

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 25
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound	Gross	115000 lb
In	12/03/2013 08:23:30	Inbound	CAMIDIO1		Tare	38140 lb
Out	12/03/2013 08:50:20	Outbound	CAMIDIO1		Net	76860 lb
					Tons	38.43

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Cont Soil RCG-Tons	100	38.43	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature 

404WM

LL 25

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

L+L 25

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

12/3/13 — Date received; 6:55 AM — Time received

25000-MA — Truck/Tractor registration

30.03 — Load size (cubic yards/tons)

Fitchburg Landfill (a) — Receiving facility

12/3/13 — Date of shipment; Time of shipment

74-MA — Trailer registration

Ticket 2/4/912

Load#: 2

Signature of transporter

12/3/13 — Date received; 8:24 AM — Time received

25000-MA — Truck/Tractor registration

Load size (cubic yards/tons)

Fitchburg Landfill (a) — Receiving facility

12/3/13 — Date of shipment; Time of shipment

74-MA — Trailer registration

Ticket 2/4/930

Load#: 3

Signature of transporter

12/3/13 — Date received; 8:23 — Time received

25000-MA — Truck/Tractor registration

Load size (cubic yards/tons) 38.43

Fitchburg Landfill (a) — Receiving facility

12/3/13 — Date of shipment; Time of shipment

74-MA — Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page 1 of 2

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444943

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 25
Container
Driver
Check#
Billing # 0000600
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/03/2013 09:54:32	Inbound	CAMIDIO1		Gross	99300 lb
Out	12/03/2013 10:14:53	Outbound	CAMIDIO1		Tare	38080 lb
					Net	61300 lb
					Tons	30.65

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	30.65	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____

404WM

LL 25

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

LL 25

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: [signature]

Receiving facility: Fitchburg Landfill (a)

Date received: 12/3/13 Time received: 6:55 am

Date of shipment: 12/3/13 Time of shipment:

Truck/Tractor registration: 25000-MA

Trailer registration: 74-MA

Load size (cubic yards/tons): 30.23

Ticket 444912

Load#: 2

Signature of transporter: [signature]

Receiving facility: Fitchburg Landfill (a)

Date received: 12/3/13 Time received: 8:24 am

Date of shipment: 12/3/13 Time of shipment:

Truck/Tractor registration: 25000-MA

Trailer registration: 74-MA

Load size (cubic yards/tons): 38.43

Ticket 444930

Load#: 3

Signature of transporter: [signature]

Receiving facility: Fitchburg Landfill (a)

Date received: 12/3/13 Time received: 9:54 am

Date of shipment: 12/3/13 Time of shipment:

Truck/Tractor registration: 25000-MA

Trailer registration: 74-MA 2

Load size (cubic yards/tons): 30.65

Ticket 444943

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page 1 of 2

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444960

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 25
Container
Driver
Check#
Billing # 00006008
Gen EPA ID NOT REQUIRED

	Time					
In	12/03/2013 11:17:42	Scale	Operator	Inbound	Gross	98380 lb
Out	12/03/2013 11:35:05	Outbound	CAMIDIO1		Tare	38320 lb
			CAMIDIO1		Net	60060 lb
					Tons	30.03

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	30.03	Tons				MA

Total Tax
Total Ticket

ccordance with Massachusetts law, I certify that the contents of this load
ree of any substances not authorized for acceptance at Fitchburg Landfill.

ver's Signature

WM

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

L+L
25

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 4

Signature of transporter: Robe
Receiving facility: Fitchburg Landfill
Date received: 12/3/13
Time received: 11:20
Date of shipment: 12/3/13
Time of shipment:
Truck/Tractor registration: 25000-MA
Trailer registration: 74-MA
Ticket 2444960
Load size (cubic yards/tons): 30.03

Load#: 5

Signature of transporter: Robe
Receiving facility:
Date received:
Time received:
Date of shipment: 12/3/13
Time of shipment:
Truck/Tractor registration: 25000-MA
Trailer registration: 74-MA
Load size (cubic yards/tons):

Load#: 6

Signature of transporter: Robe
Receiving facility:
Date received:
Time received:
Date of shipment: 12/3/13
Time of shipment:
Truck/Tractor registration: 25000-MA
Trailer registration: 74-MA
Load size (cubic yards/tons):

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons):
Total carried forward (cubic yards/tons):
Total carried forward and this page (cubic yards/tons):

Page 2 of 2

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444978

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 25
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound	Gross	101120 lb
In	12/03/2013 12:39:49	Inbound	CAMIDIO1		Tare	37960 lb
Out	12/03/2013 12:58:37	Outbound	CAMIDIO1		Net	63160 lb
					Tons	31.58

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Cont Soil RCG-Tons	100	31.58	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

L+L
25

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 4

Signature of transporter: Robe
Date received: 12/3/13
Time received: 11:20
Truck/Tractor registration: 25000-MA
Load size (cubic yards/tons): 30.03

Receiving facility: Fitchburg Landfill
Date of shipment: 12/3/13
Time of shipment:
Trailer registration: 74-MA
Ticket 444960

Load#: 5

Signature of transporter: Robe
Date received: 12/3/13
Time received: 12:39
Truck/Tractor registration: 25000-MA
Load size (cubic yards/tons): 31.58

Receiving facility: Fitchburg Landfill
Date of shipment: 12/3/13
Time of shipment:
Trailer registration: 74-MA
Ticket 444978

Load#: 6

Signature of transporter: Robe
Date received:
Time received:
Truck/Tractor registration: 25000-MA
Load size (cubic yards/tons):

Receiving facility:
Date of shipment: 12/3/13
Time of shipment:
Trailer registration: 74-MA

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons):
Total carried forward (cubic yards/tons):
Total carried forward and this page (cubic yards/tons):

Page 2 of 2

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444998

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 25
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/03/2013 14:05:30	Inbound	CAMIDIO1		Gross	100260 lb
Out	12/03/2013 14:23:05	Outbound	CAMIDIO1		Tare	37900 lb
					Net	62360 lb
					Tons	31.18

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	31.18	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature 

404WM

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA

Tracking Number L+L 25

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 4

Signature of transporter: Ryder

Date received: 12/3/13 Time received: 11:20

Truck/Tractor registration: 25000-MA

Load size (cubic yards/tons): 30.03

Receiving facility: Fitchburg Landfill

Date of shipment: 12/3/13 Time of shipment:

Trailer registration: 24-MA Ticket 444960

Load#: 5

Signature of transporter: Ryder

Date received: 12/3/13 Time received: 12:39

Truck/Tractor registration: 25000-MA

Load size (cubic yards/tons): 31.58

Receiving facility: Fitchburg landfill

Date of shipment: 12/3/13 Time of shipment:

Trailer registration: 24-MA Ticket 444978

Load#: 6

Signature of transporter: Ryder

Date received: 12/3/13 Time received: 2:05

Truck/Tractor registration: 25000-MA

Load size (cubic yards/tons): 31.18

Receiving facility: Fitchburg Landfill

Date of shipment: 12/3/13 Time of shipment:

Trailer registration: 24-MA Ticket 444998

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page 2 of 2

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444914

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 52
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/03/2013 07:10:22	Inbound	CAMIDIO1		Gross	97660 lb
Out	12/03/2013 07:34:19	Outbound	CAMIDIO1		Tare	37080 lb
					Net	60580 lb
					Tons	30.29

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	30.29	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

Lth#52

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: [signature]
Receiving facility: Fitchburg Landfill @
Date received: 10/3/13
Time received: 7:10 AM
Date of shipment: 12-3-13
Time of shipment:
Truck/Tractor registration: 52000M
Trailer registration: 23M Ticket 4449/4
Load size (cubic yards/tons): 30.29

Load#: 2

Signature of transporter: [signature]
Receiving facility:
Date received:
Time received:
Date of shipment: 12-3-13
Time of shipment:
Truck/Tractor registration: 52000M
Trailer registration: 23M
Load size (cubic yards/tons):

Load#: 3

Signature of transporter: [signature]
Receiving facility:
Date received:
Time received:
Date of shipment: 12-3-13
Time of shipment:
Truck/Tractor registration: 52000M
Trailer registration: 23M
Load size (cubic yards/tons):

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons):

Total carried forward (cubic yards/tons):

Total carried forward and this page (cubic yards/tons):

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444934

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 52 Volume
Container
Driver
Check#
Billing # 0000600
Gen EPA ID NOT REQUIRED

	Time	Scale	Operator	Inbound		
In	12/03/2013 08:49:54	Inbound	CAMIDIO1		Gross	100300 lb
Out	12/03/2013 09:09:22	Outbound	CAMIDIO1		Tare	37080 lb
					Net	63220 lb
					Tons	31.61

Comments

	Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCB-Tons	100	31.61	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____

404WM

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Lth#52

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: [signature]
Date received: 12/3/13
Time received: 7:10 AM
Truck/Tractor registration: 52000M
Load size (cubic yards/tons): 30.29

Receiving facility: Fitchburg Landfill @
Date of shipment: 12-3-13
Time of shipment:
Trailer registration: 23M
Ticket 444914

Load#: 2

Signature of transporter: [signature]
Date received: 12/3/13
Time received: 849 AM
Truck/Tractor registration: 52000M
Load size (cubic yards/tons): 31.61

Receiving facility: Fitchburg Landfill @
Date of shipment: 12-3-13
Time of shipment:
Trailer registration: 23M
Ticket 444934

Load#: 3

Signature of transporter: [signature]
Date received:
Time received:
Truck/Tractor registration: 52000M
Load size (cubic yards/tons):

Receiving facility:
Date of shipment: 12-3-13
Time of shipment:
Trailer registration: 23M

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons):
Total carried forward (cubic yards/tons):
Total carried forward and this page (cubic yards/tons):

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444946

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 52 Volume
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

	Time	Scale	Operator	Inbound		
In	12/03/2013 10:21:39	Inbound	CAMIDIO1		Gross	106960 lb
Out	12/03/2013 10:43:04	Outbound	CAMIDIO1		Tare	37020 lb
					Net	69940 lb
					Tons	34.97

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCB-Tons	100	34.97	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

Lth#52

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: [signature]
Receiving facility: Fitchburg Landfill @
Date received: 12/3/13
Time received: 7:10 AM
Date of shipment: 12-3-13
Time of shipment:
Truck/Tractor registration: 52000MA
Trailer registration: 23MA
Ticket 444914
Load size (cubic yards/tons): 30.29

Load#: 2

Signature of transporter: [signature]
Receiving facility: Fitchburg Landfill @
Date received: 12/3/13
Time received: 849 AM
Date of shipment: 12-3-13
Time of shipment:
Truck/Tractor registration: 52000MA
Trailer registration: 23MA
Ticket 444934
Load size (cubic yards/tons): 31.61

Load#: 3

Signature of transporter: [signature]
Receiving facility: Fitchburg Landfill @
Date received: 12/3/13
Time received: 1023
Date of shipment: 12-3-13
Time of shipment:
Truck/Tractor registration: 52000MA
Trailer registration: 23MA
Ticket 444946
Load size (cubic yards/tons): 34.97

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444960

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 52 Volume
Container
Driver
Check#
Billing # 0000600
Gen EPA ID NOT REQUIRED

	Time	Scale	Operator	Inbbund		
In	12/03/2013 11:52:21	Inbound	CAMIDIO1		Gross	97860 lb
Out	12/03/2013 12:13:37	Outbound	CAMIDIO1		Tare	36980 lb
					Net	60880 lb
					Tons	30.44

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	30.44	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____

404WM

Ltr #52

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 4

Signature of transporter

Fitchburg Landfill @

Receiving facility

12/3/13 — Date received

1152 — Time received

12-3-13 — Date of shipment

Time of shipment

52000MA — Truck/Tractor registration

23MA — Trailer registration

Ticket 1/4/1968

30.44 — Load size (cubic yards/tons)

Load#: 5

Signature of transporter

Receiving facility

Date received

Time received

12-3-13 — Date of shipment

Time of shipment

52000MA — Truck/Tractor registration

23MA — Trailer registration

Load size (cubic yards/tons)

Load#: 6

Signature of transporter

Receiving facility

Date received

Time received

12-3-13 — Date of shipment

Time of shipment

52000MA — Truck/Tractor registration

23MA — Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444983

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 52
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/03/2013 13:21:09	Inbound	CAMIDIO1		Gross	96680 lb
Out	12/03/2013 13:42:01	Outbound	CAMIDIO1		Tare	36960 lb
					Net	59720 lb
					Tons	29.86

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	29.86	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

Lth#52

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 4

Signature of transporter

Fitchburg Landfill @
Receiving facility

12/3/13
Date received

1152
Time received

12-3-13
Date of shipment

Time of shipment

52000MA
Truck/Tractor registration

23MA
Trailer registration

Ticket 444968

30.44
Load size (cubic yards/tons)

Load#: 5

Signature of transporter

Fitchburg Landfill @
Receiving facility

12/3/13
Date received

1:01
Time received

12-3-13
Date of shipment

Time of shipment

52000MA
Truck/Tractor registration

23MA
Trailer registration

Ticket 444983

0986
Load size (cubic yards/tons)

Load#: 6

Signature of transporter

Receiving facility

Date received

Time received

12-3-13
Date of shipment

Time of shipment

52000MA
Truck/Tractor registration

23MA
Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

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WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445005

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 52
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/03/2013 14:49:53	Inbound	CAMIDIO1		Gross	90580 lb
Out	12/03/2013 15:23:40	Outbound	CAMIDIO1		Tare	36820 lb
					Net	53760 lb
					Tons	26.88

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCB-Tons	100	26.88	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____

404WM

Ltw#52

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 4

Signature of transporter

Date received: 12/3/13 Time received: 1152

Truck/Tractor registration: 52000MA

Load size (cubic yards/tons): 30.44

Receiving facility: Fitchburg Landfill @

Date of shipment: 12-3-13 Time of shipment: Ticket 444968

Trailer registration: 23MA

Load#: 5

Signature of transporter

Date received: 12/3/13 Time received: 1:01

Truck/Tractor registration: 52000MA

Load size (cubic yards/tons): 29.86

Receiving facility: Fitchburg Landfill @

Date of shipment: 12-3-13 Time of shipment: Ticket 444983

Trailer registration: 23MA

Load#: 6

Signature of transporter

Date received: 12/3/13 Time received: 2:19

Truck/Tractor registration: 52000MA

Load size (cubic yards/tons): 26.88

Receiving facility: Fitchburg Landfill @

Date of shipment: 12-3-13 Time of shipment: Ticket 445005

Trailer registration: 23MA

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444919

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 91
Container
Driver
Check#
Billing # 0000600
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/03/2013 07:22:49	Inbound	CAMIDIO1		Gross	99740 lb
Out	12/03/2013 07:42:00	Outbound	CAMIDIO1		Tare	37360 lb
					Net	62380 lb
					Tons	31.19

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCB-Tons	100	31.19	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____

404WM

French 91

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1
Signature of transporter: Michael Ry
Date received: 12/3/13
Time received: 11:22 AM
Truck/Tractor registration: MA 855162
Load size (cubic yards/tons): 31.19
Receiving facility: Fitchburg Landfill @
Date of shipment: 12/3/13
Time of shipment
Trailer registration: Ticket #44919

Load#: 2
Signature of transporter: Michael Ry
Date received: 12/3/13
Time received
Truck/Tractor registration: MA 855162
Load size (cubic yards/tons)
Receiving facility
Date of shipment
Time of shipment
Trailer registration

French #91

Load#: 3
Signature of transporter: Michael Ry
Date received: 12/3/13
Time received
Truck/Tractor registration: MA 855162
Load size (cubic yards/tons)
Receiving facility
Date of shipment
Time of shipment
Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

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WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444935

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 91
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/03/2013 08:58:12	Inbound	CAMIDIO1		Gross	100220 lb
Out	12/03/2013 09:35:05	Outbound	CAMIDIO1		Tare	37320 lb
					Net	62900 lb
					Tons	31.45

Comments

	Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	31.45	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

French 91

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1
Signature of transporter: Michael Ny
Date received: 12/3/13
Time received: 7:22 AM
Truck/Tractor registration: MA 855162
Load size (cubic yards/tons): 31.19

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/3/13
Time of shipment:
Trailer registration: Ticket 2424919

Load#: 2
Signature of transporter: Michael Ny
Date received: 12/3/13
Time received: 8:58
Truck/Tractor registration: MA 855162
Load size (cubic yards/tons): 31.45

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/3/13
Time of shipment:
Trailer registration: Ticket 2424935

French #91

Load#: 3
Signature of transporter: Michael Ny
Date received: 12/3/13
Time received:
Truck/Tractor registration: MA 855162
Load size (cubic yards/tons):

Receiving facility:
Date of shipment:
Time of shipment:
Trailer registration:

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444954

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 91
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED
Volume

	Time	Scale	Operator	Inbound		
In	12/03/2013 10:45:13	Inbound	CAMIDIO1		Gross	102400 lb
Out	12/03/2013 11:09:22	Outbound	CAMIDIO1		Tare	37260 lb
					Net	65140 lb
					Tons	32.57

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons 100		32.57	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature M. Ra

404WM

French 91

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1
Signature of transporter: Michael Ng
Date received: 12/3/13
Time received: 7:22 AM
Truck/Tractor registration: MG 855162
Load size (cubic yards/tons): 31.19
Receiving facility: Fitchburg Landfill @
Date of shipment: 12/3/13
Time of shipment:
Trailer registration: Ticket 444919

Load#: 2
Signature of transporter: Michael Ng
Date received: 12/3/13
Time received: 838
Truck/Tractor registration: MG 855162
Load size (cubic yards/tons): 31.45
Receiving facility: Fitchburg Landfill @
Date of shipment: 12/3/13
Time of shipment:
Trailer registration: Ticket 444935

French #91

Load#: 3
Signature of transporter: Michael Ng
Date received: 12/3/13
Time received: 1045
Truck/Tractor registration: MG 855162
Load size (cubic yards/tons): 32.57
Receiving facility: Fitchburg Landfill @
Date of shipment: 12/3/13
Time of shipment:
Trailer registration: Ticket 444954

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444976

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 91
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED
Volume

	Time	Scale	Operator	Inbound		
In	12/03/2013 12:21:41	Inbound	CAMIDIO1		Gross	92180 lb
Out	12/03/2013 12:39:56	Outbound	CAMIDIO1		Tare	37240 lb
					Net	54940 lb
					Tons	27.47

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	27.47	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

French 91

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 4

Signature of transporter: Mike Ry
Date received: 12/3/13
Time received: 1222
Truck/Tractor registration: MA 85162
Load size (cubic yards/tons): 2444

Receiving facility: Fitchburg Landfill (2)
Date of shipment: 12/3/13
Time of shipment:
Trailer registration: TICKH 444976

Load#: 5

Signature of transporter: Mike Ry
Date received: 12/3/13
Time received:
Truck/Tractor registration: MA 85162
Load size (cubic yards/tons):

Receiving facility:
Date of shipment:
Time of shipment:
Trailer registration:

Load#: 6

Signature of transporter: Mike Ry
Date received: 12/3/13
Time received:
Truck/Tractor registration: MA 85162
Load size (cubic yards/tons):

Receiving facility:
Date of shipment:
Time of shipment:
Trailer registration:

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons):
Total carried forward (cubic yards/tons):
Total carried forward and this page (cubic yards/tons):

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WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 444992

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 91
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/03/2013 13:44:54	Inbound	CAMIDIO1		Gross	98180 lb
Out	12/03/2013 14:02:34	Outbound	CAMIDIO1		Tare	37160 lb
					Net	61020 lb
					Tons	30.51

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	30.51	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

M. R

Driver's Signature _____

404WM

French 91

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 4
Signature of transporter: Mike Ry
Date received: 12/3/13
Time received: 1222
Truck/Tractor registration: MH 855162
Load size (cubic ~~yards/tons~~): 24.44
Receiving facility: Fitchburg Landfill (2)
Date of shipment: 12/3/13
Time of shipment:
Trailer registration: Ticket 4444976

Load#: 5
Signature of transporter: Mike Ry
Date received: 12/3/13
Time received: 1:44
Truck/Tractor registration: MH 855162
Load size (cubic yards/tons): 30.51
Receiving facility: Fitchburg Landfill (2)
Date of shipment: 12/3/13
Time of shipment:
Trailer registration: N/A Ticket 4444992

Load#: 6
Signature of transporter: Mike Ry
Date received: 12/3/13
Time received:
Truck/Tractor registration: MH 855162
Load size (cubic yards/tons):
Receiving facility:
Date of shipment:
Time of shipment:
Trailer registration:

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

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WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445008

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/03/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 91
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/03/2013 15:05:40	Inbound	CAMIDIO1		Gross	103360 lb
Out	12/03/2013 15:28:49	Outbound	CAMIDIO1		Tare	37060 lb
					Net	66300 lb
					Tons	33.15

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	33.15	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____

404WM

French 91

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 4

Signature of transporter: Michael Ry
Receiving facility: Fitchburg Landfill @
Date received: 12/3/13
Time received: 1222
Date of shipment: 12/3/13
Time of shipment:
Truck/Tractor registration: MG 85162
Trailer registration: Ticket 444976
Load size (cubic yards/tons): 2747

Load#: 5

Signature of transporter: Michael Ry
Receiving facility: Fitchburg Landfill @
Date received: 12/3/13
Time received: 1:44
Date of shipment: 12/3/13
Time of shipment: —
Truck/Tractor registration: MG 85162
Trailer registration: N/A Ticket 444992
Load size (cubic yards/tons): 30.51

Load#: 6

Signature of transporter: Michael Ry
Receiving facility: Fitchburg Landfill @
Date received: 12/3/13
Time received: 3:07
Date of shipment: 12/3/13
Time of shipment:
Truck/Tractor registration: MG 85162
Trailer registration: Ticket 445008
Load size (cubic yards/tons): 33.15

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

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WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445019

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 67
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound	Gross	100700 lb
In	12/04/2013 07:12:23	Inbound	CAMIDIO1		Tare	35920 lb
Out	12/04/2013 07:40:53	Outbound	CAMIDIO1		Net	64780 lb
					Tons	32.39

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	32.39	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____

404WM

French 6M

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

12/4/13 — Date received

M:13 — Time received

52831 — Truck/Tractor registration

65/T57

32.39 — Load size (cubic yards/tons)

Fitchburg Landfill @ — Receiving facility

12/4/13 — Date of shipment

Time of shipment

Trailer registration

Ticket 445019

Load#: 2

Signature of transporter

12/4/13 — Date received

Time received

52831 — Truck/Tractor registration

65/T57

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

Load#: 3

Signature of transporter

12/4/13 — Date received

Time received

52831 — Truck/Tractor registration

65/T57

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminstery, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445032

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 67
Container
Driver
Check#
Billing # 0000600
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/04/2013 08:54:05	Inbound	CAMIDIO1		Gross	101220 lb
Out	12/04/2013 09:12:26	Outbound	CAMIDIO1		Tare	35860 lb
					Net	65360 lb
					Tons	32.68

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	32.68	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____

404WM

French 67

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: [signature]
Date received: 12/4/13
Time received: 7:13
Truck/Tractor registration: 52831 67/757
Load size (cubic yards/tons): 32.39

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/4/13
Time of shipment:
Trailer registration: Ticket 445019

Load#: 2

Signature of transporter: [signature]
Date received: 12/4/13
Time received: 854
Truck/Tractor registration: 52831 67/757
Load size (cubic yards/tons): 32.68

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/4/13
Time of shipment:
Trailer registration: Ticket 445032

Load#: 3

Signature of transporter: [signature]
Date received: 12/4/13
Time received:
Truck/Tractor registration: 52831 67/757
Load size (cubic yards/tons):

Receiving facility:
Date of shipment:
Time of shipment:
Trailer registration:

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons):
Total carried forward (cubic yards/tons):
Total carried forward and this page (cubic yards/tons):

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445040

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 67
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/04/2013 10:28:56	Inbound	CAMIDIO1		Gross	98560 lb
Out	12/04/2013 10:47:09	Outbound	CAMIDIO1		Tare	35820 lb
					Net	62740 lb
					Tons	31.37

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	31.37	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____

404WM

French 67

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: [signature]
Date received: 12/4/13
Time received: 7:13
Truck/Tractor registration: 52831 63/757
Load size (cubic yards/tons): 32.39

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/4/13
Time of shipment:
Trailer registration: Ticket 445019

Load#: 2

Signature of transporter: [signature]
Date received: 12/4/13
Time received: 854
Truck/Tractor registration: 52831 63/757
Load size (cubic yards/tons): 32.68

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/4/13
Time of shipment:
Trailer registration: Ticket 445032

Load#: 3

Signature of transporter: [signature]
Date received: 12/4/13
Time received: 10:09
Truck/Tractor registration: 52831 63/757
Load size (cubic yards/tons): 31.37

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/4/13
Time of shipment:
Trailer registration: Ticket 445048

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

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WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445060

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 67
Container
Driver
Check#
Billing # 0000600
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/04/2013 12:01:05	Inbound	CAMIDIO1		Gross	102840 lb
Out	12/04/2013 12:15:38	Outbound	CAMIDIO1		Tare	35740 lb
					Net	67100 lb
					Tons	33.55

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	33.55	Tons				MA

Total Tax
Total Ticket

n accordance with Massachusetts law, I certify that the contents of this load
s free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____

404WM

Fiend 6M

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 4

Signature of transporter

Date received: 12/4/13 Time received: 12:01

Truck/Tractor registration: 72831 60/T57

Load size (cubic yards/tons): 33.55

Receiving facility: Fitchburg Landfill @

Date of shipment: 12/4/13 Time of shipment:

Trailer registration: Ticket 445060

Load#: 5

Signature of transporter

Date received: 12/4/13 Time received:

Truck/Tractor registration: 72831 60/T57

Load size (cubic yards/tons)

Receiving facility

Date of shipment Time of shipment

Trailer registration

Load#: 6

Signature of transporter

Date received: 12/4/13 Time received:

Truck/Tractor registration: 72831 60/T57

Load size (cubic yards/tons)

Receiving facility

Date of shipment Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445074

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 67
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/04/2013 13:46:45	Inbound	CAMIDIO1		Gross	103140 lb
Out	12/04/2013 14:04:40	Outbound	CAMIDIO1		Tare	35700 lb
					Net	67440 lb
					Tons	33.72

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	33.72	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____

404WM

Fiend 6M

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: 4

Signature of transporter

Date received: 12/4/13 Time received: 12:01

Truck/Tractor registration: 72831 60/T57

Load size (cubic yards/tons): 33.55

Receiving facility: Fitchburg Landfill @

Date of shipment: 12/4/13 Time of shipment:

Trailer registration: Ticket 445060

Load#: 5

Signature of transporter

Date received: 12/4/13 Time received: 148

Truck/Tractor registration: 72831 60/T57

Load size (cubic yards/tons): 33.72

Receiving facility: Fitchburg Landfill @

Date of shipment: 12/4/13 Time of shipment:

Trailer registration: Ticket 445074

Load#: 6

Signature of transporter

Date received: 12/4/13 Time received:

Truck/Tractor registration: 72831 60/T57

Load size (cubic yards/tons)

Receiving facility

Date of shipment Time of shipment

Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445014

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 25
Container
Driver
Check#
Billing # 0000600
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/04/2013 06:53:57	Inbound	CAMIDIO1		Gross	106000 lb
Out	12/04/2013 07:10:52	Outbound	CAMIDIO1		Tare	38640 lb
					Net	67360 lb
					Tons	33.68

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	33.68	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

Rob

LTL25

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: Rob

Receiving facility: Fitchburg Landfill @

Date received: 12/4/13 Time received: 653

Date of shipment: 12/4/13 Time of shipment:

Truck/Tractor registration: 25000 - MA

Trailer registration: 74-MA Ticket 444501

Load size (cubic yards/tons): 33.68

Load#: 2

Signature of transporter: Rob

Receiving facility: 12/4/13

Date received: Time received:

Date of shipment: Time of shipment:

Truck/Tractor registration: 25000 - MA

Trailer registration: 74-MA

Load size (cubic yards/tons):

Load#: 3

Signature of transporter: Rob

Receiving facility: 12/4/13

Date received: Time received:

Date of shipment: Time of shipment:

Truck/Tractor registration: 25000 - MA

Trailer registration: 74-MA

Load size (cubic yards/tons):

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page 1 of 2

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445024

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 25 Volume
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

	Time	Scale	Operator	Inbound		
In	12/04/2013 08:13:54	Inbound	CAMIDIO1		Gross	98060 lb
Out	12/04/2013 08:31:43	Outbound	CAMIDIO1		Tare	38580 lb
					Net	59480 lb
					Tons	29.74

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	29.74	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

Rod

LTL25

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: Rob C

Receiving facility: Fitchburg Landfill @

Date received: 12/4/13 Time received: 6:53

Date of shipment: 12/4/13 Time of shipment:

Truck/Tractor registration: 25000 - MA

Trailer registration: 74-MA Ticket 445012

Load size (cubic yards/tons): 33.68

Load#: 2

Signature of transporter: Rob C

Receiving facility: Fitchburg Landfill @

Date received: 12/4/13 Time received: 8 AM

Date of shipment: 12/4/13 Time of shipment:

Truck/Tractor registration: 25000 - MA

Trailer registration: 74-MA Ticket 445024

Load size (cubic yards/tons): 29.44

Load#: 3

Signature of transporter: Rob C

Receiving facility: 12/4/13

Date received: Time received:

Date of shipment: Time of shipment:

Truck/Tractor registration: 25000 - MA

Trailer registration: 74-MA

Load size (cubic yards/tons):

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page 1 of 2

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445040

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 25
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/04/2013 09:35:05	Inbound	CAMIDIO1		Gross	103960 lb
Out	12/04/2013 09:52:20	Outbound	CAMIDIO1		Tare	38520 lb
					Net	65440 lb
					Tons	32.72

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Cont Soil RCG-Tons	100	32.72	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

Rob

LTL25

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter: Rob

Date received: 12/4/13 Time received: 653

Truck/Tractor registration: 25000 - MA

Load size (cubic yards/tons): 33.68

Receiving facility: Fitchburg Landfill @

Date of shipment: 12/4/13 Time of shipment: Ticket 445012

Trailer registration: 74-MA

Load#: 2

Signature of transporter: Rob

Date received: 12/4/13 Time received: 8 PM

Truck/Tractor registration: 25000 - MA

Load size (cubic yards/tons): 29.44

Receiving facility: Fitchburg Landfill @

Date of shipment: 12/4/13 Time of shipment: Ticket 445024

Trailer registration: 74-MA

Load#: 3

Signature of transporter: Rob

Date received: 12/4/13 Time received: 935

Truck/Tractor registration: 25000 - MA

Load size (cubic yards/tons): 32.42

Receiving facility: Fitchburg Landfill @

Date of shipment: 12/4/13 Time of shipment: Ticket 445040

Trailer registration: 74-MA

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page 1 of 2

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445051

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 25
Container
Driver
Check#
Billing # 0000608)
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/04/2013 10:59:53	Inbound	CAMIDIO1		Gross	99640 lb
Out	12/04/2013 11:10:04	Outbound	CAMIDIO1		Tare	38700 lb
					Net	60940 lb
					Tons	30.47

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	30.47	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature _____

404WM

L+L 05

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 4

Signature of transporter

Receiving facility: Fitchburg Landfill (6)

Date received: 10/4/13 — Time received: 11:00

Date of shipment: 12/4/13 — Time of shipment

Truck/Tractor registration: 25000 - MA

Trailer registration: 74-MA — Ticket #44505

Load size (cubic yards/tons): 30.47

Load#: 5

Signature of transporter

Receiving facility

Date received — Time received

Date of shipment: 12/4/13 — Time of shipment

Truck/Tractor registration: 25000 - MA

Trailer registration: 74-MA

Load size (cubic yards/tons)

Load#: 6

Signature of transporter

Receiving facility

Date received — Time received

Date of shipment: 12/4/13 — Time of shipment

Truck/Tractor registration: 25000 - MA

Trailer registration: 74-MA

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page 2 of 2

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Reprint
Ticket# 445063

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 25
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/04/2013 12:24:04	Inbound	CAMIDIO1		Gross	101480 lb
Out	12/04/2013 12:41:45	Outbound	CAMIDIO1		Tare	38440 lb
					Net	63040 lb
					Tons	31.52

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCB-Tons	100	31.52	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

L+L 05

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile #
101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 4

Signature of transporter: Robe
Date received: 10/4/13
Time received: 11:00
Truck/Tractor registration: 25000 - MA
Load size (cubic yards/tons): 30.47

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/4/13
Time of shipment:
Trailer registration: 74-MA Ticket 445051

Load#: 5

Signature of transporter: Robe
Date received: 10/4/13
Time received: 10:24
Truck/Tractor registration: 25000 - MA
Load size (cubic yards/tons): 31.52

Receiving facility: Fitchburg Landfill @
Date of shipment: 12/4/13
Time of shipment:
Trailer registration: 74-MA Ticket 445063

Load#: 6

Signature of transporter: Robe
Date received:
Time received:
Truck/Tractor registration: 25000 - MA
Load size (cubic yards/tons):

Receiving facility:
Date of shipment: 12/4/13
Time of shipment:
Trailer registration: 74-MA

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons):
Total carried forward (cubic yards/tons):
Total carried forward and this page (cubic yards/tons):

Page 2 of 2

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445076

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier L and L TRACTOR TRAILER
Vehicle# 25
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/04/2013 13:56:49	Inbound	CAMIDIO1		Gross	103640 lb
Out	12/04/2013 14:15:32	Outbound	CAMIDIO1		Tare	38300 lb
					Net	65260 lb
					Tons	32.63

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons 100		32.63	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

L+L 05

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 4

Signature of transporter

Receiving facility: Fitchburg Landfill @

10/4/13 — Date received; 11:00 — Time received

12/4/13 — Date of shipment; Time of shipment

25000 - MA — Truck/Tractor registration; 74-MA — Trailer registration; Ticket 445051

30.47 — Load size (cubic yards/tons)

Load#: 5

Signature of transporter

Receiving facility: Fitchburg Landfill @

10/4/13 — Date received; 10:24 — Time received

12/4/13 — Date of shipment; Time of shipment

25000 - MA — Truck/Tractor registration; 74-MA — Trailer registration; Ticket 445063

31.52 — Load size (cubic yards/tons)

Load#: 6

Signature of transporter

Receiving facility: Fitchburg Landfill @

10/4/13 — Date received; 15:6 — Time received

12/4/13 — Date of shipment; Time of shipment

25000 - MA — Truck/Tractor registration; 74-MA — Trailer registration; Ticket 445076

32.63 — Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page 2 of 2

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA 01473
PH: (978) 874-0037

Original
Ticket# 445021

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 59
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/04/2013 07:37:49	Inbound	CAMIDIO1		Gross	97140 lb
Out	12/04/2013 08:00:32	Outbound	CAMIDIO1		Tare	40360 lb
					Net	56780 lb
					Tons	28.39

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons 100		28.39	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

Fitch 59

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

WLF #59

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility: Fitchburg Landfill

Date received: 12/4/13 | Time received: 7:37

Date of shipment: 12/4/13 | Time of shipment

Truck/Tractor registration: 54760 MA

Trailer registration: TICLH 4/45051

Load size (cubic yards/tons): 28.39

Load#: 2

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment: 12/4/13 | Time of shipment

Truck/Tractor registration: 54760 MA

Trailer registration

Load size (cubic yards/tons)

Load#: 3

Signature of transporter

Receiving facility

Date received | Time received

Date of shipment: 12/4/13 | Time of shipment

Truck/Tractor registration: 54760 MA

Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445016

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 88
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator			
In	12/04/2013 07:03:40	Inbound	CAMIDIO1	Inbound	Gross	98160 lb
Out	12/04/2013 07:36:53	Outbound	CAMIDIO1		Tare	37020 lb
					Net	61140 lb
					Tons	30.57

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	30.57	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

French 88

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

12-4-13 — Date received
M:04 — Time received
85779 — Truck/Tractor registration
30.57 — Load size (cubic yards/tons)

Fitchburg landfill — Receiving facility
10/4/13 — Date of shipment
Time of shipment
75039 — Trailer registration
Ticket 4415016

Load#: 2

Signature of transporter

12-4-13 — Date received
Time received
85779 — Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment
Time of shipment
75039 — Trailer registration

Load#: 3

Signature of transporter

12-4-13 — Date received
Time received
85779 — Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment
Time of shipment
75039 — Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RC1 Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445030

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 88
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/04/2013 08:45:26	Inbound	CAMIDIO1		Gross	99700 lb
Out	12/04/2013 09:10:47	Outbound	CAMIDIO1		Tare	36960 lb
					Net	62740 lb
					Tons	31.37

Comments

	Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	31.37	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

French 88

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

12.4.13 — Date received
M:04 — Time received
85779 — Truck/Tractor registration
30.57 — Load size (cubic yards/tons)

Fitchburg landfill — Receiving facility
10/4/13 — Date of shipment
Time of shipment
75039 — Trailer registration
Ticket 2445016

Load#: 2

Signature of transporter

12-4-13 — Date received
8:45 — Time received
85779 — Truck/Tractor registration
31.37 — Load size (cubic yards/tons)

Fitchburg landfill — Receiving facility
10/4/13 — Date of shipment
Time of shipment
75039 — Trailer registration
Ticket 2445030

Load#: 3

Signature of transporter

12-4-13 — Date received
Time received
85779 — Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment
Time of shipment
75039 — Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445045

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 88 Volume
Container
Driver
Check#
Billing # 0000600
Gen EPA ID NOT REQUIRED

	Time	Scale	Operator	Inbound		
In	12/04/2013 10:16:11	Inbound	CAMIDIO1		Gross	98960 lb
Out	12/04/2013 10:37:05	Outbound	CAMIDIO1		Tare	36920 lb
					Net	62040 lb
					Tons	31.02

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	31.02	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

French 88

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

12-4-13 — Date received
11:04 — Time received
85779 — Truck/Tractor registration
30.57 — Load size (cubic yards/tons)

Fitchburg Landfill @ — Receiving facility
10/4/13 — Date of shipment
Time of shipment
75039 — Trailer registration
Ticket 2445016

Load#: 2

Signature of transporter

12-4-13 — Date received
8:45 — Time received
85779 — Truck/Tractor registration
31.37 — Load size (cubic yards/tons)

Fitchburg Landfill @ — Receiving facility
10/4/13 — Date of shipment
Time of shipment
75039 — Trailer registration
Ticket 2445030

Load#: 3

Signature of transporter

12-4-13 — Date received
10:16 — Time received
85779 — Truck/Tractor registration
31.02 — Load size (cubic yards/tons)

Fitchburg Landfill @ — Receiving facility
10/4/13 — Date of shipment
Time of shipment
75039 — Trailer registration
Ticket 2445045

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445057

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 88
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator			
In	12/04/2013 11:49:28	Inbound	CAMIDIO1	Inbound	Gross	105400 lb
Out	12/04/2013 12:11:01	Outbound	CAMIDIO1		Tare	36880 lb
					Net	68520 lb
					Tons	34.26

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons 100		34.26	Tons				MA

Total Tax
Total Ticket

...sachusetts law, I certify that the contents of this load
...s not authorized for acceptance at Fitchburg Landfill.

FTCAL 88

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 4

Signature of transporter

Receiving facility: Fitchburg Landfill

Date received: 12-4-13 | Time received: 11:49

Date of shipment: 12/4/13 | Time of shipment:

Truck/Tractor registration: 85779

Trailer registration: 75039 Ticket #45057

Load size (cubic yards/tons): 34.26

Load#: 5

Signature of transporter

Receiving facility

Date received: 12-4-13 | Time received:

Date of shipment: | Time of shipment:

Truck/Tractor registration: 85779

Trailer registration: 75039

Load size (cubic yards/tons)

Load#: 6

Signature of transporter

Receiving facility

Date received: 12-4-13 | Time received:

Date of shipment: | Time of shipment:

Truck/Tractor registration: 85779

Trailer registration: 75039

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445068

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 88 Volume
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

	Time	Scale	Operator	Inbound		
In	12/04/2013 13:17:27	Inbound	CAMIDIO1		Gross	100240 lb
Out	12/04/2013 13:38:03	Outbound	CAMIDIO1		Tare	36820 lb
					Net	63420 lb
					Tons	31.71

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	31.71	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

Ficnal 88

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 4

Signature of transporter

12-4-13 — Date received

11:49 — Time received

85779 — Truck/Tractor registration

34.26 — Load size (cubic yards/tons)

Fitchburg Landfill — Receiving facility

12/4/13 — Date of shipment

Time of shipment

75039 — Trailer registration

Ticket #445057

Load#: 5

Signature of transporter

12-4-13 — Date received

1:14 — Time received

85779 — Truck/Tractor registration

31.91 — Load size (cubic yards/tons)

Fitchburg Landfill — Receiving facility

12/4/13 — Date of shipment

Time of shipment

75039 — Trailer registration

Ticket #445068

Load#: 6

Signature of transporter

12-4-13 — Date received

Time received

85779 — Truck/Tractor registration

Load size (cubic yards/tons)

Receiving facility

Date of shipment

Time of shipment

75039 — Trailer registration

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Phs (978) 874-0037

Original
Ticket# 445082

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/04/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 88
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

Volume

	Time	Scale	Operator	Inbound		
In	12/04/2013 14:50:00	Inbound	CAMIDIO1		Gross	97080 lb
Out	12/04/2013 15:13:42	Outbound	CAMIDIO1		Tare	36740 lb
					Net	60340 lb
					Tons	30.17

Comments

Product		LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	30.17	Tons				MA

Total Tax
Total Ticket

In accordance with Massachusetts law, I certify that the contents of this load is free of any substances not authorized for acceptance at Fitchburg Landfill.

Driver's Signature

404WM

Fitch 88

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Waste Profile # 101450MA
Tracking Number

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 4

Signature of transporter

12-4-13 Date received — 1149 Time received

85779 Truck/Tractor registration

34.26 Load size (cubic yards/tons)

Fitchburg Landfill Receiving facility

12/4/13 Date of shipment — Time of shipment

75039 Trailer registration — Ticket 445057

Load#: 5

Signature of transporter

12-4-13 Date received — 1:1M Time received

85779 Truck/Tractor registration

31.11 Load size (cubic yards/tons)

Fitchburg Landfill Receiving facility

12/4/13 Date of shipment — Time of shipment

75039 Trailer registration — Ticket 445068

Load#: 6

Signature of transporter

12-4-13 Date received — 313 Time received

85779 Truck/Tractor registration

30.14 Load size (cubic yards/tons)

Fitchburg Landfill Receiving facility

12/4/13 Date of shipment — Time of shipment

75039 Trailer registration — Ticket 445082

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Page _____ of _____

Total carried forward and this page (cubic yards/tons)

WASTE MANAGEMENT

RCI Fitchburg LF
101 Fitchburg RD
Westminster, MA, 01473
Ph: (978) 874-0037

Original
Ticket# 445094

Customer Name WLFRENCH-101450MA WL FRENCH E
Ticket Date 12/05/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 101450MA (CONTAMINATED SOIL (UNLINED))
Generator NE-USARMYCORPDEVENS US ARMY CORP OF ENGINEERS - NED

Carrier FRENCH TRACTOR TRAILERS
Vehicle# 67
Container
Driver
Check#
Billing # 0000608
Gen EPA ID NOT REQUIRED

	Time	Scale	Operator
In	12/05/2013 07:00:50	Inbound	CAMIDI01
Out	12/05/2013 07:22:58	Outbound	CAMIDI01

Comments

						Inbound	Gross	98660 lb
							Tare	62680 lb
							Net	35980 lb
							Tons	31.34

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Cont Soil RCB-Tons 100		31.34	Tons				MA

Total Tax
Total Ticket

cordance with Massachusetts law, I certify that the contents of this load
ee of any substances not authorized for acceptance at Fitchburg Landfill.

er's Signature

Norwell #10-1450 MA LF

France 64

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Tracking Number [redacted]2

J. Load Information

Note: Make additional copies of this page as necessary.

Load#: 1

Signature of transporter

Receiving facility: Fitchburg Landfill

Date received: 10/5/13 | Time received: 10 M:00

Date of shipment: 10/5/13 | Time of shipment: Ticket 445094

Truck/Tractor registration: D2831 | Trailer registration: 65/750

Load size (cubic yards/tons): 31.34

Load#: _____

Signature of transporter | Receiving facility

Date received | Time received | Date of shipment | Time of shipment

Truck/Tractor registration | Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter | Receiving facility

Date received | Time received | Date of shipment | Time of shipment

Truck/Tractor registration | Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

WLF 205

APPENDIX I

Daily Quality Control Reports

(See CD Included Separately)

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 001 Date: 09 AUG 13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: cloudy, rain

Precipitation: Yes Temp: 70 Min. 80 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.5	Sovereign	Site Supervisor
Laura Simkins	8.0	Sovereign	Wetland Specialist
Sam Landry	8.0	Sovereign	Environmental Scientist
John Curran	8.5	RC+D	Site Supervisor
Robert Ponte	8.5	RC+D	Laborer
Cesar Franco	8.5	RC+D	Operator
Lavrushuo Yevgeniy	8.5	RC+D	Laborer
Zachary Reid	8.5	RC+D	Laborer
John Hill	8.5	RC+D	Mechanic
Jim Heneburg	3.0	RC+D	Site Supervisor
Yvugeny Lavrusko			

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	Daily	6.0	2.0	
CAT 307C Excavator		" "	4.0	4.0	
Global Pumps					
Boat/Motor					

3. Work performed today:
Initial MOB to site, site equipment was delivered to the site along with office trailer and several loads of stone/sand. The access road to the dam was improved and the 2 pumps were placed down. The access ramp to pond inlet was improved with stone/sand. Rain event surface water sampling was conducted.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
Gravel - 3 tri-axel loads
Rip-rap - 1 load
Fine SAND - 1 load

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Morning tailgate meeting conducted, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

8/9/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 002 Date: 12AUG13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: partly sunny

Precipitation: none Temp: 60 Min. 60 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Boraviec	9.0	Sovereign	Site Supervisor
John Hill	6.0	RC+D	Mechanic
Robert Ponte	9.0	RC+D	Laborer
Cesar Franc	9.0	RC+D	Operator
John Curran	9.0	RC+D	Site Supervisor

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	Daily	6.0	3.0	
CAT 307C Excavator	↓	↓	6.0	3.0	
Global pumps	↓	↓			
Boat/Motor	↓	↓			
TL230 skid steer	8/12/13 ↓	↓	4.0	5.0	

3. Work performed today:
Work was performed on the pump intakes adjacent to the dam. Pump-1 and Pump-2 inlets were deployed. Pump-2 (~~farest away~~ closest ~~from~~ to dam) intake consists of one(1) 40'; two(2) 20' hard pipes and one(1) 10' section of flex piping. Pump-1 intake set as one(1) 40' section w/intake screen and (1) 20' section (this intake is not final configured @ EOB. Dam access road was repaired using skidsteer.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Morning tailgate safety meeting was conducted, review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

8/12/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 003 Date: 13AUG13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mosty sunny

Precipitation: ~~none~~ it rain @times Temp: 65 Min. 70 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borawiec	9.5	Sovereign	Site Supervisor
John Curran	9.5	RC+D	Site Supervisor
Rachel Leary	5.5	Sovereign	PM
Cesar Franco	9.5	RC+D	operator
Tony Rego	9.5	RC+D	laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	Daily	4.0	5.0	
CAT 307C Excavator			4.0	5.0	
Global Pumps					
Boat/Motor					
TL 230 skid steer	8/10/13		4.0	5.0	

3. Work performed today:
Pump-1 intake was constructed and consists of one(1) 40', two(2) 20', and one(1) 10' flex sections. Two (2) 6" dia cast concrete structures were placed downstream of dam and filled w/rip-rap (splash pad). the pump intakes were fitted w/ buoy's to float and were set on top of tote-cage to elevate filter locations w/respect to to pond bottom Sand bags (standard and super-sack sized) were made-up and staged.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Completed morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

8/13/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 004 Date: 14AUG-13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Mostly sunny

Precipitation: none Temp: 60 Min. 75 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borawiec	8.5	Sovereign	Site Supervisor
John Curran	8.5	RC+D	Site Supervisor
Cesar Franc	8.5	RC+D	Operator
Robert Ponte	8.5	RC+D	Laborer
Tony Rego	8.5	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	Daily	6.0	2.5	
CAT 307C Excavator	↓	↓	4.0	4.5	
Global Pumps					
Boat/Motor					
TL 230 Skidsteer	8/13/13 ↓		2.0	6.5	

3. Work performed today:
Installed sandbag dam in PSP inlet, kept constant water level @ top of rock of the inlet structure. Began pond dewatering @ 11:45 using both pumps P-1 + P-2 running @ ~1500 rpm each. Pumps were left on @ departure.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
Ayer DPW on-site today - Mark Wetzel and Dave Jaspersen. They suggested contacting police to let them know of equipment presence.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

8/14/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 005 Date: 15AUG13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Mostly sunny

Precipitation: None Temp: 55 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	9.75	Sovereign	Site Supervisor
Laura Sinkins	6.5	Sovereign	Wetland specialist
Erin Foley	6.5	Sovereign	Env. Sci.
Rachel Leary	6.75	Sovereign	PM
Andrew Thompson	6.5	Normandeau	Biologist
Jim Henebury		RC+D	Site Supervisor
John Hill	1.75	RC+D	Mechanic

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	Daily	2.0	6.0	
CAT 307C Excavator	↓ ↓	↓	2.0	6.0	
Global Pumps					
Boat/Motor					
TL230 Skidsteer	8/12/13 → 8/15/13		2.0	6.0	
Magnum Generator	8/15/13 → present		4.0	2.0	

3. Work performed today:
Tow-behind generator on-site and was wired in to job trailer. Work continued with the draw-down of the pond. Surface water samples were collected and submitted Normandeau staff (Andrew) on-site for biological survey.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.

5. Test performed as required by plans and/or specifications:
Surface water quality sampling

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Morning tailgate safety meeting was conducted, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

8/15/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 006 Date: 16 AUG 13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny

Precipitation: none Temp: 55 Min. 80 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	7.0	Sovereign	Site Supervisor
Laura Simkins	5.75	Sovereign	Wetland Specialist
Andrew Thompson	5.0	Normandeau	Biologist
Jim Heneberry	3.0	RCTD	Site Supervisor
Tony Rego	3.0	RCTD	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	Daily	1.0	2.0	
CAT 307C Excavator	↓	↓	1.0	2.0	
Global Pumps	↓	↓			
Boat/Motor	↓	↓			
Magnum Generator	8/15/13 ↓	↓	7.0	0.0	

3. Work performed today:
Continued to drawdown Plow Shop Pond. Normandeau on-site to conduct biological surveys. Surface water quality samples were collected. Additional sandbags were added to pond inlet dam.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.

5. Test performed as required by plans and/or specifications:
Surface water Quality samples were collected

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Morning tailgate safety meeting was conducted, review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
RC+D to monitor pumps over weekend.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/16/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 007 Date: 19AUG13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny

Precipitation: none Temp: 60 Min. 80 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	9.0	SovCon	S. Supervisor
Laura Simkins	9.0	SovCon	Wetland Specialist
Don Mason	6.5	Normandeau	Biologist
Jim Heneburg	4.0	RC+D	S. Supervisor
Lucrecia Ribeiro	4.0	RC+D	Operator
Tony Rego	4.0	RC+D	Laborer
Arnold Johnston	8.0	WSP	Surveyor
Samuel Johnston	8.0	WSP	Surveyor

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	Daily	1.0	3.0	
CAT 307 Excavator	8/9/13 → 8/19/13		1.0	3.0	
Global Pumps	8/9/13 → present				
Boat/ Motor	8/9/13				
Magnum Generator	8/15/13		9.0	0.0	
CAT 330C Excavator	8/19/13		2.0	2.0	
John Deere 270 Excavator			2.0	2.0	

3. Work performed today:
Continue with pond dewatering. Pump P-3 was shut down by RLTD over the weekend. MassDEP on-site to perform site walk. Long-Stick excavator was delivered on-site. We had an railroad flagmen while the excavator transversed the railroad property. Inspection of pond inlet dam reveled that water is upwelling beneath the large super-sacks. Surface water Quality samples were collected/submitted.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.

5. Test performed as required by plans and/or specifications:
Surface water Quality testing was performed

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

8/19/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 008 Date: 20AUG 13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Mostly sunny

Precipitation: none Temp: 65 Min. 85 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Bonovich	8.0	SouCon	S. Supervisor
Matt Bedford	4.0	SouCon	H+S Officer
Laura Simkins	4.75	SouCon	Wetland Specialist
Don Mason	4.0	Normandeau	Biologist

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	Daily	0.0		
Global Pumps Boat/Motor	↓	↓			
Magnum Generator	8/15/13		0.0		
CAT 320C Excavator	8/19/13		0.0		
J. Deere 270 Excavator	8/19/13 ↓	↓	0.0		

3. Work performed today:
Continue with Pond drawdown. Surface Water Quality Testing was conducted. Downloaded site photographs and renamed them accordingly.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.

5. Test performed as required by plans and/or specifications:
Surface Water Quality testing.

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

Sovereign Consulting QC Representative

8/20/13
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 009 Date: 21AUG13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mostly sunny

Precipitation: None Temp: 105 Min. 89 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
~~Alex~~			
Bill Brouwiec	10.5	Sovereign	Site Superintendent
Jim Heneberry	8.0	RC+D	Contact Rep
Laura Simkins	5.0	Sovereign	Wetland Specialist
Don Mason	5.0	Normandeau	Biologist
Luciano Ribeiro	10.5	RC+D	Operator
Tony Rego	10.5	RC+D	Laborer
Ellen Iorio	2.0	USACE	USACE
Jim Morocco	2.0	USACE	USACE
Mark Walsh	2.0	USACE	USACE

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	Daily	4.0	5.0	
Gilson Pumps					
Boat/Motor					
Magnum Generator	8/15/13		10.5	0.0	
CAT 322C Excavator	8/19/13		4.0	5.0	
J. Deere 270 Excavator			4.0	5.0	

3. Work performed today:
CQM- preparatory-phase meetings w/ corps.
Continued w/site prep activities and GPS calibration
Surface Water samples were collected.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.
P- for SAFI MOB/Site Prep
SAFI Removal Action
Red Cove MOB/Site Prep
Red Cove Removal Action

5. Test performed as required by plans and/or specifications:
Surface Water sample collection

6. Material received:
One trailer load of timber mats

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
N/A

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
RC+D would like to construct access road between STLF and SA71. If would be at their cost, they would install silt fencing, deploy piping over swale, and restore site. Marc C. will ask Corp. USACE responded and is ok so long as the stipulations are met.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

8/21/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 010 Date: 22AUG13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: mostly sunny
Precipitation: none Temp: 65 Min. 85 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	11.25	Sovereign	S. Superintendent
Laura Sinkins	4.0	Sovereign	Wetland Specialist
John Curran	11.25	RC+D	S. Superintendent
Luciano Ribeiro	11.25	RC+D	Operator
Alex Ribeiro	11.25	RC+D	Operator/Laborer
Tony Rego	11.25	RC+D	Laborer
Don Mason	4.0	Normandeau	Biologist

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 > present	Daily	6.0	5.25	
Global Pumps	↓	↓			
Boat/Motor	↓	↓			
Magnum Generator	8/15/13	↓	11.25	0.0	
CAT 320C Excavator	8/19/13	↓	2.0	9.25	
J. Deere 270 Excavator	↓	↓	2.0	9.25	
Mini-Excavator	8/22/13	↓	6.0	5.25	

3. Work performed today:
Site work → improved access roadway between SHLF and SA 71. Made repairs to the pond inlet dam by clearing the base and adding a second level of sandbags.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.
None

5. Test performed as required by plans and/or specifications:
Surface water sampling was performed

6. Material received:
Trailer-load of straw wattles.

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Performed Morning tailgate safety meeting. Reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

8/20/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 011 Date: 23AUG13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: mostly sunny
Precipitation: none Temp: 60 Min. 80 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.75	SoCon	S-Superintendent
Laura Simkins	4.0	SoCon	Wetland Specialist
Don Mason	4.0	Normandeau	Biologist
Jeff Brunelle	3.5	Nobis	EPA-Rep
Luciano Ribeiro	8.0	RC+D	Operator
Tony Rego	8.0	RC+D	Laborer
Alex Ribeiro	8.0	RC+D	Operator/Laborer
Denis Alix	4.0	S+M farms	Laborer/Subcontractor
Jose Navarro	4.0	S+M farms	Laborer/Subcontractor
Norman Thibodby	4.0	S+M farms	Laborer/Subcontractor

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	Daily	0.0	8.0	
Global Pumps	↓	↓			
Boat/Motor	↓	↓			
Magnum Generator	8/15/13	↓	8.75	0.0	
CAT 322C Excavator	8/19/13	↓	0.75	6.0	
J. Deere 270 Excavator	↓	↓	0.75	6.0	
Mini-Excavator	8/22/13	↓	4.75	4.0	

3. Work performed today:
Silt fencing was installed in the vicinity of the newly constructed access road and a staging area for the sediments was established upland. Snow fencing was installed around pond perimeter.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.
None

5. Test performed as required by plans and/or specifications:
Surface water sampling was conducted

6. Material received:
Snow fencing and Grade Stakes
Two (2) Porta-Johns

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

[signature] 8/23/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 012 Date: 26 AUG 13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly cloudy

Precipitation: none Temp: 65 Min. 60 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	9.5	Sovereign	S. Supervisor
John Curran	8.5	RC+D	S. Supervisor
Laura Simkins	7.0	SovCon	Wetland Specialist
Sam Landry	5.0	SovCon	Env Sci
Brittany Smith	5.0	SovCon	Env Sci
Erin Foley	5.0	SovCon	Env Sci
Matt Bedford	3.0	SovCon	H+S officer
Andrew Thompson	4.0	Normandeau	Biologist
Luciano Ribeiro	8.5	RC+D	Operator
Alex Ribeiro	8.5	RC+D	Operator / Laborer
Tony Rego	8.5	RC+D	Laborer
Antonio C.C.	8.5	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	Daily	2.0	6.5	
Global Pumps	↓	↓			
Boat Motor	↓	↓			
Magnum Generator	8/15/13	↓	9.5	0.0	
CAT 320C Excavator	8/19/13	↓	6.5	2.0	
J. Deere 270 Excavator	↓	↓	8.0	0.5	
Yanmar ic 45 ATV	8/26/13	↓	2.0	6.5	
Yanmar C50r ATV	↓	↓	2.0	6.5	
Mini-excavator	8/22/13	↓	2.0	6.5	

3. Work performed today:
-Installed straw wattles just outside of SA71. Began remedial excavation @ SA71. Sampled grids 09, 10, and 08.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
Surface Water Sampling and confirmatory post-excavation sediment sampling

6. Material received:
None

7. Submittals Reviewed: None

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
N/A

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted Morning tailgate meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

8/26/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 013 Date: 27AUG-13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: mostly sunny
Precipitation: none Temp: 70 Min. 85 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	9.0	SovCon	Sr Superintendant
John Curran	8.5	RC+D	S. Superintendant
Laura Simkins	5.5	SovCon	Wetland Specialist
Rachel Leary	5.5	SovCon	PM
Don Mason	4.0	Normandeau	Biologist
Jeff Dulcahan	4.0	RC+D	PM
Lucciano Ribeiro	8.5	RC+D	Operater
Anthano C.C.	8.5	RC+D	Laborer
Alex Ribeiro	8.5	RC+D	Operater/Laborer
Tony Rego	8.5	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	daily	6.0	2.5	
Global Pumps	↓				
Boat/Motor	↓				
Magnum Generator	8/5/13		9.0	0.0	
CAT 322C Excavator	8/9/13		6.0	2.5	
J. Deere 270 Excavator	↓		6.0	2.5	
Yanmar iC45	8/26/13		6.0	2.5	
Yanmar C50R	↓		6.0	2.5	
mini-excavator	8/22/13		2.5	6.0	
J. Deere 250D dump	8/27/13		6.0	2.5	
CAT D5 Dozer	8/07/13		6.0	2.5	

3. Work performed today:
Work continued on the SHLF-Plow Shop Pond access road. Sections of chain-link fencing were removed at Reed Cove and surface water samples were collected. Additional hay waffles were installed @ SA71.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.
None

5. Test performed as required by plans and/or specifications:
Collected Surface Water Samples

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

8/27/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 014 Date: 28AUG13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny

Precipitation: none Temp: 65 Min. 85 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	9.5	SouCon	S. Supervisor
Laura Sinkins	4.0	SouCon	Wetland Specialist
Brittany Smith	7.75	SouCon	Env Sci
Erin Foley	7.75	SouCon	Env Sci
Rachel Leary	6.75	SouCon	PM
John Curran	8.0	RC+D	S. Supervisor
Marc Cicalese	3.5	SouCon	Program Manager
Antonio C.C.	9.0	RC+D	Operator/Laborer
Alex Ribeiro	9.0	RC+D	Operator
Tony Rego	9.0	RC+D	Laborer
Luciano Ribeiro	9.0	RC+D	Operator
Andrew Thompson	2.0	Normandeau	Biologist
Ben Athaide	9.0	Sepe Tree	Laborer
Gino DeVecchis	9.0	Sepe Tree	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	Daily	4.0	5.0	
Global Pumps					
Boat Motor					
Magnum Generator	8/15/13		9.5	0.0	
CAT 322c Excavator	8/19/13		4.0	5.0	
J. Deere 870 Excavator			6.0	3.0	
yanmar ic45	8/26/13		4.0	5.0	
yanmar c50r mini-excavator	8/22/13		2.0	7.0	
J. Deere 250 Dump	8/27/13		6.0	3.0	
Cat D5 Dozer			0.0	0.0	9.0

3. Work performed today:
~~Field~~ Remedial Excavation in grids 07, 06, 05, 04, 15, 14, 13, 03, 12, and 02. Post-excavation samples were collected from grids 07, 06, 05, 04, 15, 14, 13, 03, 12, and 02. Conducted weekly meeting w/corp. Surface water Samples were collected and tree and brush clearing/grubbing activities commenced at Red Cove.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Surface Water Sampling / Post Excavation Endpoint Sediment Sampling, dust monitoring

6. Material received:
None

7. Submittals Reviewed: None

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meety, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

8/28/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 015 Date: 29 Aug 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: mostly cloudy

Precipitation: none Temp: 60 Min. 70 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Boraviec	10.25	SovCon	S. Supervisor
Laura Sinking	7.5	SovCon	Wetland Specialist
Rachel Leary	5.0	SovCon	PM
Brittany Smith	5.0	SovCon	Env Sci
Erin Foley	5.0	SovCon	Env Sci
John Curran	8.0	RC+D	S. Supervisor
Luciano Ribeiro	8.0	RC+D	Operater
Antonio C.C.	10.0	RC+D	Operater/Laborer
Alex Ribeiro	10.0	RC+D	Operator
Tony Rego	10.0	RC+D	Laborer
Ben Athaide	8.5	Sepe Tree	Laborer
Gino DeVecchis	8.5	Sepe Tree	Laborer
Andrew Thompson	2.25	Normandeau	Biologist

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	Daily	7.0	3.0	
Global Pumps	↓				
Boat/Motor	↓				
Magnum Generator	8/15/13		10.25	0.0	
CAT 322 Excavator	8/19/13		7.0	3.0	
J. Deere 270 Excavator	↓		9.0	1.0	
yanmar ic 45	8/26/13		7.0	3.0	
yanmar c50r	↓		7.0	3.0	
mini-excavator	8/22/13		0.0	10.0	
J. Deere 250 Dump	8/27/13		7.0	3.0	
Cat D5 Dozer	↓	↓	0.0	0.0	10.0

3. Work performed today:
Began mixing stockpiled sediments w/QUICKLIME drying agent
A cast-concrete structure was placed at the pump intake location
at Pond dam. Tree/brush clearing/grubbing was conducted at Red Cove,
Surface water samples were collected, Remedial excavation
in grid 01 was conducted and grid 01 was sampled.
Conducted public site walk in afternoon.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Surface water Sampling / Confirmatory
Post-Excavation endpoint samples were collected.

6. Material received:
QUICKLIME drying agent.

7. Submittals Reviewed: QUICKLIME MSDS

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

8/29/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 016 Date: 30AUG13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny

Precipitation: none Temp: 60 Min. 85 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.5	Sovereign	Sr. Supervisor
Laura Simkins	4.0	Sovereign	Wetland Specialist
Erin Foley	4.0	Sovereign	Env Sci
Sam Landry	4.0	Sovereign	Env Sci
Alex Ribeiro	8.5	RC+D	Operator/Laborer
Antino C.C.	8.5	RC+D	Laborer
Tony Rego	8.5	RC+D	Laborer
Jim Henkelberg	2.0	RC+D	S. Supervisor
John Curran	8.0	RC+D	Sr. Supervisor
Don Mason	3.0	Normandeau	Biologist
Gino DeVecchis	8.0	Sepe Tree	Laborer
Ben Athaide	8.0	Sepe Tree	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	Daily	2.5	6.0	
Gobbal Pumps					
Boat/Motor					
Magnum Generator	8/15/13		8.5	0.0	
CAT 322 Excavator	8/19/13		6.5	2.0	
J. Deere 270 Excavator	↓		6.5	2.0	
yanmar ic45	8/26/13		6.5	2.0	
yanmar c50r	↓	↓	6.5	2.0	
mini excavator	8/22/13 → 8/30/13		1.0	7.5	
J. Deere 250 Dump	8/27/13 → present		6.5	2.0	
Cat D5 Dozer	↓	↓	0.0	0.0	8.5

3. Work performed today:
Continued to mix QUICKLIME with stockpiled soils at shoreline of SA-71. Transported these soils to the upland staging area. Continued with remedial excavation ~~in grid 01.~~ Collected sediment from grid ~~01~~ 10, 11, 17 and 16. Collected surface water samples.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Collected surface water samples, sediment samples and recorded dust readings.

6. Material received:
None

7. Submittals Reviewed: None

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

8/30/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 017 Date: 03SEP13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny

Precipitation: none Temp: 65 Min. 80 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	9.0	SovCon	S. Superintendent
Laura Simkins	4.0	SovCon	Wetland Specialist
Erin Foley	5.0	SovCon	Env Sci
Brittany Smith	5.0	SovCon	Env Sci
Sam Landry	5.0	SovCon	Env Sci
Matt Bedford	2.0	SovCon	H+S Officer
Alex Ribeiro	8.5	RC+D	Operator/Laborer
Antonio C.C.	8.5	RC+D	Laborer
Aaron LaChance	8.5	RC+D	S. Superintendent
Tony Rego	8.5	RC+D	Laborer
Gino DeVecchis	8.5	SepeTree	Laborer
David Lavery	8.5	SepeTree	Laborer
John Curran	4.0	RC+D	S. Superintendent
Don Mason	3.0	Normandeau	Biologist

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	daily	2.5	6.0	
Global Pumps	↓				
Boat/Motor	↓				
Magnum Generator	8/15/13		9.0	0.0	
CAT 322 Excavator	8/19/13		6.0	2.5	
J. Deere 270 Excavator	↓		2.5	6.0	
yanmar ic45	8/26/13		6.0	2.5	
yanmar c50r	↓		6.0	2.5	
jdeere 250 Dump	8/27/13		6.0	2.5	
Cat D5 Dozer	↓ → 9/3/15	↓	0.0	0.0	8.5
Cat D3 Dozer	9/3/13 → present		2.5	6.0	

3. Work performed today:
Red Cove site prep (clearing/grubbing). Surface Water samples were collected.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Surface water sampling

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/3/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 018 Date: 04SEP13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: partly cloudy

Precipitation: none Temp: 60 Min. 80 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	SouCon	S. Supervisor
Laura Sianking	4.0	SouCon	Wetland Specialist
Rachel Leary	5.0	SouCon	PM
Aaron Lachance	8.0	RC+D	S. Supervisor
Antonio C.C.	8.0	RC+D	Laborer
Alex Ribeiro	8.0	RC+D	Operator/Laborer
Tony Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	daily	6.0	2.0	
Global Pumps	↓				
Boat/Motor	↓				
Magnum Generator	8/15/13		8.0	0.0	
CAT 322 Excavator	8/19/13		6.0	2.0	
J. Deere 270 Excavator	↓		2.0	6.0	
Yanmar ic 45	8/26/13		6.0	2.0	
Yanmar c50r	↓		6.0	2.0	
JDeere 250 Dump	8/27/13		6.0	2.0	
Cat D3 Dozer	9/3/13		6.0	2.0	

3. Work performed today:
Red Cove site prep/access road installation
Surface water sampling
Weekly meeting w/Corp. (Ellen)

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Surface water sampling

6. Material received:
None

7. Submittals Reviewed: None

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/4/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 019 Date: 05SEP 13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly cloudy, lt rain

Precipitation: ~~none~~ lt rain Temp: 50 Min. ~~75~~ Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.75	SouCon	Sr Supervisor
Erin Foley	5.0	SouCon	Env Sci
Aaron Lachance	8.5	RC+D	Sr. Supervisor
Alex Ribeiro	8.5	RC+D	Operator/Laborer
Tony Rego	8.5	RC+D	Laborer
David Lavery	5.0	Sepe Tree	Laborer
John Marchand	5.0	Sepe Tree	Laborer
Don Mason	2.5	Normandeau	Biologist
Arnold Johnston	5.0	WSP	Surveyor
Samuel Johnsten	5.0	WSP	Surveyor

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Well	8/9/13 → present	daily	2.5	6.0	
Global Pumps	↓				
Boat/Motor	↓				
Magnum Generator	8/15/13		8.75	0.0	
CAT 322 Excavator	8/19/13		6.0	2.5	
J. Deere 270 Excavator	↓		6.0	2.5	
Yanmar ic45	8/26/13		4.0	4.5	
Yanmar c50r	↓		4.0	4.5	
J Deere 250 dump	8/27/13		4.0	4.5	
Cat D3 Dozer	9/3/13 ↓	↓	6.0	2.5	

3. Work performed today:
Red Cove site prep, clearing/grubbing.
Surveyors on-site to set destroyed controls at Red Cove.
Surface water samples were collected. Constructed
a settling pond/basin in the west to dewater SA 71
to aid with the remedial excavation

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
Surface water Sampling

6. Material received:
Load of stone (rip-rap) and filter fabric
for settling pond/basin

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
Tested the dewatering system at SA71, it appears to work and discharge overflow water which is less turbid than the surrounding water.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/5/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 020 Date: 06SEP13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: Mostly Sunny

Precipitation: none Temp: 45 Min. 70 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.75	SovCon	S. Supervisor
Rachel Leary	5.5	SovCon	PM
Brittany Smith	7.5	SovCon	Env. Sci
Sam Davin	7.5	SovCon	Geologist
Erin Foley	7.5	SovCon	Env. Sci.
Aaron Lachance	8.5	RC+D	S. Supervisor
Tony Rego	8.5	RC+D	Laborer
Alex Ribeiro	8.5	RC+D	Operator/Laborer
Don Mason	2.5	Normandeau	Biologist
Jeff Brunelle	1.0	Nobis	EPA rep.

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	daily	2.5	6.0	
Global Pumps					
Banf/Motor					
Magnum Generator	8/15/13		8.75	0.0	
CAT 322 Excavator	8/14/13		2.5	6.0	
J. Deere 270 Excavator			6.5	2.0	
yanmar ic45	8/26/13		6.5	2.0	
yanmar c50r			6.5	2.0	
J. Deere 250 Dump	8/27/13		6.5	2.0	
Cat D3 Dozer	9/3/13		6.5	2.0	

3. Work performed today:
Dewatered SA71, Re-dig of SA-71 at grids 05, 04, 06, 15 and 14. (Noted PAH odors in excavated soils) - collected surface water samples

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
Sediment samples from SA71 re-dig
Surface water sampling

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSA's.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
~~No~~ Dewatering SA71 is marginally better while excavating. Soucon used visual indications of peat to direct excavation methods.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

Sovereign Consulting QC Representative

9/6/13
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 021 Date: 09SEP13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny

Precipitation: none Temp: 43 Min. 70 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	Sovereign	S. Supervisor
John Curran	8.0	RC+D	S. Supervisor
Alex Ribeiro	8.0	RC+D	Operator/Laborer
Tony Rego	8.0	RC+D	Laborer
Aaron Lachance	8.0	RC+D	S. Supervisor/Operator
Ken Strom	5.0	Land Tech	Surveyor
Todd LaPlante	5.0	Land Tech	Surveyor

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	daily	~~6.5~~ 7.5	6.5	
Global Pumps	↓				
Boat/Motor	↓				
Magnum Generator	8/15/13		8.0	0.0	
CAT 320 Excavator	8/19/13		1.5	6.5	
J. Deere 270 Excavator	↓		6.5	1.5	
yanmar vio45	8/26/13		6.5	1.5	
yanmar e50r	↓		6.5	1.5	
J. Deere 350 dump	8/27/13		6.5	1.5	
Cat D3 Dozer	9/3/13	↓	6.5	1.5	

3. Work performed today:
Constructed Red Cove sediment staging areas, solidified SA71 sediments with QUICKLIME drying agent.
Surveyors on-site to shoot elevations (lasers) at Red Cove.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
None

6. Material received:
One dump-trailer of QUICKLIME drying agent.

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

Sovereign Consulting QC Representative

8/8/13
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 022 Date: 10SEP13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: mostly cloudy, lt rain

Precipitation: 0.09 Temp: 60 Min. 80 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.5	SouCon	Sr Supervisor
Laura Sinkins	4.25	SouCon	Wetland Specialist
Sam Landry	2.5	SouCon	Env Sci
Erin Foley	2.5	SouCon	Env Sci
Rachel Leary	3.5	SouCon	PM
Don Mason	3.5	Normandeau	Biologist
Aaron Lachance	6.0	RC+D	S. Supervisor
Tony Rego	6.0	RC+D	Laborer
Michael Rego	6.0	RC+D	Operator/Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	daily	2.0	4.0	
Global Pumps	↓				
Boat/Motor	↓				
Magnum Generator	8/15/13		2.5	0.0	
CAT 322 Excavator	8/19/13		6.0	0.0	
J. Deer 270 Excavator	↓		5.0	1.0	
yanmar ic45	8/26/13		5.0	1.0	
yanmar c50r	↓		5.0	1.0	
J. Deere 250 Dump	8/27/13		2.0	4.0	
Cat D3 Dozer	9/3/13		2.0	4.0	

3. Work performed today:
Re-digs of SA71 grids 01, 11, 03, and 13 and sampling of the above listed grids. Excavated sediments were transfered to SA71 staging area. Surface water samples were collected and pond surveys was conducted.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
Surface water sampling and confirmatory post-excavation samples were taken.

6. Material received:
None

7. Submittals Reviewed: None

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
During the Redig of S171, we removed the "sludge" and dug to the peat layer where we sampled peat.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/10/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 023 Date: 11SEP13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: mostly sunny
Precipitation: None Temp: 74 Min. 97 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borawiec	9.0	Sovereign	S. Supervisor
Rachel Leary	3.5	Sov Con	PM
Erin Foley	8.0	Sov Con	Env Sci
Sam Davin	8.0	Sov Con	Geologist
Aaron LaChance	9.0	RC+D	S. Supervisor
John Cabral	9.0	RC+D	Laborer
Michael Rego	9.0	RC+D	Operater/Laborer
Robert Braga	9.0	RC+D	Laborer
Carlos Oliveira	9.0	RC+D	Laborer
Alex Ribeiro	9.0	RC+D	Operater/Laborer
Tony Rego	9.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	daily	0.0	9.0	
Global pumps					
Boat/motor					
Magnum Generator	8/15/13		9.0	0.0	
CAT 322 Excavator	8/19/13		3.0	5.0	
J. Deere 270 Excavator			6.0	3.0	
yanmar ic45	8/26/13		2.0	7.0	
yanmar c50r			2.0	7.0	
J. Deere 250 Dump	8/27/13				
Cat D3 Dozer	9/3/13		6.0	3.0	
			2.0	7.0	

3. Work performed today:

Re-dig at SA71 of grid 07. Started remedial excavation at Red Cove. Sampled grids 52 and 43 @ RC. Collected waste char samples from SA71 stockpiles for conducting. Conducted weekly meeting w/ CORP.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.

Conducted Initial Phase Inspections for SA71 MOB/site Prep, SA71 Removal Action, Red Cove MOB/site prep, and Red Cove Removal Action.

5. Test performed as required by plans and/or specifications:

Confirmatory post-excavation sediment sampling

6. Material received:

None

7. Submittals Reviewed: None

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/11/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 024 Date: 12SEP13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Partly clouds

Precipitation: none Temp: 68 Min. 90 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	9.0	SoCon	S. Supervisor
Erin Foley	8.0	SoCon	Env Sci
Sam Davin	8.0	SoCon	Geologist
Aaron Lachance	8.5	RC+D	S. Superusor
Tony Rego	8.0	RC+D	Laborer
Mike Rego	8.0	RC+D	Laborer
Alex Ribeiro	8.0	RC+D	Operater/Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Hull	8/9/13 → present	daily	0.0	8.0	
Global Pumps	↓	↓			
Boat/Motor	↓	↓			
Magnum Generater	8/15/13	↓	9.0	0.0	
CAT 322 Excavator	8/14/13	↓	4.0	4.0	
J. Deere 870 Excavator	↓	↓	7.0	1.0	
yanmar ic 45	8/26/13	↓	2.0	6.0	
yanmar c50r	↓	↓	2.0	6.0	
J. Deere 250 Dump	8/27/13	↓	4.0	4.0	
Cat D3 Dozer	9/3/13	↓	4.0	4.0	

3. Work performed today:
Continued with Red Cove remedial excavation and finger access road construction into Plow Shop Pond. Sampled Red Cove grids 51, 42, and 32.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Confirmatory post-excavation sediment sampling

6. Material received:
None

7. Submittals Reviewed: None

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting. Reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/10/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 025 Date: 13SEP13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: cloudy, ll rain

Precipitation:_____ Temp: _____ Min._____ Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Barowiec	8.75	SouCon	S. Supervisor
Sam Davin	8.0	SouCon	Geologist
Laura Simkins	4.0	Sou-Con	Wetland Specialist
Erin Foley	8.0	Sou-Con	Env Sci
Aaron Lachance	8.5	RC+D	S. Supervisor
Tony Rego	8.0	RC+D	Laborer
Mike Rego	8.0	RC+D	Laborer/Operator
Alex Ribeiro	8.0	RC+D	Laborer/Operator
Don Mason	3.0	Normandeau	Biologist
Jeff Bernell	2.0	Nobis	EPA rep.

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/14/13 → present	daily	0.0	8.0	
Global Pumps	↓				
Boat/Motor	↓				
Magnum Generator	8/15/13		8.0	0.0	
CAT 320 Excavator	8/19/13		4.0	4.0	
J. Deere 270 Excavator	↓		6.0	2.0	
yanmar ic45	8/26/13		2.0	6.0	
yanmar c50r	↓		2.0	6.0	
J. Deere 250 Dump	8/27/13		6.0	2.0	
Cat D3 Dozer	9/3/13		2.0	6.0	

3. Work performed today:
Repaired access road to SHLP and site erosion controls that were damaged during overnight storms. Continued with excavation at Red Cove, sampled Red Cove grid 33. Surface water samples were collected and pond survey was completed.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Post-excavation confirmatory sediment sampling and surface water sampling.

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/13/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 026 Date: 16 SEP 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mostly cloudy

Precipitation:_____ Temp: _____ Min._____ Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Bonavita	9.0	SovCon	S. Supervisor
Erin Foley	5.0	SovCon	EnvSci
Sam Davin	5.0	SovCon	Geologist
Aaron LaChance	8.5	RC+D	S. Supervisor
Alex Ribeiro	8.5	RC+D	Operator/Laborer
Mike Rego	8.5	RC+D	Operator/Laborer
Tony Rego	8.5	RC+D	Laborer
Luciano Ribeiro	8.5	RC+D	Operator

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Lull	8/9/13 → present	daily	1.0	7.5	
Global Pumps	↓				
Back/Motor	↓				
Magnum Generator	8/15/13		9.0	0.0	
CAT 322 Excavator	8/19/13		6.0	2.5	
J. Deere 270 Excavator	↓		6.0	2.5	
Yanmar 125	8/26/13 → 9/16/13		2.5	6.0	
Yanmar c50r	↓ 9/16/13		2.5	6.0	
J. Deere 250 dump	8/27/13 → present		2.5	6.0	
Cat D3 Dozer	9/3/13 ↓ ↓		2.5	6.0	

3. Work performed today:

The southern grids of SA71 were dug out to the forseen depth. However, based on overwhelming visual appearence of coal-related impacts, were not sampled. Instead test pits were performed to see how deep visual impacts were and lateral shoreline trenches were also performed to see if the debris Continued South. See #5 for further

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:

Test Pits → ① Oily odor, rr ties, pipes, oily soils but not coal/brick, but @ 5-6 ft
② coal/brick to 5-6 ft, deeper than that is the peat layer
③ Same as above (SAA)
④ SAA

Shore line → ① oily odor soils but not brick/coal
② Observed brick/coal as far back as 15 ft
③ Observed brick/coal as far back as 20 ft

6. Material received:

None

7. Submittals Reviewed: None

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meety, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/16/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 027 Date: 17SEP13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: mostly sunny
Precipitation: none Temp: _____ Min._____ Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.5	SovCon	Sr Supervisor
Erin Foley	7.5	SovCon	Env Sci
Laura Sinkus	4.0	SovCon	Wetland Specialist
Sam Davin	7.5	SovCon	Geologist
Don Mason	3.0	Normandeau	Biologist
Robert Holwill	1.0	SovCon	Corp. H+S Officer
Matt Bedford	1.0	SovCon	H+S Officer
Mike Regio	8.5	RC+D	Operator/Laborer
Richard Ahern	8.5	RC+D	Operator/Laborer
Aaron Lachance	8.5	RC+D	Sr Supervisor

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
~~Boat~~	~~8/9/13 → project~~	~~Daily~~			
Global Pumps					
Boat/motor	↓				
Magnum Generator	8/15/13		8.5	0.0	
CAT 330 Excavator	8/19/13		6.5	2.0	
J. Deere 270 Excavator	↓		6.5	2.0	
J. Deere 250 Dump	8/27/13		4.5	4.0	
Cat D3 Dozer	9/3/13	↓	2.0	6.5	

3. Work performed today:
Continued w/ shoreline test pits to determine the lateral extent in the southern shoreline of SA71. See Field notes for results. Finger road into Red Cove was completed. Red Cove grods 50 and 55 were sampled. Surface water samples and pond survey completed.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Confirmatory post excavation endpoint samples and surface water sampling.

6. Material received:
None

7. Submittals Reviewed: None

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting reviewed JSAs. SouCon corp. HES officer and Foxboro HES officer on-site

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/17/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 028 Date: 18SEP13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: mostly sunny

Precipitation: none Temp: 40 Min. 76 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Boraviec	8.5	SovCon	Sr. Supervisor
Erin Foley	5.0	SovCon	Env Sci
Sam Davin	5.0	SovCon	Geologist
Marc Cicleese	8.5	SovCon	Program Manager
Aaron Lachance	8.5	RC+D	Sr. Supervisor/Laborer
Tony Rego	8.5	RC+D	Laborer
Mike Rego	8.5	RC+D	Operator/Laborer
Richard Ahern	8.5	RC+D	Operater

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	8.5	0.0	
CAT 322 Excavator	8/19/13		7.5	1.0	
J. Deere 270 Excavator	↓		7.5	1.0	
J. Deere 250 Dump	8/27/13		7.5	1.0	
Cat D3 Dozer	9/3/13 ↓	↓	2.5	6.0	

3. Work performed today:
Solidification of Red Cove sediments and Red Cove excavation/sampling of Grid 41. USACE on-site to conduct weekly meeting.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Confirmatory Post-excavation sediment sampling of Red Cove Grid 41.

6. Material received:
One (1) load of quickline

7. Submittals Reviewed: None

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/18/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 029 Date: 19SEP13

Contract No. W912WJ-10-D-003 Task Order No. 005

Project Title & Location: Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA

Weather: mostly sunny
Precipitation: none Temp: 50 Min. 73 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	9.0	SovCon	Sr Supervisor
Laura Simkins	4.0	SovCon	Wetland Specialist
Erin Foley	4.75	SovCon	Env Sci
Sam Davin	4.75	SovCon	Geologist
Aaron Lachance	8.5	RC+D	S. Supervisor/Operator
Tony Rego	8.5	RC+D	Laborer
Mike Rego	8.5	RC+D	Laborer
Richard Ahern	8.5	RC+D	Operator
Don Mason	2.75	Normandeau	Biologist

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	daily	9.0	0.0	
CAT 322 Excavator	8/19/13		7.5	1.0	
J. Deere 270 Excavator	↓		7.5	1.0	
J. Deere 250 Dump	8/27/13		6.5	2.0	
CAT D3 Dozer	9/3/13		2.5	6.0	
J. Deere 250 Dump	9/10/13		2.5	6.0	
PC 200 Excavator	↓	↓	0.0	0.0	5.0

3. Work performed today:
Continued with solidification of Red Cove sediments.
Dug and sampled RC Grid 40. Re-dug SA71 Grid 11 (3rd sampling).
Amphib. excav. cabin arrived on-site, crane on-site to prep.
Surface Water samples collected/pe

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Surface water sampling / Post-excavation

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting. Reviewed JSA

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, ~~except as noted~~ above.

Sovereign Consulting QC Representative

9/19/13
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 080 Date: 20SEP13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mostly sunny

Precipitation: none Temp: 50 Min. 80 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	9.5	SouCon	S. Supervisor
Rachel Leary	5.0	SouCon	PM
Erin Foley	4.5	SouCon	Env Sci
Sam Davin	4.5	SouCon	Geologist
Aaron Lachance	8.5	RC+D	S. Superuser/Operator
Tony Rego	6.0	RC+D	Laborer
Mike Rego	6.0	RC+D	Laborer/Operator
Richard Ahern	8.5	RC+D	Operator
Max Billiot	8.0	B+S	Operator
Jeff Brunell	4.0	Nobis	EPA Sik Rep

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13→present	daily	9.5	0.0	0.0
CAT 322 Excavator	8/19/13		6.5	2.0	0.0
J. Deere 270 Excavator	↓		6.5	2.0	0.0
J. Deere 250 Dump	8/27/13		6.5	2.0	0.0
CAT D3 Dozer	9/3/13		2.0	6.5	0.0
J. Deere 250 Dump	9/19/13		6.5	2.0	0.0
PC 200 Excavator	↓	↓	0.0	0.0	6.5

3. Work performed today:
Continued with Red Cove excavation and solidification of sediments. Sampled Red Cove grids 53 and 49. Astro Crane on-site to pick amphib. excavator pontoons and to aid in assembly of the machine.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Confirmatory Post Excavation sediment sampling at Red Cove grids 53 and 49.

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
Assembled amphib. excavator on-site today.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/20/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 031 Date: 21 SEP 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mostly Sunny

Precipitation: none Temp: 48 Min. 77 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Sam Landry	8.0	SovCon	Env Sci / Si Supervisor
Aaron Lachance	8.0	RC+D	Si Supervisor
Tony Rego	8.0	RC+D	Laborer
Mike Rego	8.0	RC+D	Laborer / operater
Richard Ahern	8.0	RC+D	Operater
Max Billiot	8.0	B+S	Operater

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	daily			
CAT 322 Excavator	8/19/13				
J. Deere 270 Excavator	↓				
J. Deere 250 Dump	8/27/13				
CAT D3 Dozer	9/3/13				
J. Deere 250 Dump	9/19/13				
PC 300 Excavator	↓	↓			

3. Work performed today:
Trial of amphib excavator in Red Cove. Excavated sediments in Grids 35, 34, 44 and 26.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: None

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meety, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 032 Date: 23SEP13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Sunny

Precipitation: none Temp: 42 Min. 62 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Rachel Leary	6.0	SovCon	PM
Erin Foley	7.0	SovCon	Env Sci
Sam Davin	8.0	SovCon	Geologist
Tony Rego	10.0	RC+D	Laborer
Mike Rego	10.0	RC+D	Operater/Laborer
Richard Ahern	10.0	RC+D	Operater
Aaron LaChance	10.0	RC+D	Operater/Si. Supervisor
Max Billiot	10.0	B+S	Operater

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13→present	daily			
CAT 320 Excavator	8/19/13				
J. Deere 270 Excavator	↓				
J. Deere 250 Dump	8/27/13				
CAT D3 Dozer	9/3/13				
J. Deer 250 Dump	9/19/13				
PC 200 Excavator	↓				

3. Work performed today:
Continued to excavate Red Cove sediments using amphib. excavator

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken)
Conducted morning tailgate safety meetings, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 033 Date: 24 SEP 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: partly cloudy

Precipitation: none Temp: 43 Min. 69 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	~~10.5~~ 8	SovCon	Si Supervisor
Erin Foley	8.5	SovCon	Env Sci
Brittany Smith	6.5	SovCon	Env Sci
Don Mason	3.5	Normandeau	Biologist
Aaron Lachance	~~10.5~~ 10.5	RC+D	S. Supervisor
Tony Rego	~~10.5~~ 10.5	RC+D	Laborer
Mike Rego	10.5	RC+D	Laborer/Operator
Richard Ahern	10.5	RC+D	Operator
Max Billiat	10.5	B+S	Operator

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	daily	10.5	0.0	0.0
CAT 322 Excavator	8/19/13		8.5	2.0	
J.Deere 270 Excavator	↓		8.5	2.0	
J.Deere 250 Dump	8/27/13		8.5	2.0	
CAT D3 Dozer	9/3/13		2.0	8.5	
J. Deere 250 Dump	9/19/13		8.5	2.0	
PC200 Excavator	↓ ↓	↓	8.5	2.0	

3. Work performed today:
Continued to excavate Red Cove sediments w/ Amphib. excav. and load out solidified Red Cove sediments. Sampled Red Cove Grids 56 → 60. collected surface water samples.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Post-excavation sediment sampling of Red Cove grids 56 → 60, and surface water sampling

6. Material received:
4 Supersacks of Sodium Polyacrylate "Polymer"

7. Submittals Reviewed: MSDS for Polymer

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meety, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/24/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 034 Date: 25SEP13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mostly Sunny

Precipitation: None Temp: 45 Min. 72 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	9.0	SouCon	S. Supervisor
Rachel Leary	3.0	SouCon	PM
Erin Foley	7.0	Sou Con	Env Sci
Brittany Smith	7.0	Sou Con	Env Sci
Aaron Lachance	9.0	RC+D	Si Supervisor
Mike Rego	9.0	RC+D	Laborer/operater
Tony Rego	9.0	RC+D	Laborer
Richard Ahern	9.0	RC+D	Operater
Max Billiot	9.0	B+S	operater

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	daily	9.0	0.0	
CAT 320 Excavator	8/19/13		8.0	1.0	
J. Deere 270 Excavator	↓		8.0	1.0	
J. Deere 250 Dump	8/27/13		8.0	1.0	
CAT D3 Dozer	9/3/13		1.0	8.0	
J. Deere 250 Dump	9/19/13		8.0	1.0	
PC200 Excavator	↓	↓	4.0	5.0	

3. Work performed today:
Continued with excavation of Red Cove using Amphib. excav. Red Cove grids 34, 35, 44 were sampled from a boat using GPS. Red Cove grid 25 was sampled using Long-stick excavator.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Post-excavation sediment sampling from Red Cove

6. Material received:
None

7. Submittals Reviewed: None

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/25/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 035 Date: 26 SEP 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mostly Sunny

Precipitation: none Temp: 50 Min. 70 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	9.5	SovCon	S. Supervisor
Aaron Lachance	9.0	RC+D	S. Supervisor
Richard Ahern	9.0	RC+D	Operater
Mike Rego	9.0	RC+D	Laborer/operater
Tony Rego	9.0	RC+D	Laborer
Max Billiot	9.0	B+S	Operator

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	9.5	0.0	0.0
CAT 322 Excavator	8/19/13		6.5	2.5	0.0
J. Deere 270 Excavator	↓		6.5	2.5	0.0
J. Deere 250 Dump	8/27/13		6.5	2.5	0.0
CAT D3 Dozer	9/3/13		2.5	6.5	0.0
J. Deere 250 Dump	9/14/13		6.5	2.5	0.0
PC200 Excavator	↓	↓	0.0	9.0	0.0

3. Work performed today:
RC+D crew on-site to fabricate barge for Red Cove removal. Continued to solidify excavated Red Cove sediments

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
Dust track air monitoring

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/26/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 036 Date: 27SEP13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: mosty cloudy

Precipitation none Temp: 50 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	9.0	SovCon	S. Supervisor
Laura Sinkins	3.5	SovCon	Wetland Specialist
Rachel Leary	5.0	SovCon	PM
Tony Rego	8.5	RC+D	Laborer
Mike Rego	8.5	RC+D	Laborer
Richard Ahern	9.0	RC+D	Operator
Aaron Lachance	9.0	RC+D	S-Supervisor
Max Billiot	9.0	B+S	Operator

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	9.0	0.0	0.0
CAT 308 Excavator	8/19/13		8.0	1.0	0.0
J. Deere 270 Excavator	↓		8.0	1.0	0.0
J. Deere 250 Dump	8/27/13		8.0	1.0	0.0
CAT D3 Dozer	9/3/13		2.0	7.0	0.0
J. Deere 250 Dump	9/19/13		8.0	1.0	0.0
PC 200 Excavator	↓	↓	8.0	1.0	0.0

3. Work performed today:
Continued with work on Wood-barge, continued with solidification of Red Cove sediments. Conducted an assessment of the areas surrounding concrete vault. Collected soil samples from areas north and just beneath the vault.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.
None

5. Test performed as required by plans and/or specifications:
Dust monitoring

6. Material received:
Dump-trucks of Quickline.

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety Meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/27/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 037 Date: 28 SEP 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mostly Sunny

Precipitation: None Temp: 45 Min. 75 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	Sovlon	S. Supervisor
Mike Rego	8.0	RC+D	Laborer
Tony Rego	8.0	RC+D	Laborer
Aaron Lachance	8.0	RC+D	S. Supervisor
Richard Ahern	8.0	RC+D	Operater
Max Billiot	8.0	D+S	Operater

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	6.0	2.0	0.0
CAT 322 Excavator	8/14/13		6.0	2.0	0.0
J. Deere 270 Excavator	↓		6.0	2.0	0.0
J. Deere 250 Dump	8/27/13		6.0	2.0	0.0
CAT D3 Dozer	9/3/13		2.0	6.0	0.0
J. Deer 250 Dump	9/19/13		6.0	2.0	0.0
PC200 Excavator	↓	↓	6.0	2.0	0.0

3. Work performed today:
Completed barge and tested it at Red Cove. Abandoned SUV was discovered in Red Cove decanting bin in AM. → State Police were called to remove vechicle. Continued to excavate Red Cove w/Amphib excavator/barge/long stick combo and solidification of excavated sediments.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSAs.

Abandoned SUV was discovered on-site in AM (trespass). State police were contacted and proceeded to recover vehicle and remove from site on flat-bed tow-truck.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

9/28/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 038 Date: 30SEP13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Foggy

Precipitation: None Temp: 45 Min. _____ Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Rachel Leary	10.0	SovCon	PM
Mike Rego	10.0	RC+D	Laborer
Tony Rego	10.0	RC+D	Laborer
Max Billiot	10.0	~~RC+D~~ B+S	Operator
Aaron Lachance	10.0	RC+D	S.S upervisor
Richard Ahern	10.0	RC+D	Operator

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	10.0	0.0	0.0
CAT 322 Excavator	8/19/13		8.0	2.0	0.0
JDeere 270 Excavator	↓		8.0	2.0	0.0
JDeere 250 Dump	8/27/13		8.0	2.0	0.0
CAT D3 Dozer	9/3/13 → 9/30/13		1.0	9.0	0.0
JDeere 250 Dump	9/19/13		8.0	2.0	0.0
PC 200 Excavator	↓	↓	8.0	2.0	0.0

3. Work performed today:
Continued to excavate Red cove using Amb/rb excavators and long stick excavator. D3 Dozer was picked up. solidification of RC sediments continued

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.
None

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: NA

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and reviewed JSAs

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

for: RBL 9/30/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 039 Date: 01 OCT 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mostly sunny

Precipitation: none Temp: 40 Min. _____ Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	10.0	SovCon	C. Supervisor
Laura Sinking	3.5	SovCon	Wetlands Specialist
Mike Rego	10.0	RCHD	Laborer
Tony Rego	10.0	RCHD	Laborer
Aaron Lachance	10.0	RCHD	S. Supervisor
Max Billiot	10.0	BTS	Operater
Dan Mason	3.0	Normandeau	Biologist

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generater	8/15/13 → present	Daily	10.0	0.0	0.0
CAT 322 Excavator	8/19/13		8.0	2.0	0.0
JDeere 270 Excavator	↓		8.0	2.0	0.0
JDeere 250 Dump	8/27/13		8.0	2.0	0.0
JDeere 250 Dump	9/9/13		8.0	2.0	0.0
PC 200 Excavator	↓	↓	8.0	2.0	0.0

3. Work performed today:
Continued with excavation and solidification of RC sediments. Collected 4 waste characterization samples from Red Cove → HPC-WC-100113-01 → -04.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively.
None

5. Test performed as required by plans and/or specifications:
Air monitoring

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
N/A

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted Morning tailgate safety meeting and reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/1/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 040 Date: 02 OCT 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Sunny
Precipitation: None Temp: 50 Min. 30 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	10.0	SovCon	S Supervisor
Rachel Leary	4.5	SovCon	PM
Laura Simkins	8.5	SovCon	~~Env Sci~~ Wetland Specialist
Erin Foley	8.5	SovCon	Env Sci
Mike Rego	10.0	RC+D	Laborer
Tony Rego	10.0	RC+D	Laborer
Max Billoir	10.0	B+S	Operator
Aaron Lachance	10.0	RC+D	Operator/S. Superviser
Jim Heneberry	2.0	RC+D	PM

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/8/13 > present	Daily	10.0	0.0	0.0
CAT 320 Excavator	8/14/13		8.0	0.0	0.0
JDeere 270 Excavator	↓		8.0	0.0	0.0
JDeere 250 Dump	8/27/13		8.0	2.0	0.0
JDeere 250 Dump	9/19/13		8.0	2.0	0.0
PC 200 Excavator	↓	↓	8.0	2.0	0.0

3. Work performed today:
Continued to excavate/solidify RC sediments. Sampled RC cells 36, 37, 38, 39, 45, 46, 47, 22, 23, 24, 29, 30, and 31. Amphibious excavator was moved upland awaiting demob.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Dust Monitoring, post-excavation confirmatory samples

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/2/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 041 Date: 03OCT 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Sunny

Precipitation: None Temp: ~~88~~ 55 Min. 78 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	10.0	SouCon	S. Supervisor
Laura Simking	2.0	SouCon	Wetland Specialist
Brittany Smith	8.0	SouCon	ENV Sci
Erin Foley	8.0	SouCon	ENV Sci
Aaron Lachance	8.0	RC+D	S. Supervisor
Tony Rego	8.0	RC+D	Laborer
Mike Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 > present	Daily	10.0	0.0	0.0
CAT 322 Excavator	8/14/13		7.0	1.0	0.0
J Deere 270 Excavator	↓		7.0	1.0	0.0
J Deere 250 Dump	8/27/13		7.0	1.0	0.0
J Deere 250 Dump	9/19/13		7.0	1.0	0.0
PC 200 Excavator	↓	↓	1.0	7.0	0.0

3. Work performed today:
Continued with solidification of Red Cove Sediments. Collected samples from RC cells 19, 20, 21, 26, 27, 28, 13, 18, 10, 14, 15, and 16.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Dust Monitor

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted Morning tailgate safety meets, reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/3/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 042 Date: 04OCT13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: lt rain / mostly sunny

Precipitation: _____ Temp: 50 Min. 64 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	SevCon	S. Supervisor
Brittany Smith	6.5	SevCon	Env Sci
Erin foley	6.5	SevCon	Env Sci
Mike Rego	7.0	RC+D	Laborer
Tony Rego	7.0	RC+D	Laborer
Rachel Leary	6.5	SevCon	PM

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	6/15/13 → present	Daily	8.0	0.0	0.0
CAT 322 Excavator	8/19/13		6.0	1.0	0.0
JDeere 70 Excavator	↓		0.0	7.0	6.0
JDeere 250 Dump	8/27/13		6.0	1.0	0.0
JDeere 250 Dump	9/19/13		0.0	7.0	6.0
PC200 Excavator	↓	↓	0.0	7.0	0.0

3. Work performed today:
Continued to solidify RC sediments. Sampled RC cells 06, 07, 08, 11, 12, and 17.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Dust Monitoring

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted Moray tailgate safety meety and reviewed JSAs

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/4/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 043 Date: 07OCT13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Foggy / lt rain

Precipitation: yes Temp: 55 Min. 75 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	9.25	SovCon	S. Supervisor
Erin Foley	7.0	SovCon	Env Sci
Brittany Smith	7.0	SovCon	Env Sci
Aaron Lachance	8.0	RC+D	S. Supervisor
Mike Rego	8.0	RC+D	Laborer
Tony Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	9.0	0.0	0.0
CAT 322 Excavator	8/19/13		7.0	1.0	0.0
JDeere 270 Excavator	↓		7.0	1.0	0.0
JDeere 250 Dump	8/27/13		7.0	1.0	0.0
JDeere 250 Dump	9/19/13		0.0	8.0	0.0
PC200 Excavator	↓	↓	0.0	8.0	0.0

3. Work performed today:
Work resumed w/ solidification of RC sediments. Sampling collected post-ex samples @ Red Cove cells 01, 02, 03, 04, 05 and 09. RC cells 40 were re-dug and resampled. Collected additional RC waste char. samples (4).

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
Confirmatory post-ex sampling

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate meeting and reviewed JSAs

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/7/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 044 Date: 09OCT 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mostly Sunny

Precipitation: none Temp: 40 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.75	Sovlon	S. Supervisor
Laura Simkins	4.0	Sovlon	Wetland Specialist
Don Mason	3.0	Normandeau	Biologist
Mike Rego	8.5	RC+D	Laborer
Tony Rego	8.5	RC+D	Laborer
Aaron Lachance	8.5	RC+D	S. Supervisor

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 > present	daily	8.75	0.0	0.0
CAT 322 Excavator	8/19/13		7.0	1.5	0.0
JDeere 270 Excavator	↓		7.0	0.0	0.0
JDeere 850 Dump	8/27/13		7.0	0.0	0.0
JDeere 250 Dump	9/19/13		0.0	7.0	0.0
PC200 Excavator	↓	↓	0.0	7.0	0.0

3. Work performed today:
Continued with solidification of RC sediments. Re-dug RC cell 41 and dug RC cell 48.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
Dst Monitory, collection of confirmatory post-ex samples

6. Material received: None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/8/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 045 Date: 09 OCT 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: clear

Precipitation: None Temp: 40 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.5	SovCon	S-Supervisor
Brittany Smith	6.0	SovCon	Env Sci
Erin Foley	6.0	SovCon	Env Sci
Rachel Leary	4.5	SovCon	PM
Mike Rego	8.5	RC+D	Laborer
Tony Rego	8.5	RC+D	Laborer
Aaron Lachance	8.5	RC+D	Sr. Supervisor

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	8.5	0.0	0.0
CAT322 Excavator	8/19/13		7.0	1.0	0.0
JDeere 270 Excavator	↓		7.0	1.0	0.0
JDeere 250 Dump	8/27/13		7.0	1.0	0.0
JDeere 250 Dump	9/16/13		0.0	8.0	0.0
PC200 Excavator	↓	↓	0.0	8.0	0.0

3. Work performed today:
Continued with Solidification of Red Core Sediments, Sampled previously excavated SA71 cells 19, 20, 21, 22, 23, and 24 at the original 3ft cut depth.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
Dust Monitory, Confirmatory Post excavation Sampling

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
conducted morning tailgate safety meeting and review of JSA.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/9/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 046 Date: 10 OCT 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: mostly cloudy

Precipitation: None Temp: 40 Min. 60 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	7.5	Sovlon	S. Supervisor
Aaron Lachance	8.0	RCHD	S. Supervisor
Mike Rego	8.0	RCHD	Laborer
Tony Rego	8.0	RCHD	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13→present	Daily	8.0	0.0	0.0
CAT 322 Excavator	8/16/13		7.0	1.0	0.0
JDeere 270 Excavator	↓		7.0	1.0	0.0
JDeere 250 Dump	8/27/13		7.0	1.0	0.0
JDeere 250 Dump	9/19/13		0.0	8.0	0.0
PC 300 Excavator	↓	↓	0.0	8.0	0.0

3. Work performed today:
Work continued with the solidification of RC sediments. Mike P. from USACE was present in AM to discuss tree placement along shoreline of RC.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and reviewed JSA's.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/10/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 047 Date: 9/11/13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: clear

Precipitation: None Temp: 45 Min. 75 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borawiec	8.0	SovCon	S. Supervisor
Laura Simkins	4.5	SovCon	Wetland Specialist
Don Mason	3.0	Normandeau	Biologist
Aaron Lachance	8.0	RCHD	S. Supervisor
Jim Heneburg	3.5	RCHD	PM
Mike Rego	8.0	RCHD	Laborer
Tony Rego	8.0	RCHD	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	8.0	0.0	0.0
CAT 322 Excavator	8/19/13		6.0	2.0	0.0
JDeere 270 Excavator	↓		6.0	2.0	0.0
JDeere 250 Dump	8/27/13		6.0	2.0	0.0
JDeere 250 Dump	9/4/13		0.0	8.0	0.0
PC200 Excavator	↓		0.0	8.0	0.0

3. Work performed today:
Ready SA71 Grid 20 and additional 1-3 feet.
Collected post-ex sample from SA71 grid 20.
Continued w/ solidification of RC sediments.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
Collection of confirmatory post-excavation samples

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and reviewed JSA's.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/11/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 048 Date: 15OCT13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mosty clouds

Precipitation: none Temp: 50 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.5	Soulon	S. Supervisor
Aaron Lachance	8.0	RCHD	S. Supervisor
Mike Rego	8.0	RCHD	Laborer
Tony Rego	8.0	RCHD	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13→present	Daily	8.0	0.0	0.0
CAT 322 Excavator	8/19/13		0.0	8.0	0.0
JDeere 270 Excavator	↓		0.0	8.0	0.0
JDeere 250 Dump	9/27/13		0.0	8.0	0.0
JDeere 250 Dump	9/19/13		0.0	8.0	0.0
PC200 Excavator	↓	↓	0.0	8.0	0.0

3. Work performed today:
Amphibious excavator was broken down (demob) and loaded onto flat bed trailers for shipment offsite. It was later determined that the cabin was loaded onto wrong trailer and was sent back on-site to be loaded onto "low boy" trailer

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meety and reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/15/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 049 Date: 16OCT13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: foggy / clouds

Precipitation: none Temp: 40 Min. 60 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.25	SouCon	S. Supervisor
Rachel Leary	5.0	SouCon	PM
AaronLachance	8.0	RCHD	S. Supervisor
Mike Reso	8.0	RCHD	Laborer
Tony Reso	8.0	RCHD	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → prgnt	Daily	8.0	0.0	0.0
CAT 322 Excavator	8/19/13		8.0	8.0	0.0
JDeere 70 Excavator	↓		6.0	2.0	0.0
JDeere 250 Dump	8/27/13		6.0	2.0	0.0
JDeere 250 Dump	9/16/13		0.0	8.0	0.0
PC200 Excavator	↓ → 10/16/13		0.0	8.0	0.0

3. Work performed today:
Completed demob of amphib excavator, continued with site restoration activities.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/16/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 050 Date: 10/17/13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Sunny

Precipitation none Temp: 55 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borquez	8.0	SevCon	S. Supervisor
Laura Simkins	4.0	SevCon	Wetland specialist
Aaron Lachance	8.0	RCTD	S. Supervisor
Mike Rego	8.0	RCTD	Laborer
Tony Rego	8.0	RCTD	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 present	Daily	8.0	0.0	0.0
CAT 320 Excavator	8/19/13		6.0	0.0	0.0
John Deere 27E Excavator	↓		6.0	2.0	0.0
JDeere 250 Dump	8/27/13		6.0	2.0	0.0
JDeere 250 Dump	9/19/13 ↓	↓	0.0	8.0	0.0

3. Work performed today:
Improved pond inlet dam with several smaller sandbags. Began drawdown pumps (12" dia) to dewater pond to facilitate vault work.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meety and reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/17/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 051 Date: 18 OCT 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: cloudy

Precipitation: none Temp: 45 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	1.5	SOVCON	S. Supervisor
Rachel Leary	7.5	Sovcon	PM
Mike Rego	8.0	RC+D	Laborer
Tony Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	8.0	0.0	0.0
CAT 320 Excavator	8/19/13		6.0	2.0	0.0
JDeere 270 Excavator	↓		6.0	2.0	0.0
JDeere 250 Dump	8/27/13		6.0	2.0	0.0
JDeere 250 Dump	9/19/13 ↓	↓	0.0	8.0	0.0

3. Work performed today: Continued with Site restoration and equipment demobilization activities.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications: None

6. Material received: None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/18/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 052 Date: 2/OCT 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: clear

Precipitation: none Temp: 35 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	9.25	Sovereign	S. Supervisor
Aaron Lachance	9.25	RC+D	S. Supervisor
Tony Rego	9.0	RC+D	Laborer
Mike Rego	9.0	RC+D	Laborer
Miguel Franco	8.5	Trident	Subcontractor
Gerango Francisco	8.5	Trident	Subcontractor
Jose Davila	8.5	Trident	Subcontractor

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	9.25	0.0	0.0
CAT 322 Excavator	8/19/13		6.0	3.0	0.0
JDeere 270 Excavator	↓		6.0	3.0	0.0
JDeere 250 Dump	8/27/13		6.0	3.0	0.0
JDeere 250 Dump	9/19/13 ↓	↓	8.0	9.0	0.0

3. Work performed today:
the Concrete vault @ SA71 was vacted at by Trident Environmental (confined space entry). All pipe penetrations were plugged and the dewatering pumps were turned off. Site restoration continued at Red Cove.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
Trident Env performed atmos testing prior to entry into vault

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meety and reviewed JSA.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/21/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 053 Date: 22OCT 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: party cloudy

Precipitation: none Temp: 40 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	4.75	SovCon	S. Supervisor
Brittay Smith	5.0	SovCon	Env Sci
Laura Sinkiks	6.0	SovCon	Wetland Specialist
Aaron Lachance	9.0	RC+D	S. Supervisor
Tony Rego	9.0	RC+D	Laborer
Mike Rego	9.0	RC+D	Laborer
Jim Henebury	1.0	RC+D	PM

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	9.0	0.0	0.0
CAT 330 Excavator	8/19/13		6.0	3.0	0.0
JDeere 270 Excavator	↓		6.0	3.0	0.0
JDeere 250 Dump	8/27/13		6.0	3.0	0.0
JDeere 250 Dump	9/19/13		0.0	9.0	0.0
Lull	10/22/13	↓	0.0	9.0	0.0
CAT 420E			0.0	9.0	0.0
CAT D3	↓	↓	0.0	9.0	0.0

3. Work performed today:
Demobed the dewatering pump systm (ie intake pipes), backfilled vault @ STA 1+ of stone and continued with site restoration activities.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
Lull

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted monthly tailgate safety meety and reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/22/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 054 Date: 23 OCT 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: clear

Precipitation: none Temp: 33 Min. 50 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.5	SovCon	S. Supervisor
Rachel Leary	6.5	SovCon	PM
Aaron Lachance	8.0	RC+D	S. Supervisor
Tony Reso	8.0	RC+D	Laborer
Mike Reso	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	8.0	0.0	0.0
CAT 322 Excavator	8/19/13		0.0	8.0	0.0
JDeere 870 Excavator	↓		6.0	2.0	0.0
JDeere 250 Dump	8/27/13		6.0	2.0	0.0
JDeere 250 Dump	9/9/13		0.0	8.0	0.0
Lull	10/22/13		6.0	2.0	0.0
CAT 420E			6.0	2.0	0.0
CAT D3	↓	↓	0.0	8.0	0.0

3. Work performed today:
Continued with site restoration at RC and RRRH. Removed "sandbar" soils at drainage swale inlet of PSP and continued to demob dewatering pump assemblies.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meety and reviewed JSA.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/23/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 055 Date: 24OCT 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mostly Sunny

Precipitation: None Temp: 35 Min. 55 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	5.0	SoCon	S. Supervisor
Aaron Lachance	6.0	RC+D	S. Supervisor
Tony Reso	8.0	RC+D	Laborer
Mike Reso	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	0.0	8.0	0.0
CAT 322 Excavator	8/19/13		0.0	8.0	0.0
JDeere 270 Excavator	↓		6.0	2.0	0.0
JDeere 250 Dump	8/27/13		6.0	2.0	0.0
JDeere 250 Dump	9/19/13		0.0	8.0	0.0
Lull	10/20/13		6.0	2.0	0.0
CAT 420E			6.0	2.0	0.0
CAT D3	↓	↓	0.0	8.0	0.0

3. Work performed today:
Continued w/site restoration @ RRRH/RC and Moore Dam. Cleared out jobsite trailer.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. NA

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations, corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and Reviewed JSA's.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/24/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 056 Date: 25OCT13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: clear

Precipitation: none Temp: 30 Min. 50 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	Soucon	S. Supervisor
Aaron Lachance	8.0	RC+D	S. Supervisor
Tony Rego	8.0	RC+D	Laborer
Mike Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	0.0	8.0	0.0
CAT 322 Excavator	8/19/13		0.0	8.0	0.0
JDeere 27D Excavator	↓		6.0	2.0	0.0
JDeere 250 Dump	8/27/13		6.0	2.0	0.0
JDeere 250 Dump	9/19/13		0.0	8.0	0.0
Lull	10/22/13		6.0	2.0	0.0
CAT 420 E			6.0	2.0	0.0
CAT D3			0.0	8.0	0.0

3. Work performed today:
Demob of dewatering pumps and associated piping onto flatbed trailers. Collected stockpile waste characterization sample from RRRH sediments USA71-WC-10253-01" and a from Red Cove sediments. → Alpha Lab courier picked up samples. Began to remove stone at the entrance to RRRH railroad tracks. Removed several small sandbags from pond inlet dam. Removed Rip-rap from Moore Dam areas.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and a review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/25/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 057 Date: 28 OCT 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mostly Sunny

Precipitation: None Temp: 30 Min. 60 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	SovCon	S. Superuisor
Aaron Lachance	8.0	RC+D	S. Superusor
Tony Rego	8.0	RC+D	Laborer
Mike Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	0.0	8.0	0.0
CAT 322 Excavator	8/19/13		0.0	8.0	0.0
JDeere 270 Excavator	↓		6.0	2.0	0.0
JDeere 250 Dump	8/27/13		6.0	2.0	0.0
JDeere 250 Dump	9/19/13		0.0	8.0	0.0
Lull	10/22/13		6.0	2.0	0.0
CAT 420 E			2.0	6.0	0.0
CAT D3	↓	↓	0.0	8.0	0.0

3. Work performed today:
Continued with Site Restoration (store removal adj to rr tracks), and again remand several smaller sandbags at the pond inlet dam.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and conducted a JSA review

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/28/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 058 Date: 29 Oct 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Clear

Precipitation: None Temp: 25 Min. 50 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.5	Sovcon	Sr Supervisor
Aaron Lachance	8.5	RC+D	Sr Supervisor
Tony Rego	8.5	RC+D	Laborer
Mike Rego	8.5	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	0.0	8.5	0.0
CAT 322 Excavator	8/19/13		0.0	8.5	0.0
JDeere 270 Excavator	↓		0.0	8.5	0.0
JDeere 250 Dump	8/27/13		0.0	8.5	0.0
JDeere 250 Dump	9/19/13		0.0	8.5	0.0
Lull	10/22/13		0.0	8.5	0.0
CAT 420E			0.0	8.5	0.0
CAT D3	↓		0.0	8.5	0.0
CAT mini-excavator	10/24/13 ↓	↓	8.0	0.5	0.0

3. Work performed today:
Using a mini-excavator (delivered today) and with help from RR flagman, we removed the large outer belt of sand bags from the pond inlet dam along with approx. 8 580 of the smaller sandbags. A decon pad for the trespassed SUV was constructed @ the ATP. Addition waste characterization for Red Cove sediments were collected and a lab courier picked them up.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. NA

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted tailgate safety mannig meety and reviewed applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, ~~except as noted above~~.

10/29/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 059 Date: 30 OCT 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: H rain

Precipitation: H rain Temp: 30 Min. 55 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	Sovlon	S. Supervisor
Aaron Lachance	8.0	RCTD	Sr Supervisor
Tony Rego	8.0	RCTD	Laborer
Mike Rego	8.0	RCTD	Laborer
Alex Ribeiro	8.0	RCTD	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	0.0	8.0	0.0
CAT 322 Excavator	8/19/13		0.0	8.0	0.0
John Deere 270 Excavator	↓		0.0	8.0	0.0
John Deere 250 Dump	8/27/13		2.0	6.0	0.0
John Deere 250 Dump	9/19/13		0.0	8.0	0.0
CAT 420E	10/22/13		2.0	6.0	0.0
CAT D3	↓		0.0	8.0	0.0
CAT mini	10/29/13 ↓	↓	0.0	8.0	0.0

3. Work performed today:
Manually removed sand from smaller sand bags @ pond inlet dam and filled 1g "supersacks". Continued with site restoration activities. The trespass SUV was retrieved @ ATP to be decon'ed (see Eric Sa memo w/results). The snow-fence removal of the perimeter was begun.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
~~N~~ XRF field screening of swipe samples of the trespass SUV.

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and reviewed JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except ~~as noted~~ above.

10/30/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 060 Date: 31 Oct 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Cloudy, fog

Precipitation: 1" rain Temp: 32 Min. 60 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	Sovlon	S. Supervisor
Aaron Lachance	8.0	RCHD	S. Supervisor
Tony Rego	8.0	RCHD	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	0.0	8.0	0.0
CAT 322 Excavator	8/19/13		0.0	8.0	0.0
JDeere 270 Excavator	↓		2.0	6.0	0.0
JDeere 250 Dump	8/27/13		2.0	6.0	0.0
JDeere 250 Dump	9/19/13		0.0	8.0	0.0
CAT 420E	10/22/13		0.0	8.0	0.0
CAT D3	↓		2.0	6.0	0.0
CAT mini	10/29/13 ↓	↓	6.0	2.0	0.0

3. Work performed today:
With help of rr flagman we proceeded to remove 2 large sandbags at pond inlet dam. Left 3 large sand bags in place. Crew on-site to to begin fence replacement at Red Cove => all posts set today.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and a review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

10/31/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 061 Date: 01 Nov 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: lt rain, windy

Precipitation: lt rain Temp: 55 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	5.0	SovCon	S. Supervisor
Erin Foley	3.0	SovCon	Env Sci
Aaron Lachance	8.0	RC+D	S. Supervisor
Mike Rego	8.0	RC+D	Laborer
Tony Reso	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → reset	Daily	0.0	8.0	0.0
CAT 322 Excavator	8/19/13		6.0	2.0	0.0
JDeere 270 Excavator	↓		6.0	2.0	0.0
JDeere 250 Dump	8/27/13		6.0	2.0	0.0
JDeere 250 Dump	9/19/13		0.0	8.0	0.0
CAT 420 E	10/22/13		0.0	8.0	0.0
CAT D3	↓		2.0	6.0	0.0
CAT mini	10/29/13		0.0	8.0	0.0

3. Work performed today:
Continued with site restoration/demob. Cleared Brush/Limb pile @ Red Cave. Continued to remove/regrade access road to SHL.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
Grass seed mix

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meety and a review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

11/1/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 062 Date: 04 NOV 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Sunny

Precipitation: none Temp: 80 Min. 40 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	Sovcon	S. Supervisor
Aaron Lachance	8.0	RC+D	S. Supervisor
Tony Rego	8.0	RC+D	Laborer
Mike Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	0.0	8.0	0.0
CAT 322 Excavator	8/19/13		0.0	8.0	0.0
JDeere 70 Excavator	↓		6.0	2.0	0.0
JDeere 250 Dump	8/27/13		2.0	6.0	0.0
JDeere 50 Dump	9/19/13		0.0	8.0	0.0
CAT 420 E	10/20/13		0.0	8.0	0.0
CAT D3	↓		6.0	2.0	0.0
CAT mini	10/29/13	↓	6.0	2.0	0.0

3. Work performed today:
With aid of reflagging we removed the last remaining large and small sandbags from the pond inlet dam. Grass seed was hand spread at the lower levels of Red Cove and was tracked-in w/ D3 Dozer. Also continued w/ site restoration activities.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meety and a review of JHAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
Bill Walas / Dave Roppel from PANAM said they want the clean sand from the sand bags adjacent to their tracks → We will leave SAND pile where it is.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

11/4/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 063 Date: 05/NOV 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mostly Sunny

Precipitation: None Temp: 25 Min. 35 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	SovCon	S. Superuisor
Aaron Lachance	8.0	RCHD	S- Superuisor
Mike Rego	6.25	RCHD	Laborer
Tony Rego	6.25	RCHD	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	Daily	0.0	8.0	0.0
CAT 322 Excavator	8/14/13		6.0	2.0	0.0
JDeere 470E Excavator	↓		0.0	8.0	0.0
JDeere 250 Dump	8/27/13		0.0	8.0	0.0
JDeere 250 Dump	9/9/13		0.0	8.0	0.0
CAT 40E	10/29/13 → 11/5/13		0.0	8.0	0.0
CAT D3	↓		0.0	8.0	0.0
CAT mini	10/29/13 → 11/5/13		0.0	8.0	0.0

3. Work performed today:
Continue with site restoration → deployed Jute Mats at Red Cove, continued to remove snow fence surrounding PSP.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:

N/A

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted tailgate safety meeting and a review of JSAs. — Laborer Mike Rego cut palm of hand w/ box cutter style knief while removing snow fence. Field First Aid was given to clean wound and cover it and as per Mike addition medical care is needed. Mike and Tony (Father and Son) departed site for medical treatment.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

[signature] 11/5/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 064 Date: 06 NOV 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mosty sunny

Precipitation: none Temp: 40 Min. 60 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Boraiec	8.0	SovCon	S. Supervisor
Aaron Lachance	8.0	RC+D	S. Supervisor
Mike Rego	8.0	RC+D	Laborer
Tony Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → present	daily	0.0	8.0	0.0
CAT 322 Excavator	8/19/13		6.0	2.0	0.0
J. Deere 270 Excavator			6.0	2.0	0.0
J Deere 250 Dump	8/27/13		0.0	8.0	0.0
J Deere 250 Dump	9/19/13		0.0	8.0	0.0
CAT D3	10/22/13		2.6	6.0	0.0

Mike Rego return to site @ 3 stiches to palm, as per Mike, he is fit for work.

3. Work performed today:
Continued with site restoration activities (deployment of Jute mats and complete removal of snow-fence around PSP. Begain breakdown of wood-barge.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
Shipment of Jute Mats (25 rolls).

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meety and a reviews of JSAs.

Injury on 11/5/13 is fit to work

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
~~None~~ Still need ~6" more height to have water flow over moore dam.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

11/6/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 065 Date: 07NOV13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: lt rain, clouds
Precipitation: lt rain Temp: 40 Min. 65 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Brouwer	8.0	SovCon	S. Supervisor
Laura Simkins	4.5	SovCon	Wetland Specialist
Rachel Leary	4.0	SovCon	PM
Aaron Lachance	8.0	RC+D	S. Supervisor
Mike Rego	8.0	RC+D	Laborer
Tony Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
Magnum Generator	8/15/13 → 11/7/13	Daily	0.0	8.0	0.0
CAT 322 Excavator	8/19/13 → present		2.0	4.0	2.0
JDeere 270 Excavator	↓		2.0	4.0	2.0
JDeere 250 Dump	8/27/13		2.0	4.0	2.0
JDeere 250 Dump	9/19/13		0.0	8.0	0.0
CAT D3	10/22/13	↓	2.0	6.0	0.0

3. Work performed today:
Continued with the deployment of Jute Mats @ RC-
Proceeded to continue with dismantling of wood
barse. Continued with site restoration/demob.
RCTD decon'ed heavy equip on-side today.
The fence replacement at Red Cove was completed
today.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meety and a review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None Water is now flowing over Moore Dam, Ran into Ayer DPW @ Moore Dam, they said they removed 2 beaver dams to fill Grave Pond and as a result PSP levels raised as well.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

11/7/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 066 Date: 08 Nov 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mostly clear

Precipitation: None Temp: 30 Min. 48 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	SovCon	S. Supervisor
Aaron Lachance	8.0	RC+D	S. Supervisor
Mark Lachance	8.0	RC+D	Operator
Tony Rego	8.0	RC+D	Laborer
Mike Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 322 Excavator	8/19/13 → present	Daily	6.0	2.0	0.0
J Deere 270 Excavator	↓		6.0	2.0	0.0
JDeere 250 Dump	8/27/13		0.0	8.0	0.0
JDeere 250 Dump	9/19/13		0.0	8.0	0.0
CAT D3	10/22/13 ↓	↓	4.0	4.0	0.0

3. Work performed today:
Continued with Site Restoration/demob
Continued w/ Jute Mat install and seeding at RC.
Worked Sediment Stockpiles to dry them out.
Returned EPA boat trailer to RC shoreline.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and a review of JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

11/8/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 067 Date: 1 Nov 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mostly clear

Precipitation: None Temp: 40 Min. 55 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	SouCon	S. Supervisor
Aaron Lachance	7.0	RC+D	S. Supervisor
Tony Rego	8.0	RC+D	Laborer
Mike Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 330 Excavator	8/19/13 → present	Daily	4.0	4.0	0.0
John Deere 270 Excavator	↓	↓	4.0	4.0	0.0
John Deere 50 Dump	8/27/13		2.0	6.0	0.0
John Deere 250 Dump	9/19/13		0.0	8.0	0.0
CAT D3	10/22/13	↓	0.0	8.0	0.0

3. Work performed today:
Continued w/ site restoration activities and prepare for T+D. Finished demobing wood barge.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted tailgate safety meety and a review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

11/11/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 068 Date: 11/12/13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: lt rain/snow

Precipitation: little Temp: 37 Min. 30 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8-5	SevCon	S. Supervisor
Aaron Lachance	8-5	RC+D	S. Supervisor
Tony Rego	8-5	RC+D	Laborer
Mike Rego	8-5	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 322 Excavator	8/19/13 → present	Daily	6.0	2.5	0.0
JDeere 270 Excavator	↓		6.0	2.5	0.0
JDeere 250 Dump	8/27/13		0.0	8.5	0.0
JDeere 250 Dump	9/19/13		0.0	8.5	0.0
CAT D3	10/22/13		0.0	8.5	0.0
CAT 330 D	11/12/13	↓	6.0	2.5	0.0

3. Work performed today: Began T+D of Red Cave Sediments
   → 16 loads out. (8 trucks x 2)
   Collected waste char samples for R.C.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. None

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and a review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

11/12/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 069 Date: 13Nov13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: mostly clear

Precipitation: none Temp: 30 Min. 35 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	SouCon	S. Supervisor
Sam DaVia	3.5	SouCon	Geologist
Tony Rego	8.0	RC+D	Laborer
Mike Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 320 Excavator	8/19/13 → present	Daily	6.0	2.0	0.0
Dove 270 Excavator	↓		6.0	2.0	0.0
Dove 250 Dump	8/27/13		0.0	8.0	0.0
Dove 250 Dump	9/4/13		0.0	8.0	0.0
CAT D3	10/22/13		1.0	7.0	0.0
CAT 330D	11/12/13 ↓	↓	6.0	2.0	0.0

3. Work performed today:
Continued w/ T+D of RC sediments → 14 loads out
Continued to solidify RC sediments.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
~~None~~ dump trailer load of Quicklime drying agent

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meety and a JSA reviewed.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

11/13/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 070 Date: 14 NOV 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: clear

Precipitation: none Temp: 28 Min. 50 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	Sovcon	S. Supervisor
Tony Rego	8.0	RC+D	Laborer
Mike Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 320 Excavator	8/19/13 → present	Daily	6.0	2.0	0.0
JDeere 270 Excavator	↓		6.0	2.0	0.0
JDeere 250 Dump	8/27/13		0.0	8.0	0.0
JDeere 250 Dump	9/19/13		1.0	7.0	0.0
CAT D3	10/20/13		1.0	7.0	0.0
CAT 330 D	11/12/13 ↓	↓	6.0	2.0	0.0

3. Work performed today:
Continued w/ T+D of RC sediments → 16 loads out
Continued w/ solidification of RC sediments.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and a review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

11/14/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 071 Date: 15 Nov 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Mosty clear

Precipitation: None Temp: 38 Min. 60 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	SouCon	S. Supervisor
Mike Rego	8.0	RC+D	Laborer
Tony Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 322 Excavator	8/19/13 → present	Daily	6.0	2.0	0.0
JDeere 270 Excavator	↓	↓	6.0	2.0	0.0
JDeere 250 Dump	8/27/13 → 11/15/13	↓	0.0	—	—
JDeere 250 Dump	9/19/13	↓	0.0	8.0	0.0
CAT D3	10/22/13	↓	1.0	7.0	0.0
CAT 330 D	11/12/13 → 11/15/13	↓	0.0	—	—

3. Work performed today:
Ballast sections of house loaded and removed from site along w/RC+D J. Deere 250 Dump (one remains) and WGF is CAT 330 D.
continued with site restoration activities.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
One dump trailer of quicklime drying agent.

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meeting and reviewed applicable JSAs

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

11/15/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 072 Date: 18 Nov 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: cloud

Precipitation: 1 hour Temp: 45 Min. 25 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	SovCon	S. Supervisor
Tony Rego	8.0	R C+D	Laborer
Mike Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 330 Excavator	8/19/13 → present	Daily	6.0	2.0	0.0
John Deere 270 Excavator	↓ ↓		6.0	2.0	0.0
John Deere 50 Dump	9/19/13 → 11/18/13		—	—	—
CAT D3	10/22/13 present		1.0	7.0	0.0
CAT 330	11/18/13 ↓	↓	—	—	—

3. Work performed today:
Continued to solidify RC sediments and perform site restoration activities. De Mobed J Deere 350 Dump and WLF's CAT 330D was dropped off in anticipation of THD activities.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and a review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

11/18/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 073 Date: 19 Nov 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: mostly clear

Precipitation: none Temp: 30 Min. 45 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	SovCon	S. Supervisor
Tony Reso	8.0	R C+D	Laborer
Mike Reso	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 322 Excavator	8/19/13 → present	Daily	6.0	2.0	0.0
→ Deere 270 Excavator	↓		6.0	2.0	0.0
CAT D3	10/22/13		1.0	7.0	0.0
CAT 330D	11/18/13 ↓	↓	6.0	2.0	0.0

3. Work performed today: Continued w/ T+P of RC sediments → 14 loads out.
Continued w/ site restoration activities.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and a review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

11/19/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 074 Date: 20Nov13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: clear

Precipitation: none Temp: 35 Min. 40 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	Sovcon	S. Supervisor
Tony Rego	8.0	RC+D	Laborer
Mike Rego	8.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 320 Excavator	8/19/13 → present	Daily	6.0	2.0	0.0
JDeere 270 Excavator	↓	↓	0.0	0.0	8.0
CAT D3	10/22/13		1.0	7.0	0.0
CAT 330 D	11/18/13 ↓		6.0	2.0	0.0

3. Work performed today: Continued w/ T+D of RC Sediments → 17 loads out
Collected confirmatory base samples from the stockpile areas (both RRRH + RC).

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

Conducted morning tailgate safety meety and a review of applicable JSAs

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

11/20/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 075 Date: 2 NOV 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Sunny, cloudy

Precipitation: none Temp: 14 Min. 30 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Sam Davis	8-0	SouCon	Geologist
Tony Rosa		R C+D	Laborer
Mike Rosa		R C+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 322 Excavator	8/19/13 → present	Daily			
JDeere 270 Excav	↓	↓			3.0
CAT D3	10/22/13				
CAT 330 D	11/10/13				

3. Work performed today: Continued w/ HD of RC Sediments → 26 loads out

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

for: SAM Dawn 11/21/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 076 Date: 22 NOV 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: rainy

Precipitation: yes Temp: 40 Min. 45 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Sam Davin	8.0	Sovcon	Geologist
Tony Reso	8.0	RC+D	Laborer
Mike Reso	8.0	RC+D	Laborer
John Curran	8.0	RC+D	Foreman

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 320 EX (w/ thumb)	8/19/13 → present	Daily			
JDeere 270 Excavator	↓	↓			
CAT D3	10/22/13				
CAT 330 D	11/8/13 ↓	↓			

3. Work performed today: Continued w/ TTD of RC sediments → 25 loads out

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:

None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).

None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

per SAM Dawn 11/22/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 077 Date: 25NOV13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: clear

Precipitation: none Temp: 20 Min. 35 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.0	SovCon	S. Supervisor
Tony Rego	8.0	RCTO	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 320 Excavator	8/19/13 → present	Daily	6.0	2.0	0.0
John Deere 70 Excavator	↓		6.0	2.0	0.0
CAT D3	10/22/13		1.0	7.0	0.0
CAT 330D	11/18/13 ↓	↓	6.0	2.0	0.0

3. Work performed today: Continued w/ THD of RC sediments → 6 loads out
Continued w/ site restoration activities.
Collected confirmatory base samples from staging areas → set up course for 11-26-13.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and a review of applicable JSA.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

11/25/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 078 Date: 26 Nov 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: lt rain/drizzle

Precipitation: _____ Temp: 30 Min. 40 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	7.0	SevCon	S. Supervisor
Tony Pego	7.0	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 320 Excavator	8/19/13 → present	Daily	4.0	3.0	0.0
John Deere 270 Excavator	↓		0.0	7.0	0.0
CAT D3	10/22/13		1.0	6.0	0.0
CAT 330D	11/18/13 → 11/26/13	↓	4.0	3.0	0.0

3. Work performed today: Continued w/ T+D of RC sediments → 5 loads out
Continued w/ site restoration activities

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and a Review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

11/26/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 079 Date: 03 DEC 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Clear

Precipitation: none Temp: 30 Min. 50 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	8.75	SovCon	S. Supervisor
Tony Rego	8.75	R C+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 322 Excavator	8/19/13 → present	Daily	4.0	4.75	0.0
John Deere 270 Excavator	↓	↓	0.0	8.75	0.0
CAT D3	10/22/13		2.0	6.75	0.0
CAT 330 D	12/3/13 ↓	↓	6.75	2.0	0.0

3. Work performed today: → 24 loads out
Begain TTD of RRRH sediments
Continued with site restoration activities.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and a review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

12/3/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 080 Date: 04 DEC 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: Clear

Precipitation: none Temp: 25 Min. 40 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borawiec	8.5	Sovlon	Sr. Supervisor
Tony Rego	8.5	RC+D	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 320 Excavator	8/14/13 → present	Daily	2.0	6.5	0.0
J. Deere 270 Excavator	↓		6.5	2.0	0.0
CAT D3	10/22/13		2.0	6.5	0.0
CAT 330 D	12/3/13 →	↓	6.5	2.0	0.0

3. Work performed today:
Continued with Red Cove T+D → 2 loads out → RC completed.
Continued with RRRH T+D → 19 loads out → RRRH complete.
Collected confirmatory base samples from staging areas

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and a review of applicable JSAs

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
All T+D completed today, we pre-loaded one load from RRRH to be shipped 12/5/13.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

12/4/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 081 Date: 05DEC13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: clear

Precipitation: none Temp: 30 Min. 45 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borawiec	8.0	SavCon	S. Supervisor
Tony Rego	8.0	12CHD	Laborer

2. Operating Plant or Equipment. (Not hand tools)

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
CAT 322 Excavator	8/19/13→present	Daily	4.0	4.0	0.0
John Deere 270 Excavator	↓	↓	3.0	5.0	0.0
CAT D3	10/23/13		1.0	7.0	0.0
CAT 330D	8/3/13→12/5/13	↓	0.5	7.5	0.0

3. Work performed today:
Re-graded RRRH staging areas and RC areas. Courier on-site to pick up confirmatory samples from 12/4/13.

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
None

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted morning tailgate safety meeting and a review of applicable JSAs.

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
Final grading cannot be completed due to frozen ground conditions. JDeere 270 Excavator cat 320 and D3 Dozer will be removed on 12/9/13. As per WM, waste profile 491491NH(RC) is 4,458.69 tons and 101450MA(ERRH) is 1,350.59 tons.

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

12/5/13

Sovereign Consulting QC Representative
Date

SOVEREIGN CONSULTING INC.
DAILY QUALITY CONTROL REPORT

Daily Report No.: 082 Date: 26 DEC 13

Contract No. **W912WJ-10-D-003 Task Order No. 005**

Project Title & Location: **Non-Time-Critical Removal Actions at Red Cove & Railroad Round House (SA 71), Area of Concern (AOC) 72, Former Fort Devens Army Installations, Devens, MA**

Weather: clear

Precipitation: none Temp: 20 Min. 30 Max.

1. Contract/Subcontractors and Area of Responsibility

Name	Hours	Employer	Location/Description of Work
Bill Borowiec	10.5	Sov Con	Sr. Supervisor

2. Operating Plant or Equipment. (Not hand tools) No heavy equipment on-site

Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair

3. Work performed today:
MOB to site to neutrize decon fluids drum and perform site inspection. Decon fluid drum is empty (due to evaporation?). Loaded 2 empty drums to vechicle and transported off-site. No heavy equip is on-site. Timber mats remain along with 3 cast-concrete structures on-site. RC+D will remove mats + structures as well as perform finish grading during spring thaw-

4. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. N/A

5. Test performed as required by plans and/or specifications:
None

6. Material received:
N/A

7. Submittals Reviewed: N/A

Submittal No.	Spec/Plan Reference	By Whom	Action

8. Offsite surveillance activities, including action taken:
None

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).
Conducted tailgate safety meety and reviewed JSAs

10. Remarks: (Instructions received or given, Conflict(s) in Plans and/or specifications).
None

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

12/26/13

Sovereign Consulting QC Representative
Date

APPENDIX J

Data Validation Reports

(See CD Included Separately)

Data Quality Evaluation
for
Former Fort Devens Railroad Roundhouse and Plow Shop Pond
Sediment Samples
Collected July through December 2013

Introduction

Sovereign Consulting, Inc. (Sovereign) collected 236 surface water and sediment samples from the Railroad Roundhouse and Plow Shop Pond, Devens, Massachusetts, on July 30 through December 4, 2013, of which 100 sediment samples required data validation. The samples were analyzed at Alpha Analytical Laboratory in Westborough, Massachusetts, for total metals.

The samples were analyzed for the following site-specific parameter lists:

Plow Shop Pond (Red Cove):

- Total arsenic by SW-846 Method 6020A.

Railroad Roundhouse (Study Area [SA] 71):

- Total antimony by SW-846 Method 6020A.

All validated analytical results, including final data qualifiers, are presented in the attached tables.

The results were evaluated for acceptability in accordance with the laboratory's defined acceptance limits and the criteria presented in the *Quality Assurance Project Plan, for Contaminated Sediment in Plow Shop Pond Area of Contamination (AOC) 72, Former Fort Devens Army Installation, Devens, Massachusetts* (Sovereign, 2013) (QAPP). The data qualification was performed in accordance with the QAPP requirements and the applicable protocols presented in the *Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses* (EPA Region I, 1996).

Sample Shipment and Receipt

All samples were delivered directly to the laboratory each day from July 30 through December 4, 2013. The samples arrived at the laboratory with temperatures at or below 6 °C, with eight exceptions, and the laboratory noted that all sample coolers were packed with sufficient quantities of ice in the field. All samples were appropriately preserved in accordance with the requirements presented in Table 1.

All SA71 samples collected on 10/09/13 were received by the laboratory at a temperature above that designated in Table 1. In the professional opinion of the reviewer and in accordance with the Region 1 USEPA data validation guidance for inorganic compounds, the analyte of interest, antimony, is stable above the temperature threshold and no qualification was required.

Holding Times

All samples were extracted and analyzed in accordance with the method and holding time requirements presented in Table 1.

Equipment Blanks

Equipment blanks, also known as rinsate blanks, are samples of analyte-free water that are pumped through or poured over reusable sampling equipment to confirm decontamination efficacy. Equipment blanks are associated with all samples collected at a site using the same type of reusable equipment employed to collect the blank. Equipment blank contamination and the effects thereof are presented in the method-specific discussions below.

Total Metals Analysis

Thirty-eight sediment samples were analyzed for total antimony and sixty-two sediment samples were analyzed for total arsenic using EPA SW-846 Method 6020A. In addition, the laboratory analyzed nineteen field duplicates (associations in the table below) and twenty-five equipment blanks.

Parent Sample	Field Duplicate
SA71-SD-09-001-082613	FD-082613
SA71-SD-13-001-082813	FD-082813-01
SA71-SD-16-001-083013	FD-083013-01
SA71-SD-05-002-090613	FD-090613-01
SA71-SD-13-002-091013	FD-091013-01
RC-SD-52-001-091113	FD-091113-01
RC-SD-42-001-091213	FD-091213-01
RC-SD-33-001-091313	FD-091313-01
RC-SD-50-001-091713	FD-091713-01
RC-SD-41-001-091813	FD-091813-01
SA71-SD-11-003-091913	FD-091913-02
RC-SD-40-001-091913	FD-091913-01
RC-SD-34-001-092513	FD-092513-01
RC-SD-46-001-100213	FD-100213-01
RC-SD-28-001-100313	FD-100313-001
RC-SD-01-001-100713	FD-100713-01
RC-SD-48-001-100813	FD-100813-01
SA-71-SD-24-001-100913	FD-100913-01
SA71-SD-20-002-101113	FD-101113-01

Laboratory Method and Equipment Blank Results: Twenty-five equipment blanks and twenty-two method blanks were associated with the samples analyzed for metals. Target analytes were detected at levels above the respective limit of detection (LOD) in eighteen equipment blanks and five method blanks. Seventeen total metals method blanks were free from contamination.

The method blanks for batches WG635915, WG636412, WG640718, WG641401, and WG642616 had detections above the LOD for arsenic. All arsenic results for the associated samples were detections above the respective action level and no qualification was required.

Equipment blanks EB-091113-02, EB-091313-01, EB-091913-02, EB-092013-01, EB-092313-01, EB-092413-01, and EB-100913-01 were free from contamination. Equipment blanks EB-082613-01, EB-082813-01, EB-082913-01, EB-083013-01, EB-090613-01, EB-091013-01, EB-091113-01, EB-100413-001,

and EB-101113-01 exhibited detections above the LOD for antimony. Equipment blanks EB-091213-01, EB-091713-01, EB-091813-01, EB-091913-01, EB-092513-01, EB-100213-01, EB-100313-01, EB-100413-001, EB-100713-01, and EB-100813-01 exhibited detections above the LOD for arsenic. All arsenic and antimony results for the associated samples were detections above the respective action level and no qualification was required.

Field Duplicate Sample Results: The target metals results for samples SA71-SD-09-001-082613, SA-71-SD-05-002-090613, RC-SD-42-001-091213, RC-SD-33-001-091313, RC-SD-50-001-091713, RC-SD-41-001-091813, RC-SD-34-001-092513, RC-SD-46-001-100213, RC-SD-01-001-100713, RC-SD-48-001-100813, and their associated field duplicates showed acceptable precision for all calculated relative percent difference (RPD) results or acceptable absolute differences for all low-level results.

For samples SA-71-SD-13-001-082813, SA-71-SD-16-001-083013, SA-71-SD-11-003-091913, SA-71-SD-24-001-100913, SA71-SD-20-002-101113, and the associated duplicates, the results yielded high calculated RPDs for antimony. The antimony results for samples FD-082813-01, SA-71-SD-13-001-082813, SA-71-SD-16-001-083013, FD-083013-01, SA-71-SD-11-003-091913, FD-091913-02, SA-71-SD-20-001-100913, FD-100913-01, SA71-SD-20-002-101113, and FD-101113-01 were greater than five times the reporting limit (RL) and were qualified **J**.

For sample SA71-SD-13-002-091013 and the associated field duplicate, the results yielded a high calculated RPD for antimony. However, the parent sample result was a detection less than five times the RL, and the difference between the results for the duplicate pair was greater than the RL. The antimony results for samples FD-091013-01 and SA71-SD-13-002-091013 were detections above the RL and were qualified **J**.

For samples RC-SD-52-001-091113, RC-SD-40-001-091913, RC-SD-28-001-100313, and the associated duplicates, the results yielded high calculated RPDs for arsenic. The arsenic results for samples FD-091113-01, RC-SD-52-001-091113, RC-SD-40-001-091913, FD-091913-01, RC-SD-28-001-100313, and FD-100313-001 were greater than five times the RL and were qualified **J**.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results: Twenty-five sets of MS/MSD samples were analyzed for total antimony or arsenic. All recovery and RPD results were within the project acceptance limits for analyses performed on samples SA71-SD-13-002-091013, RC-SD-52-001-091113, RC-SD-42-001-091213, RC-SD-33-001-091313, RC-SD-40-001-091913, RC-SD-60-001-092413, RC-SD-34-001-092513, RC-SD-46-001-100213, RC-WC-100113-01, RC-SD-23-001-100213, RC-SD-28-001-100313, RC-SD-13-001-100313, RC-SD-01-001-100713, and RC-SD-41-002-100813.

The RPD criteria were met for the MS/MSD analyses performed on samples SA71-SD-09-001-082613, SA-71-SD-16-001-083013, SA-71-SD-05-002-090613, SA-71-SD-11-003-091913, and SA-71-SD-24-001-100913, whereas both recoveries were below the lower control limit for target metal antimony. The antimony results for samples SA71-SD-09-001-082613, FD-082613, SA71-SD-18-001-082613, SA71-SD-08-001-082613, SA-71-SD-01-001-082913, SA-71-SD-11-001-083013, SA-71-SD-10-001-083013, SA-71-SD-17-001-083013, SA-71-SD-16-001-083013, FD-083013-01, SA-71-SD-05-002-090613, SA-71-SD-04-002-090613, SA-71-SD-06-002-090613, FD-090613-01, SA-71-SD-15-002-090613, SA-71-SD-14-002-090613, SA-71-SD-11-003-091913, FD-091913-02, SA-71-SD-24-001-100913, SA-71-SD-23-002-100913, SA-71-SD-22-002-100913, SA-71-SD-21-001-100913, SA-71-SD-20-001-100913, SA-71-SD-19-001-100913, and FD-100913-01 were detections above the RL and were qualified **J**.

The recovery and RPD criteria for the MS/MSD analyses performed on sample SA-71-SD-13-001-082813 were above the respective upper control limit for target metal antimony. The antimony results for samples SA-71-SD-07-001-082813, SA-71-SD-06-001-082813, SA-71-SD-05-001-082813, SA-71-SD-04-001-082813, SA-71-SD-15-001-082813, SA-71-SD-14-001-082813, SA-71-SD-13-001-082813, SA-71-SD-03-001-082813, SA-71-SD-12-001-082813, SA-71-SD-02-001-082813, and FD-082813-01 were detections above the RL and were qualified **J**.

The RPD criteria were met for the MS/MSD analyses performed on sample RC-SD-50-001-091713, whereas both recoveries were above the upper control limit for target metal arsenic. The arsenic results for samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01 were detections above the RL and were qualified **J**.

The recovery and RPD criteria for the MS/MSD analyses performed on sample RC-SD-41-001-091813 were outside of the respective control limits for target metal arsenic. The arsenic concentration for the parent sample was greater than four times the spiked amount, and therefore, the MS/MSD results were not applicable; no qualification was required.

The recovery and precision criteria were met for the MS/MSD analyses performed on sample RC-SD-49-001-092013, with the exception of one recovery above the upper control limit for arsenic. The arsenic results for samples RC-SD-49-001-092013, RC-SD-53-001-092013, and RC-SD-54-001-092313 were detections above the RL and were qualified **J**.

For the MS/MSD analyses performed on sample SA71-SD-23-001-100413 one recovery and the RPD were outside the respective control limits for antimony. The antimony results for samples SA71-SD-23-001-100413 and SA71-SD-22-001-100413 were detections above the RL and were qualified **J**.

The RPD criteria were met for the MS/MSD analyses performed on sample SA71-SD-20-002-101113, whereas both recoveries were above the upper control limit for target metal antimony. The antimony concentration for the parent sample was greater than four times the spiked amount, and therefore, the MS/MSD results were not applicable; no qualification was required.

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Results: Twenty-two LCS standards were analyzed for total antimony or arsenic, and all yielded recoveries within the project quality control (QC) limits.

Laboratory Duplicate Results: Laboratory duplicate analyses were performed for total antimony and arsenic. All precision results (or absolute differences for low-level concentrations) were within the project acceptance limits for the duplicate analyses performed on samples SA71-SD-09-001-082613, SA-71-SD-13-001-082813, SA-71-SD-16-001-083013, SA-71-SD-05-002-090613, SA71-SD-13-002-091013, RC-SD-52-001-091113, RC-SD-42-001-091213, RC-SD-33-001-091313, SA-71-SD-11-003-091913, RC-SD-40-001-091913, RC-SD-49-001-092013, RC-SD-60-001-092413, RC-SD-34-001-092513, RC-WC-100113-01, RC-SD-23-001-100213, RC-SD-13-001-100313, RC-SD-01-001-100713, and RC-SD-41-002-100813.

For sample RC-SD-50-001-091713, the calculated RPD was above the QAPP control limit and the arsenic results for samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01 were qualified **J**.

For samples SA71-SD-23-001-100413, SA-71-SD-24-001-100913, and SA71-SD-20-002-101113, the calculated RPDs were also above the QAPP control limit and the antimony results for samples SA71-SD-23-001-100413, SA71-SD-22-001-100413, SA-71-SD-24-001-100913, SA-71-SD-23-002-100913, SA-71-SD-22-002-100913, SA-71-SD-21-001-100913, SA-71-SD-20-001-100913, SA-71-SD-19-001-100913, FD-100913-01, SA71-SD-20-002-101113, and FD-101113-01 were qualified **J**.

Conclusion

Data packages were reviewed for adherence to acceptable laboratory practices. Based on the elements evaluated (including holding times, blank sample results, duplicate samples, MS/MSD recoveries and precision, and LCS/LCSD recoveries and precision), all data may be reported and used without qualification, except as summarized below.

Total Metals Analysis

- The non-standard Q-qualifiers applied by the laboratory for contaminated ICSAs, initial calibration and/or continuing calibration blanks were removed from the following results: antimony for samples SA-71-SD-07-001-082813, SA-71-SD-06-001-082813, SA-71-SD-05-001-082813, SA-71-SD-04-001-082813, SA-71-SD-15-001-082813, SA-71-SD-14-001-082813, SA-71-SD-13-001-082813, SA-71-SD-03-001-082813, SA-71-SD-12-001-082813, SA-71-SD-02-001-082813, FD-082813-01, SA-71-SD-01-001-082913, SA-71-SD-11-001-083013, SA-71-SD-10-001-083013, SA-71-SD-17-001-083013, SA-71-SD-16-001-083013, FD-083013-01, SA-71-SD-05-002-090613, SA-71-SD-04-002-090613, SA-71-SD-06-002-090613, FD-090613-01, SA-71-SD-15-002-090613, SA-71-SD-14-002-090613, SA71-SD-01-002-091013, SA71-SD-11-002-091013, SA71-SD-03-002-091013, SA71-SD-13-002-091013, FD-091013-01, SA-71-SD-07-002-091113, SA-71-SD-11-003-091913, and FD-091913-02; and arsenic for samples RC-SD-52-001-091113, FD-091113-01, RC-SD-43-001-091113, RC-SD-51-001-091213, RC-SD-42-001-091213, RC-SD-32-001-091213, FD-091213-01, RC-SD-33-001-091313, FD-091313-01, RC-SD-50-001-091713, RC-SD-55-001-091713, FD-091713-01, RC-SD-41-001-091813, FD-091813-01, RC-SD-40-001-091913, FD-091913-01, RC-SD-49-001-092013, RC-SD-53-001-092013, RC-SD-54-001-092313, RC-SD-60-001-092413, RC-SD-58-001-092413, RC-SD-57-001-092413, RC-SD-56-001-092413, RC-SD-59-001-092413, RC-SD-44-001-092513, RC-SD-35-001-092513, RC-SD-34-001-092513, FD-092513-01, RC-SD-25-001-092513, RC-SD-36-001-100213, RC-SD-37-001-100213, RC-SD-38-001-100213, RC-SD-39-001-100213, RC-SD-45-001-100213, RC-SD-46-001-100213, RC-SD-47-001-100213, FD-100213-01, RC-SD-23-001-100213, RC-SD-24-001-100213, RC-SD-29-001-100213, RC-SD-30-001-100213, RC-SD-31-001-100213, RC-22-001-100213, RC-SD-19-001-100313, RC-SD-20-001-100313, RC-SD-21-001-100313, RC-SD-26-001-100313, RC-SD-27-001-100313, RC-SD-28-001-100313, FD-100313-001, RC-SD-13-001-100313, RC-SD-18-001-100313, RC-SD-10-001-100313, RC-SD-14-001-100313, RC-SD-15-001-100313, RC-SD-16-001-100313, RC-SD-06-001-100413, RC-SD-07-001-100413, RC-SD-08-001-100413, RC-SD-11-001-100413, RC-SD-12-001-100413, RC-SD-17-001-100413, RC-SD-01-001-100713, RC-SD-02-001-100713, RC-SD-03-001-100713, RC-SD-04-001-100713, RC-SD-05-001-100713, FD-100713-01, RC-SD-09-001-100713, RC-SD-40-002-100713, RC-SD-41-002-100813, RC-SD-48-001-100813, and FD-100813-01.

- Due to unacceptable laboratory duplicate precision, the following results were qualified as estimated detections (**J**): arsenic in samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01; and antimony in samples SA71-SD-23-001-100413, SA71-SD-22-001-100413, SA-71-SD-24-001-100913, SA-71-SD-23-002-100913, SA-71-SD-22-002-100913, SA-71-

SD-21-001-100913, SA-71-SD-20-001-100913, SA-71-SD-19-001-100913, FD-100913-01, SA71-SD-20-002-101113, and FD-101113-01.

- On account of one or more low MS /MSD recoveries and/or a low RPD, target metal antimony was qualified as estimated detections (J) in the following samples: SA71-SD-09-001-082613, FD-082613, SA71-SD-18-001-082613, SA71-SD-08-001-082613, SA-71-SD-01-001-082913, SA-71-SD-11-001-083013, SA-71-SD-10-001-083013, SA-71-SD-17-001-083013, SA-71-SD-16-001-083013, FD-083013-01, SA-71-SD-05-002-090613, SA-71-SD-04-002-090613, SA-71-SD-06-002-090613, FD-090613-01, SA-71-SD-15-002-090613, SA-71-SD-14-002-090613, SA-71-SD-11-003-091913, FD-091913-02, SA71-SD-23-001-100413, SA71-SD-22-001-100413, SA-71-SD-24-001-100913, SA-71-SD-23-002-100913, SA-71-SD-22-002-100913, SA-71-SD-21-001-100913, SA-71-SD-20-001-100913, SA-71-SD-19-001-100913, and FD-100913-01.

- As a result of one or more high MS/MSD recoveries and/or a high precision value, the following samples were qualified as estimated detections (**J**): antimony in samples SA-71-SD-07-001-082813, SA-71-SD-06-001-082813, SA-71-SD-05-001-082813, SA-71-SD-04-001-082813, SA-71-SD-15-001-082813, SA-71-SD-14-001-082813, SA-71-SD-13-001-082813, SA-71-SD-03-001-082813, SA-71-SD-12-001-082813, SA-71-SD-02-001-082813, and FD-082813-01; and arsenic in samples RC-SD-50-001-091713, RC-SD-55-001-091713, FD-091713-01, RC-SD-49-001-092013, RC-SD-53-001-092013, and RC-SD-54-001-092313.

- Due to unacceptable field duplicate precision, the following results were qualified as estimated detections (J): antimony in samples FD-082813-01, SA-71-SD-13-001-082813, SA-71-SD-16-001-083013, FD-083013-01, SA71-SD-13-002-091013, FD-091013-01, SA-71-SD-11-003-091913, FD-091913-02, SA-71-SD-24-001-100913, FD-100913-01, SA71-SD-20-002-101113, and FD-101113-01; and arsenic in samples RC-SD-52-001-091113, FD-091113-01, RC-SD-40-001-091913, FD-091913-01, RC-SD-28-001-100313, and FD-100313-001.

TABLE 1
Sample Preparation and Analysis Methods, Containers, Holding Times, and Preservatives

Parameter	Analytical Method	Sample Container	Preservation	Holding Time
Aqueous Samples				
Metals	SW6020A	1 x 1-L HDPE	4 ° ± 2°C, HNO_3 to pH <2	6 Months
Solid Samples				
Metals	SW6020A	2 x 8 oz. amber glass bottles	4 ° ± 2°C	6 Months

°C – Degrees Celsius
HNO_3 – Nitric Acid
HDPE – High Density Polyethylene
L – Liter

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1316595
Laboratory: Alpha Analytical Laboratories	Date: 01/02/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (01/14/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
SA71-SD-09-001-082613	L1316595-01	WG631830	Sediment
FD-082613	L1316595-02	WG631830	Sediment
SA71-SD-18-001-082613	L1316595-03	WG631830	Sediment
EB-082613-01	L1316595-04	WG631770	Water QC
SA71-SD-08-001-082613	L1316595-05	WG631830	Sediment

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted.

Qualification: None required.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA71-SD-09-001-082613 from this SDG. The RPD met the QAPP control limit.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG631830 met all %R control limits established in the QAPP.

The LCS for batch WG631770 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA71-SD-09-001-082613 from this SDG. The RPD results met the QAPP control limits, whereas the %R results were below the lower control limit (44% MS and 47% MSD). The antimony results for samples SA71-SD-09-001-082613, FD-082613, SA71-SD-18-001-082613, and SA71-SD-08-001-082613 were detections above the RL and should be qualified J.

The MS/MSD analyses performed for batch WG631770 were associated with a sample meant for QC purposes only and were not evaluated.

Qualification: **The antimony results for samples SA71-SD-09-001-082613, FD-082613, SA71-SD-18-001-082613, and SA71-SD-08-001-082613 were qualified J.**

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank, analyzed on 08/27/13 for batch WG631830, was associated with all sediment samples in this SDG and was free from contamination.

The method blank, analyzed on 08/27/13 for batch WG631770, was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-082613-01, was associated with all samples in this SDG and was contaminated with antimony (0.3600 µg/L), yielding an action level of 0.0594 mg/Kg. All associated antimony results were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-082613 was a field duplicate of sample SA71-SD-09-001-082613. The calculated RPD for antimony (1.3%) was within the QAPP control limits.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
SA71-SD-09-001-082613	Antimony	2.36	--	2.36	J
FD-082613	Antimony	2.39	--	2.39	J
SA71-SD-18-001-082613	Antimony	0.702	--	0.702	J
SA71-SD-08-001-082613	Antimony	2.81	--	2.81	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1316812
Laboratory: Alpha Analytical Laboratories	Date: 01/02/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (01/14/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
SA-71-SD-07-001-082813	L1316812-01	WG632504	Sediment
SA-71-SD-06-001-082813	L1316812-02	WG632504	Sediment
SA-71-SD-05-001-082813	L1316812-03	WG632504	Sediment
SA-71-SD-04-001-082813	L1316812-04	WG632504	Sediment
SA-71-SD-15-001-082813	L1316812-05	WG632504	Sediment
SA-71-SD-14-001-082813	L1316812-06	WG632504	Sediment
SA-71-SD-13-001-082813	L1316812-07	WG632504	Sediment
SA-71-SD-03-001-082813	L1316812-08	WG632504	Sediment
SA-71-SD-12-001-082813	L1316812-09	WG632504	Sediment
SA-71-SD-02-001-082813	L1316812-10	WG632504	Sediment
FD-082813-01	L1316812-11	WG632504	Sediment
EB-082813-01	L1316812-12	WG632505	Water QC

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, ICB and CCB analyzed for batch WG632504 contained target analyte antimony above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA71-SD-13-001-082813 from this SDG. The RPD met the QAPP control limit.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG632504 met all %R control limits established in the QAPP.

The LCS for batch WG632505 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA-71-SD-13-001-082813 from this SDG. The %R and RPD results were above the QAPP upper control limits (565% MS, 190% MSD, and 59% RPD). The antimony results for all sediment samples in this SDG were detections above the RL and should be qualified J.

Qualification: **The antimony results for all sediment samples in this SDG were qualified J.**

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank, analyzed on 08/30/13 for batch WG632504, was associated with all sediment samples in this SDG and was free from contamination.

The method blank, analyzed on 08/30/13 for batch WG632505, was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-082813-01, was associated with all samples in this SDG and was contaminated with antimony (0.1394 µg/L), yielding an action level of 0.0230 mg/Kg. All associated antimony results were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-082813-01 was a field duplicate of sample SA-71-SD-13-001-082813. The calculated RPD for antimony (23.1%) was above the QAPP control limit and both results should be qualified J.

Qualification: **The antimony results for samples FD-082813-01 and SA-71-SD-13-001-082813 were qualified J.**

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
SA-71-SD-07-001-082813	Antimony	6.05	Q	6.05	J
SA-71-SD-06-001-082813	Antimony	6.37	Q	6.37	J
SA-71-SD-05-001-082813	Antimony	5.59	Q	5.59	J
SA-71-SD-04-001-082813	Antimony	5.95	Q	5.95	J
SA-71-SD-15-001-082813	Antimony	8.28	Q	8.28	J
SA-71-SD-14-001-082813	Antimony	6.66	Q	6.66	J
SA-71-SD-13-001-082813	Antimony	10.4	Q	10.4	J

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
SA-71-SD-03-001-082813	Antimony	5.98	Q	5.98	J
SA-71-SD-12-001-082813	Antimony	3.23	Q	3.23	J
SA-71-SD-02-001-082813	Antimony	4.53	Q	4.53	J
FD-082813-01	Antimony	8.25	Q	8.25	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1316932
Laboratory: Alpha Analytical Laboratories	Date: 01/02/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (01/14/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
SA-71-SD-01-001-082913	L1316932-01	WG633142	Sediment
EB-082913-01	L1316932-02	WG633143	Water QC

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA analyzed for batch WG633142 contained target analyte antimony above the QAPP limit of detection; this QC element is outside the scope of Level II validation and was not evaluated. The non-standard Q-qualifier applied by the laboratory to the antimony result in sample SA-71-SD-01-001-082913 should be removed.

> ***Qualification:*** **The non-standard Q-qualifier applied by the laboratory to the antimony result in sample SA-71-SD-01-001-082913 was removed.**

Sample Delivery and Condition – Both samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – Both samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA-71-SD-16-001-083013 from SDG L1317005. The RPD met the QAPP control limit.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG633142 met all %R control limits established in the QAPP.

The LCS for batch WG633143 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA-71-SD-16-001-083013 from SDG L1317005. The RPD result met the QAPP control limits, whereas the %R results were below the lower control limit (57% MS and 64% MSD). The antimony result for sample SA-71-SD-01-001-082913 was a detection above the RL and should be qualified J.

Qualification: **The antimony result for sample SA-71-SD-01-001-082913 was qualified J.**

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank, analyzed on 09/03/13 for batch WG633142, was associated with sample SA-71-SD-01-001-082913 and was free from contamination.

The method blank, analyzed on 09/03/13 for batch WG633143, was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-082913-01, was associated with sample SA-71-SD-01-001-082913 in this SDG and was contaminated with antimony (0.1104 µg/L), yielding an action level of 0.0182 mg/Kg. The antimony result for sample SA-71-SD-01-001-082913 was a detection above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – No field duplicate was associated with the field sample in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
SA-71-SD-01-001-082913	Antimony	6.16	Q	6.16	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1317005
Laboratory: Alpha Analytical Laboratories	Date: 01/03/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (01/15/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
SA-71-SD-11-001-083013	L1317005-01	WG633142	Sediment
SA-71-SD-10-001-083013	L1317005-02	WG633142	Sediment
SA-71-SD-17-001-083013	L1317005-03	WG633142	Sediment
SA-71-SD-16-001-083013	L1317005-04	WG633142	Sediment
FD-083013-01	L1317005-05	WG633142	Sediment
EB-083013-01	L1317005-06	WG633222	Water QC

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA analyzed for batch WG633142 contained target analyte antimony above the QAPP limit of detection; this QC element is outside the scope of Level II validation and was not evaluated. The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA-71-SD-16-001-083013 from this SDG. The RPD met the QAPP control limit.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG633142 met all %R control limits established in the QAPP.

The LCS for batch WG633222 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA-71-SD-16-001-083013 from this SDG. The RPD result met the QAPP control limits, whereas the %R results were below the lower control limit (57% MS and 64% MSD). The antimony results for all associated samples were detections above the RL and should be qualified J.

The MS for batch WG633222 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: **The antimony results for all sediment samples were qualified J.**

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank, analyzed on 09/03/13 for batch WG633142, was associated with all sediment samples in this SDG and was free from contamination.

The method blank, analyzed on 09/03/13 for batch WG633222, was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-083013-01, was associated with all samples in this SDG and was contaminated with antimony (0.2620 µg/L), yielding an action level of 0.0432 mg/Kg. The antimony results for all samples were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-083013-01 was a field duplicate of sample SA-71-SD-16-001-083013. The calculated RPD for antimony (42.5%) was above the QAPP control limit and both results should be qualified J.

Qualification: **The antimony results for samples FD-083013-01 and SA-71-SD-16-001-083013 were qualified J.**

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
SA-71-SD-11-001-083013	Antimony	10.1	Q	10.1	J
SA-71-SD-10-001-083013	Antimony	2.89	Q	2.89	J
SA-71-SD-17-001-083013	Antimony	1.18	Q	1.18	J
SA-71-SD-16-001-083013	Antimony	2.04	Q	2.04	J
FD-083013-01	Antimony	3.14	Q	3.14	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1317463
Laboratory: Alpha Analytical Laboratories	Date: 01/03/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (01/15/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
SA-71-SD-05-002-090613	L1317463-01	WG634625	Sediment
SA-71-SD-04-002-090613	L1317463-02	WG634625	Sediment
SA-71-SD-06-002-090613	L1317463-03	WG634625	Sediment
FD-090613-01	L1317463-04	WG634625	Sediment
EB-090613-01	L1317463-05	WG634627	Water QC
SA-71-SD-15-002-090613	L1317463-06	WG634625	Sediment
SA-71-SD-14-002-090613	L1317463-07	WG634625	Sediment

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA analyzed for batch WG634625 contained target analyte antimony above the QAPP limit of detection; this QC element is outside the scope of Level II validation and was not evaluated. The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA-71-SD-05-002-090613 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG634627 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG634625 met all %R control limits established in the QAPP.

The LCS for batch WG634627 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA-71-SD-05-002-090613 from this SDG. The RPD result met the QAPP control limits, whereas the %R results were below the lower control limit (65% MS and 46% MSD). The antimony results for all associated samples were detections above the RL and should be qualified J.

The MS for batch WG634627 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: **The antimony results for all sediment samples were qualified J.**

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank, analyzed on 09/10/13 for batch WG634625, was associated with all sediment samples in this SDG and was free from contamination.

The method blank, analyzed on 09/10/13 for batch WG634627, was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-090613-01, was associated with all samples in this SDG and was contaminated with antimony (0.1054 µg/L), yielding an action level of 0.0174 mg/Kg. The antimony results for all samples were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-090613-01 was a field duplicate of sample SA-71-SD-05-002-090613. The calculated RPD for antimony (12.7%) was within the QAPP control limits.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
SA-71-SD-05-002-090613	Antimony	6.93	Q	6.93	J
SA-71-SD-04-002-090613	Antimony	7.81	Q	7.81	J
SA-71-SD-06-002-090613	Antimony	3.08	Q	3.08	J
FD-090613-01	Antimony	6.10	Q	6.10	J
SA-71-SD-15-002-090613	Antimony	2.89	Q	2.89	J
SA-71-SD-14-002-090613	Antimony	7.52	Q	7.52	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1317704
Laboratory: Alpha Analytical Laboratories	Date: 01/03/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (01/15/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
SA71-SD-01-002-091013	L1317704-01	WG635275	Sediment
SA71-SD-11-002-091013	L1317704-02	WG635275	Sediment
SA71-SD-03-002-091013	L1317704-03	WG635275	Sediment
SA71-SD-13-002-091013	L1317704-04	WG635275	Sediment
FD-091013-01	L1317704-05	WG635275	Sediment
EB-091013-01	L1317704-06	WG635276	Water QC

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA analyzed for batch WG635275 contained target analyte antimony above the QAPP limit of detection; this QC element is outside the scope of Level II validation and was not evaluated. The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the antimony results in all sediment samples were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA71-SD-13-002-091013 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG635276 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG635275 met all %R control limits established in the QAPP.

The LCS for batch WG635276 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA71-SD-13-002-091013 from this SDG. All %R and RPD results met the QAPP control limits.

The MS for batch WG635276 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank, analyzed on 09/12/13 for batch WG635275, was associated with all sediment samples in this SDG and was free from contamination.

The method blank, analyzed on 09/12/13 for batch WG635276, was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091013-01, was associated with all samples in this SDG and was contaminated with antimony (0.1590 µg/L), yielding an action level of 0.0262 mg/Kg. The antimony results for all samples were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-091013-01 was a field duplicate of sample SA71-SD-13-002-091013. The calculated RPD for antimony (40.0%) was above the QAPP control limit; since the parent sample result was less 5x the PQL, the absolute difference between the results was evaluated. The absolute difference was greater than the PQL and both results should be qualified J.

Qualification: **The antimony results for samples FD-091013-01 and SA71-SD-13-002-091013 were qualified J.**

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
SA71-SD-01-002-091013	Antimony	1.56	Q	1.56	--
SA71-SD-11-002-091013	Antimony	50.8	Q	50.8	--
SA71-SD-03-002-091013	Antimony	0.602	Q	0.602	--
SA71-SD-13-002-091013	Antimony	1.62	Q	1.62	J
FD-091013-01	Antimony	2.43	Q	2.43	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1317764
Laboratory: Alpha Analytical Laboratories	Date: 01/16/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
SA-71-SD-07-002-091113	L1317764-01	WG635275	Sediment
EB-091113-01	L1317764-02	WG635276	Water QC

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA analyzed for batch WG635275 contained target analyte antimony above the QAPP limit of detection; this QC element is outside the scope of Level II validation and was not evaluated. The non-standard Q-qualifier applied by the laboratory to the antimony result in sample SA-71-SD-07-002-091113 should be removed.

Qualification: **The non-standard Q-qualifier applied by the laboratory to the antimony result in sample SA-71-SD-07-002-091113 was removed.**

Sample Delivery and Condition – Both samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – Both samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA71-SD-13-002-091013 from SDG L1317704. The RPD met the QAPP control limit.

The duplicate analysis for batch WG635276 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG635275 met all %R control limits established in the QAPP.

The LCS for batch WG635276 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA71-SD-13-002-091013 from SDG L1317704. All %R and RPD results met the QAPP control limits.

The MS for batch WG635276 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/12/13 for batch WG635275 was associated with the sediment sample in this SDG and was free from contamination.

The method blank analyzed on 09/12/13 for batch WG635276 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091113-01, was associated with the sample in this SDG and was contaminated with antimony (0.1336 µg/L), yielding an action level of 0.0220 mg/Kg. The antimony result for sample SA-71-SD-07-002-091113 was a detection above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – A field duplicate was not associated with the sample in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
SA-71-SD-07-002-091113	Antimony	0.985	Q	0.985	--

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1317828
Laboratory: Alpha Analytical Laboratories	Date: 01/16/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-52-001-091113	L1317828-01	WG635581	Sediment
EB-091113-02	L1317828-02	WG635583	Water QC
FD-091113-01	L1317828-03	WG635581	Sediment

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration blank, and continuing calibration blank analyzed for batches WG635581 and WG635583 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-52-001-091113 and FD-091113-01 should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-52-001-091113 and FD-091113-01 were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-52-001-091113 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG635583 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG635581 met all %R control limits established in the QAPP.

The LCS for batch WG635583 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-52-001-091113 from this SDG. All %R and RPD results met the QAPP control limits.

The MS for batch WG635583 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/13/13 for batch WG635581 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/13/13 for batch WG635583 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091113-02, was associated with the samples in this SDG and was free from contamination.

Qualification: None required.

Field Duplicate – Sample FD-091113-01 was a field duplicate of sample RC-SD-52-001-091113. The calculated RPD for arsenic (35.5%) was above the QAPP control limit and both results should be qualified J.

Qualification: **The arsenic results for samples FD-091113-01 and RC-SD-52-001-091113 were qualified J.**

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-52-001-091113	Arsenic	39.5	Q	39.5	J
FD-091113-01	Arsenic	27.6	Q	27.6	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1317993
Laboratory: Alpha Analytical Laboratories	Date: 01/16/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-43-001-091113	L1317993-01	WG635915	Sediment

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration blank, and continuing calibration blank analyzed for batch WG635915 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifier applied by the laboratory to the arsenic result in sample RC-SD-43-001-091113 should be removed.

> ***Qualification:*** **The non-standard Q-qualifier applied by the laboratory to the arsenic result in sample RC-SD-43-001-091113 was removed.**

Sample Delivery and Condition – The sample arrived at the laboratory in acceptable condition and temperature and was properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – The sample was analyzed within the six-month holding time required by the QAPP for preserved solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-42-001-091213 from SDG L1317994. The RPD met the QAPP control limit.

> *Qualification:* None required.

Laboratory Control Sample – One LCS sample was associated with the sample in this SDG. The LCS for batch WG635915 met all %R control limits established in the QAPP.

> *Qualification:* None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-42-001-091213 from SDG L1317994. All %R and RPD results met the QAPP control limits.

> *Qualification:* None required.

Method Blank – One method blank was associated with the sample in this SDG. The method blank analyzed on 09/16/13 for batch WG635915 was contaminated with arsenic (0.012 mg/Kg), yielding an

action level of 0.060 mg/Kg. The arsenic result for the associated sample was a detection above the action level and no qualification was required.

Qualification: None required.

Field Blanks – A field blank was not associated with the sample in this SDG.

Qualification: None required.

Field Duplicate – A field duplicate was not associated with the sample in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-43-001-091113	Arsenic	25.3	Q	25.3	--

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1317994
Laboratory: Alpha Analytical Laboratories	Date: 01/16/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-51-001-091213	L1317994-01	WG635915	Sediment
RC-SD-42-001-091213	L1317994-02	WG635915	Sediment
EB-091213-01	L1317994-03	WG635916	Water QC
RC-SD-32-001-091213	L1317994-04	WG635915	Sediment
FD-091213-01	L1317994-05	WG635915	Sediment

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration blank, and continuing calibration blank analyzed for batches WG635915 and WG635916 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-51-001-091213, RC-SD-42-001-091213, RC-SD-32-001-091213, and FD-091213-01 were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-42-001-091213 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG635916 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG635915 met all %R control limits established in the QAPP.

The LCS for batch WG635916 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-42-001-091213 from this SDG. All %R and RPD results met the QAPP control limits.

The MS for batch WG635916 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/16/13 for batch WG635915 was associated with the sediment samples in this SDG and was contaminated with arsenic (0.012 mg/Kg), yielding an action level of 0.060 mg/Kg. The arsenic results for the associated samples were detections above the action level and no qualification was required.

The method blank analyzed on 09/16/13 for batch WG635916 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091213-01, was associated with the samples in this SDG and was contaminated with arsenic (0.1361 µg/L), yielding an action level of 0.0225 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-091213-01 was a field duplicate of sample RC-SD-42-001-091213. The calculated RPD for arsenic (5.8%) met the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-51-001-091213	Arsenic	183	Q	183	--
RC-SD-42-001-091213	Arsenic	229	Q	229	--
RC-SD-32-001-091213	Arsenic	35.6	Q	35.6	--
FD-091213-01	Arsenic	216	Q	216	--

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1318098
Laboratory: Alpha Analytical Laboratories	Date: 01/16/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-33-001-091313	L1318098-01	WG636412	Sediment
FD-091313-01	L1318098-02	WG636412	Sediment
EB-091313-01	L1318098-03	WG636416	Water QC

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration blank, and continuing calibration blank analyzed for batches WG636412 and WG636416 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

Qualification: **The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-33-001-091313 and FD-091313-01 were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-33-001-091313 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG636416 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG636412 met all %R control limits established in the QAPP.

The LCS for batch WG636416 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-33-001-091313 from this SDG. All %R and RPD results met the QAPP control limits.

The MS for batch WG635916 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/17/13 for batch WG636412 was associated with the sediment samples in this SDG and was contaminated with arsenic (0.012 mg/Kg), yielding an action level of 0.060 mg/Kg. The arsenic results for the associated samples were detections above the action level and no qualification was required.

The method blank analyzed on 09/17/13 for batch WG636416 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091313-01, was associated with the samples in this SDG and was free from contamination.

Qualification: None required.

Field Duplicate – Sample FD-091313-01 was a field duplicate of sample RC-SD-33-001-091313. The calculated RPD for arsenic (4.9%) met the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-33-001-091313	Arsenic	664	Q	664	--
FD-091313-01	Arsenic	632	Q	632	--

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1318326
Laboratory: Alpha Analytical Laboratories	Date: 01/16/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-50-001-091713	L1318326-01	WG637136	Sediment
RC-SD-55-001-091713	L1318326-02	WG637136	Sediment
FD-091713-01	L1318326-03	WG637136	Sediment
EB-091713-01	L1318326-04	WG637138	Water QC

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. One discrepancy was noted. The laboratory failed to discuss the RPD exceedance for the laboratory duplicate. In addition, it was stated in the narrative that the ICSA, initial calibration blank, and continuing calibration blank analyzed for batches WG637136 and WG637138 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01 were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-50-001-091713 from this SDG. The RPD was above the QAPP control limit at 35%. The arsenic results for samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01 were detections above the RL and should be qualified J.

The duplicate analysis for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

> ***Qualification:*** **The arsenic results for samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01 were qualified J.**

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG637136 met all %R control limits established in the QAPP.

The LCS for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-50-001-091713 from this SDG. The RPD result met the QAPP control limits, whereas the %R results were above the upper control limit (248% MS and 266% MSD). The arsenic results for samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01 were detections above the RL and should be qualified J.

MS/MSD analyses were also performed for target metal arsenic on sample RC-SD-41-001-091813 from SDG L1318417. The %R and RPD results were outside the QAPP control limits (0% MS, 185% MSD, and 25% RPD). The arsenic concentration for the parent sample was >4x the spiked amount, and therefore, the results were not applicable; no qualification was required.

The MS for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: **The arsenic results for samples RC-SD-50-001-091713, RC-SD-55-001-091713, and FD-091713-01 were qualified J.**

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/19/13 for batch WG637136 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/19/13 for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091713-01, was associated with the samples in this SDG and was contaminated with arsenic (0.1975 µg/L), yielding an action level of 0.0326 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-091713-01 was a field duplicate of sample RC-SD-50-001-091713. The calculated RPD for arsenic (6.3%) met the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-50-001-091713	Arsenic	510	Q	510	J
RC-SD-55-001-091713	Arsenic	29.2	Q	29.2	J

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
FD-091713-01	Arsenic	543	Q	543	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1318417
Laboratory: Alpha Analytical Laboratories	Date: 01/16/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-41-001-091813	L1318417-01	WG637136	Sediment
FD-091813-01	L1318417-02	WG637136	Sediment
EB-091813-01	L1318417-03	WG637138	Water QC

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. One discrepancy was noted. The laboratory failed to discuss the RPD exceedance for the laboratory duplicate. In addition, it was stated in the narrative that the ICSA, initial calibration blank, and continuing calibration blank analyzed for batches WG637136 and WG637138 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-41-001-091813 and FD-091813-01 were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-50-001-091713 from SDG L1318326. The RPD was above the QAPP control limit at 35%. Because the parent sample was not collected from the same location as the samples in this SDG, the result was not applicable and no qualification was required.

The duplicate analysis for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG637136 met all %R control limits established in the QAPP.

The LCS for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-41-001-091813 from this SDG. The %R and RPD results were outside the QAPP control limits (0% MS, 185% MSD, and 25% RPD). The arsenic concentration for the parent sample was >4x the spiked amount, and therefore, the results were not applicable; no qualification was required.

MS/MSD analyses were also performed for target metal arsenic on sample RC-SD-50-001-091713 from SDG L1318326. The RPD result met the QAPP control limits, whereas the %R results were above the upper control limit (248% MS and 266% MSD). Because the parent sample was not collected from the same location as the samples in this SDG, the results were not applicable and no qualification was required.

The MS for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/19/13 for batch WG637136 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/19/13 for batch WG637138 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091813-01, was associated with the samples in this SDG and was contaminated with arsenic (0.1371 µg/L), yielding an action level of 0.0226 mg/Kg. The arsenic results for both samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-091813-01 was a field duplicate of sample RC-SD-41-001-091813. The calculated RPD for arsenic (14.8%) met the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-41-001-091813	Arsenic	2910	Q	2910	--
FD-091813-01	Arsenic	2510	Q	2510	--

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1318526
Laboratory: Alpha Analytical Laboratories	Date: 01/16/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
SA-71-SD-11-003-091913	L1318526-01	WG637817	Sediment
FD-091913-02	L1318526-02	WG637817	Sediment
EB-091913-02	L1318526-03	WG637815	Water QC

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA and/or continuing calibration blanks analyzed for batches WG637815 and WG637817 contained target analyte antimony above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the antimony results for all samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the antimony results in samples SA-71-SD-11-003-091913 and FD-091913-02 were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA-71-SD-11-003-091913 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG637815 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG637817 met all %R control limits established in the QAPP.

The LCS for batch WG637815 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA-71-SD-11-003-091913 from this SDG. The RPD result met the QAPP control limits, whereas the %R results were below the lower control limit (55% MS and 38% MSD). The antimony results for samples SA-71-SD-11-003-091913 and FD-091913-02 were detections above the RL and should be qualified J.

The MS for batch WG637815 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: **The antimony results for samples FD-091913-02 and SA-71-SD-11-003-091913 were qualified J.**

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/23/13 for batch WG637817 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/23/13 for batch WG637815 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091913-02, was associated with the samples in this SDG and was free from contamination.

Qualification: None required.

Field Duplicate – Sample FD-091913-02 was a field duplicate of sample SA-71-SD-11-003-091913. The calculated RPD for antimony (25.4%) was above the QAPP control limit and both results should be qualified J.

Qualification: **The antimony results for samples FD-091913-02 and SA-71-SD-11-003-091913 were qualified J.**

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
SA-71-SD-11-003-091913	Antimony	5.81	Q	5.81	J
FD-091913-02	Antimony	4.50	Q	4.50	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1318528
Laboratory: Alpha Analytical Laboratories	Date: 01/16/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-40-001-091913	L1318528-01	WG637823	Sediment
FD-091913-01	L1318528-02	WG637823	Sediment
EB-091913-01	L1318528-03	WG637815	Water QC

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA and continuing calibration blanks analyzed for batches WG637815 and WG637823 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-40-001-091913 and FD-091913-01 were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-40-001-091913 from this SDG. The RPD met the QAPP control limit.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG637823 met all %R control limits established in the QAPP.

The LCS for batch WG637815 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-40-001-091913 from this SDG. All %R and RPD results met the QAPP control limits.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/23/13 for batch WG637823 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/23/13 for batch WG637815 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-091913-01, was associated with the samples in this SDG and was contaminated with arsenic (0.1277 µg/L), yielding an action level of 0.0211 mg/Kg. The arsenic results for both samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-091913-01 was a field duplicate of sample RC-SD-40-001-091913. The calculated RPD for arsenic (25.1%) was above the QAPP control limit and both results should be qualified J.

Qualification: **The arsenic results for samples FD-091913-01 and RC-SD-40-001-091913 were qualified J.**

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-40-001-091913	Arsenic	2090	Q	2090	J
FD-091913-01	Arsenic	2690	Q	2690	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1318731
Laboratory: Alpha Analytical Laboratories	Date: 01/16/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-49-001-092013	L1318731-01	WG638351	Sediment
EB-092013-01	L1318731-02	WG638352	Water QC
RC-SD-53-001-092013	L1318731-03	WG638351	Sediment

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration and/or continuing calibration blanks analyzed for batches WG638351 and WG638352 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-49-001-092013 and RC-SD-53-001-092013 were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-49-001-092013 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG638351 met all %R control limits established in the QAPP.

The LCS for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-49-001-092013 from this SDG. The %R and RPD results met the QAPP control limits with the exception of one high recovery (141% MSD). The arsenic results for samples RC-SD-49-001-092013 and RC-SD-53-001-092013 were detections above the PQL and should be qualified J.

The MS for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: **The arsenic results for samples RC-SD-49-001-092013 and RC-SD-53-001-092013 were qualified J.**

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/24/13 for batch WG638351 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/24/13 for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-092013-01, was associated with the samples in this SDG and was free from contamination.

Qualification: None required.

Field Duplicate – No field duplicate was associated with the samples in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-49-001-092013	Arsenic	274	Q	274	J
RC-SD-53-001-092013	Arsenic	6.81	Q	6.81	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1318780
Laboratory: Alpha Analytical Laboratories	Date: 01/16/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/08/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-54-001-092313	L1318780-01	WG638351	Sediment
EB-092313-01	L1318780-02	WG638352	Water QC

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration and/or continuing calibration blanks analyzed for batches WG638351 and WG638352 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifier applied by the laboratory to the arsenic result for sample RC-SD-54-001-092313 should be removed.

> ***Qualification:*** **The non-standard Q-qualifier applied by the laboratory to the arsenic result in sample RC-SD-54-001-092313 was removed.**

Sample Delivery and Condition – Both samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – Both samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-49-001-092013 from SDG L1318731. The RPD met the QAPP control limit.

The duplicate analysis for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG638351 met all %R control limits established in the QAPP.

The LCS for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-49-001-092013 from SDG L1318731. The %R and RPD results met the QAPP control

limits with the exception of one high recovery (141% MSD). The arsenic result for sample RC-SD-54-001-092313 was a detection above the PQL and should be qualified J.

The MS for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: **The arsenic result for sample RC-SD-54-001-092313 was qualified J.**

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/24/13 for batch WG638351 was associated with the sediment sample in this SDG and was free from contamination.

The method blank analyzed on 09/24/13 for batch WG638352 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-092313-01, was associated with the sample in this SDG and was free from contamination.

Qualification: None required.

Field Duplicate – No field duplicate was associated with the sample in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-54-001-092313	Arsenic	31.7	Q	31.7	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1318875
Laboratory: Alpha Analytical Laboratories	Date: 01/18/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/09/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-60-001-092413	L1318875-01	WG638976	Sediment
RC-SD-58-001-092413	L1318875-02	WG638976	Sediment
RC-SD-57-001-092413	L1318875-03	WG638976	Sediment
RC-SD-56-001-092413	L1318875-04	WG638976	Sediment
RC-SD-59-001-092413	L1318875-05	WG638976	Sediment
EB-092413-01	L1318875-06	WG638977	Water QC

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration and continuing calibration blanks analyzed for batches WG638976 and WG638977 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

Qualification: **The non-standard Q-qualifiers applied by the laboratory to the arsenic results in all sediment samples were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-60-001-092413 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG638977 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG638976 met all %R control limits established in the QAPP.

The LCS for batch WG638977 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-60-001-092413 from this SDG. All %R and RPD results met the QAPP control limits.

The MS for batch WG638977 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/26/13 for batch WG638976 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/26/13 for batch WG638977 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-092413-01, was associated with the samples in this SDG and was free from contamination.

Qualification: None required.

Field Duplicate – No field duplicate was associated with the samples in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-60-001-092413	Arsenic	12.5	Q	12.5	--
RC-SD-58-001-092413	Arsenic	32.9	Q	32.9	--
RC-SD-57-001-092413	Arsenic	22.4	Q	22.4	--
RC-SD-56-001-092413	Arsenic	5.56	Q	5.56	--
RC-SD-59-001-092413	Arsenic	7.39	Q	7.39	--

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1319010
Laboratory: Alpha Analytical Laboratories	Date: 01/18/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/09/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-44-001-092513	L1319010-01	WG639326	Sediment
RC-SD-35-001-092513	L1319010-02	WG639326	Sediment
RC-SD-34-001-092513	L1319010-03	WG639326	Sediment
FD-092513-01	L1319010-04	WG639326	Sediment
EB-092513-01	L1319010-05	WG639329	Water QC
RC-SD-25-001-092513	L1319010-06	WG639326	Sediment

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration and/or continuing calibration blanks analyzed for batches WG639326 and WG639329 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the arsenic results in all sediment samples were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-34-001-092513 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG639329 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG639326 met all %R control limits established in the QAPP.

The LCS for batch WG639329 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-34-001-092513 from this SDG. All %R and RPD results met the QAPP control limits.

The MS for batch WG639329 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 09/27/13 for batch WG639326 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 09/27/13 for batch WG639329 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-092513-01, was associated with the samples in this SDG and was contaminated with arsenic (0.1279 µg/L), yielding an action level of 0.0211 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-092513-01 was a field duplicate of sample RC-SD-34-001-092513. The calculated RPD for arsenic (2.8%) met the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-44-001-092513	Arsenic	197	Q	197	--
RC-SD-35-001-092513	Arsenic	251	Q	251	--
RC-SD-34-001-092513	Arsenic	506	Q	506	--
FD-092513-01	Arsenic	492	Q	492	--
RC-SD-25-001-092513	Arsenic	130	Q	130	--

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1319573
Laboratory: Alpha Analytical Laboratories	Date: 01/21/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/10/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-36-001-100213	L1319573-01	WG640718	Sediment
RC-SD-37-001-100213	L1319573-02	WG640718	Sediment
RC-SD-38-001-100213	L1319573-03	WG640718	Sediment
RC-SD-39-001-100213	L1319573-04	WG640718	Sediment
RC-SD-45-001-100213	L1319573-05	WG640718	Sediment
RC-SD-46-001-100213	L1319573-06	WG640718	Sediment
RC-SD-47-001-100213	L1319573-07	WG640718	Sediment
FD-100213-01	L1319573-08	WG640718	Sediment
EB-100213-01	L1319573-09	WG640759	Water QC

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration and continuing calibration blanks analyzed for batches WG640718 and WG640759 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the arsenic results in all sediment samples were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-WC-100113-01 from SDG L1319527. The RPD met the QAPP control limit.

The duplicate analysis for batch WG640759 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG640718 met all %R control limits established in the QAPP.

The LCS for batch WG640759 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-46-001-100213 from this SDG. All %R and RPD results met the QAPP control limits.

MS/MSD analyses were also performed for target metal arsenic on sample RC-WC-100113-01 from SDG L1319527. All %R and RPD results met the QAPP control limits.

The MS for batch WG640759 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 10/03/13 for batch WG640718 was associated with the sediment samples in this SDG and was contaminated with arsenic (0.012 mg/Kg), yielding an action level of 0.060 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

The method blank analyzed on 10/03/13 for batch WG640759 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-100213-01, was associated with the samples in this SDG and was contaminated with arsenic (0.2095 µg/L), yielding an action level of 0.0346 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-100213-01 was a field duplicate of sample RC-SD-46-001-100213. The calculated RPD for arsenic (4.4%) met the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-36-001-100213	Arsenic	195	Q	195	--
RC-SD-37-001-100213	Arsenic	291	Q	291	--
RC-SD-38-001-100213	Arsenic	93.9	Q	93.9	--

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-39-001-100213	Arsenic	110	Q	110	--
RC-SD-45-001-100213	Arsenic	23.7	Q	23.7	--
RC-SD-46-001-100213	Arsenic	156	Q	156	--
RC-SD-47-001-100213	Arsenic	127	Q	127	--
FD-100213-01	Arsenic	163	Q	163	--

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1319660
Laboratory: Alpha Analytical Laboratories	Date: 01/21/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/10/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-23-001-100213	L1319660-01	WG641081	Sediment
RC-SD-24-001-100213	L1319660-02	WG641081	Sediment
RC-SD-29-001-100213	L1319660-03	WG641081	Sediment
RC-SD-30-001-100213	L1319660-04	WG641081	Sediment
RC-SD-31-001-100213	L1319660-05	WG641081	Sediment
RC-22-001-100213	L1319660-06	WG641081	Sediment

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration and continuing calibration blanks analyzed for batch WG641081 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the arsenic results in all samples were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-23-001-100213 from this SDG. The RPD met the QAPP control limit.

> *Qualification:* None required.

Laboratory Control Sample – One LCS sample was associated with all samples in this SDG. The LCS for batch WG641081 met all %R control limits established in the QAPP.

> *Qualification:* None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-23-001-100213 from this SDG. All %R and RPD results met the QAPP control limits.

Qualification: None required.

Method Blank – One method blank was associated with all samples in this SDG. The method blank analyzed on 10/04/13 for batch WG641081 was free from contamination.

Qualification: None required.

Field Blanks – An equipment blank was not submitted with the samples in this SDG.

Qualification: None required.

Field Duplicate – A field duplicate was not submitted with the samples in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-23-001-100213	Arsenic	120	Q	120	--
RC-SD-24-001-100213	Arsenic	73.8	Q	73.8	--
RC-SD-29-001-100213	Arsenic	157	Q	157	--
RC-SD-30-001-100213	Arsenic	133	Q	133	--
RC-SD-31-001-100213	Arsenic	95.2	Q	95.2	--
RC-22-001-100213	Arsenic	157	Q	157	--

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1319709
Laboratory: Alpha Analytical Laboratories	Date: 01/23/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/11/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-19-001-100313	L1319709-01	WG641081	Sediment
RC-SD-20-001-100313	L1319709-02	WG641081	Sediment
RC-SD-21-001-100313	L1319709-03	WG641081	Sediment
RC-SD-26-001-100313	L1319709-04	WG641081	Sediment
RC-SD-27-001-100313	L1319709-05	WG641081	Sediment
RC-SD-28-001-100313	L1319709-06	WG641081	Sediment
FD-100313-001	L1319709-07	WG641081	Sediment
EB-100313-01	L1319709-08	WG641108	Water QC

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration and continuing calibration blanks analyzed for batches WG641081 and WG641108 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the arsenic results in all sediment samples were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-23-001-100213 from SDG L1319660. The RPD met the QAPP control limit.

The duplicate analysis for batch WG641108 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG641081 met all %R control limits established in the QAPP.

The LCS for batch WG641108 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-28-001-100313 from this SDG. All %R and RPD results met the QAPP control limits.

MS/MSD analyses were also performed for target metal arsenic on sample RC-SD-23-001-100213 from SDG L1319660. All %R and RPD results met the QAPP control limits.

The MS for batch WG641108 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 10/04/13 for batch WG641081 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 10/04/13 for batch WG641108 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-100313-01, was associated with the samples in this SDG and was contaminated with arsenic (0.1211 µg/L), yielding an action level of 0.0200 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-100313-001 was a field duplicate of sample RC-SD-28-001-100313. The calculated RPD for arsenic (45.9%) was above the QAPP control limit and both results should be qualified J.

Qualification: **The arsenic results for samples FD-100313-001 and RC-SD-28-001-100313 were qualified J.**

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-19-001-100313	Arsenic	117	Q	117	--
RC-SD-20-001-100313	Arsenic	185	Q	185	--
RC-SD-21-001-100313	Arsenic	185	Q	185	--
RC-SD-26-001-100313	Arsenic	164	Q	164	--
RC-SD-27-001-100313	Arsenic	657	Q	657	--

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-28-001-100313	Arsenic	104	Q	104	J
FD-100313-001	Arsenic	166	Q	166	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1319783
Laboratory: Alpha Analytical Laboratories	Date: 01/23/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/11/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-13-001-100313	L1319783-01	WG641401	Sediment
RC-SD-18-001-100313	L1319783-02	WG641401	Sediment
RC-SD-10-001-100313	L1319783-03	WG641401	Sediment
RC-SD-14-001-100313	L1319783-04	WG641401	Sediment
RC-SD-15-001-100313	L1319783-05	WG641401	Sediment
RC-SD-16-001-100313	L1319783-06	WG641401	Sediment

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration and continuing calibration blanks analyzed for batch WG641401 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the arsenic results in all samples were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-13-001-100313 from this SDG. The RPD met the QAPP control limit.

> *Qualification:* None required.

Laboratory Control Sample – One LCS sample was associated with all samples in this SDG. The LCS for batch WG641401 met all %R control limits established in the QAPP.

> *Qualification:* None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-13-001-100313 from this SDG. All %R and RPD results met the QAPP control limits.

Qualification: None required.

Method Blank – One method blank was associated with all samples in this SDG. The method blank analyzed on 10/07/13 for batch WG641401 was contaminated with arsenic (0.023 mg/Kg), yielding an action level of 0.115 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Blanks – An equipment blank was not submitted with the samples in this SDG.

Qualification: None required.

Field Duplicate – A field duplicate was not submitted with the samples in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-13-001-100313	Arsenic	221	Q	221	--
RC-SD-18-001-100313	Arsenic	291	Q	291	--
RC-SD-10-001-100313	Arsenic	449	Q	449	--
RC-SD-14-001-100313	Arsenic	244	Q	244	--
RC-SD-15-001-100313	Arsenic	101	Q	101	--
RC-SD-16-001-100313	Arsenic	232	Q	232	--

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1319814
Laboratory: Alpha Analytical Laboratories	Date: 01/23/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/11/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-06-001-100413 (1)	L1319814-01	WG641401	Sediment
RC-SD-07-001-100413 (1)	L1319814-02	WG641401	Sediment
RC-SD-08-001-100413 (1)	L1319814-03	WG641401	Sediment
RC-SD-11-001-100413 (1)	L1319814-04	WG641401	Sediment
RC-SD-12-001-100413 (1)	L1319814-05	WG641401	Sediment
RC-SD-17-001-100413 (1)	L1319814-06	WG641401	Sediment
EB-100413-001 (2)	L1319814-07	WG641398; WG641399	Water QC
SA71-SD-23-001-100413 (3)	L1319814-08	WG641402	Sediment
SA71-SD-22-001-100413 (3)	L1319814-09	WG641402	Sediment

(1) Sample analyzed for total arsenic only.
(2) Sample analyzed for total arsenic and antimony only.
(3) Sample analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration and continuing calibration blanks analyzed for batches WG641401 and WG641398 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples in batch WG641401 should be removed.

Qualification: **The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples in batch WG641401 were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-13-001-100313 from SDG L1319783. The RPD met the QAPP control limit.

One lab duplicate analysis was also performed for antimony on sample SA71-SD-23-001-100413 from this SDG. The RPD was above the QAPP upper control limit at 101%. The antimony results for samples

SA71-SD-23-001-100413 and SA71-SD-22-001-100413 were detections above the PQL and should be qualified J.

The duplicate analyses for batches WG641398 and WG641399 were associated with a sample meant for QC purposes only and were not evaluated.

Qualification: **The antimony results for samples SA71-SD-23-001-100413 and SA71-SD-22-001-100413 were qualified J.**

Laboratory Control Sample – Four LCS samples were associated with the samples in this SDG. The LCSs for batches WG641401 and WG641402 met all %R control limits established in the QAPP.

The LCSs for batches WG641398 and WG641399 were associated with a sample meant for QC purposes only and were not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-13-001-100313 from SDG L1319783. All %R and RPD results met the QAPP control limits.

MS/MSD analyses were performed for target metal antimony on sample SA71-SD-23-001-100413 from this SDG. One %R result met the QAPP control limits, whereas the RPD and remaining %R result were outside the control limits (34% MSD and 21% RPD). The antimony results for samples SA71-SD-23-001-100413 and SA71-SD-22-001-100413 were detections above the PQL and should be qualified J.

The MSs for batches WG641398 and WG641399 were associated with a sample meant for QC purposes only and were not evaluated.

Qualification: **The antimony results for samples SA71-SD-23-001-100413 and SA71-SD-22-001-100413 were qualified J.**

Method Blank – Four method blanks were associated with the samples in this SDG. The method blank analyzed on 10/07/13 for batch WG641401 was contaminated with arsenic (0.023 mg/Kg), yielding an action level of 0.115 mg/Kg. All arsenic results for the samples in this SDG were detections above the action level and no qualification was required.

The method blank analyzed on 10/07/13 for batch WG641402 was free from contamination.

The method blanks analyzed on 10/07/13 for batches WG641398 and WG641399 were associated with a sample meant for QC purposes only and were not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-100413-001, was associated with the samples in this SDG and was contaminated with antimony (0.1185 µg/L) and arsenic (0.1907 µg/L), yielding action levels of 0.0196 mg/Kg and 0.0315 mg/Kg, respectively. The antimony and arsenic results for all samples in this SDG were detections above the corresponding action level and no qualification was required.

Qualification: None required.

Field Duplicate – A field duplicate was not submitted with the samples in this SDG.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-06-001-100413	Arsenic	399	Q	399	--
RC-SD-07-001-100413	Arsenic	128	Q	128	--
RC-SD-08-001-100413	Arsenic	98.0	Q	98.0	--
RC-SD-11-001-100413	Arsenic	65.2	Q	65.2	--
RC-SD-12-001-100413	Arsenic	78.3	Q	78.3	--
RC-SD-17-001-100413	Arsenic	113	Q	113	--
SA71-SD-23-001-100413	Antimony	2.64	Q	2.64	J
SA71-SD-22-001-100413	Antimony	5.98	Q	5.98	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1319995
Laboratory: Alpha Analytical Laboratories	Date: 01/24/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/12/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-01-001-100713	L1319995-01	WG641886	Sediment
RC-SD-02-001-100713	L1319995-02	WG641886	Sediment
RC-SD-03-001-100713	L1319995-03	WG641886	Sediment
RC-SD-04-001-100713	L1319995-04	WG641886	Sediment
RC-SD-05-001-100713	L1319995-05	WG641886	Sediment
FD-100713-01	L1319995-06	WG641886	Sediment
EB-100713-01	L1319995-07	WG641884	Water QC
RC-SD-09-001-100713	L1319995-08	WG641886	Sediment
RC-SD-40-002-100713	L1319995-09	WG641886	Sediment

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration and continuing calibration blanks analyzed for batches WG641884 and WG641886 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the arsenic results in all sediment samples were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-01-001-100713 from this SDG. The RPD met the QAPP control limit.

The duplicate analysis for batch WG641884 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG641886 met all %R control limits established in the QAPP.

The LCS for batch WG641884 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-01-001-100713 from this SDG. All %R and RPD results met the QAPP control limits.

The MS for batch WG641884 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 10/08/13 for batch WG641886 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 10/08/13 for batch WG641884 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-100713-01, was associated with all samples in this SDG and was contaminated with arsenic (0.0909 µg/L), yielding an action level of 0.0150 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-100713-01 was a field duplicate of sample RC-SD-01-001-100713. The calculated RPD for arsenic (6.5%) was below the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-01-001-100713	Arsenic	174	Q	174	--
RC-SD-02-001-100713	Arsenic	177	Q	177	--
RC-SD-03-001-100713	Arsenic	302	Q	302	--
RC-SD-04-001-100713	Arsenic	163	Q	163	--
RC-SD-05-001-100713	Arsenic	86.4	Q	86.4	--
FD-100713-01	Arsenic	163	Q	163	--
RC-SD-09-001-100713	Arsenic	89.2	Q	89.2	--

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-40-002-100713	Arsenic	58.6	Q	58.6	--

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1320115
Laboratory: Alpha Analytical Laboratories	Date: 01/24/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/12/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
RC-SD-41-002-100813	L1320115-01	WG642616	Sediment
RC-SD-48-001-100813	L1320115-02	WG642616	Sediment
FD-100813-01	L1320115-03	WG642616	Sediment
EB-100813-01	L1320115-04	WG642366	Water QC

* Samples analyzed for total arsenic only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted. However, it was stated in the narrative that the ICSA, initial calibration and continuing calibration blanks analyzed for batch WG642616 contained target analyte arsenic above the QAPP limit of detection; these QC elements are outside the scope of Level II validation and were not evaluated. The non-standard Q-qualifiers applied by the laboratory to the arsenic results for all associated samples should be removed.

> ***Qualification:*** **The non-standard Q-qualifiers applied by the laboratory to the arsenic results in samples RC-SD-41-002-100813, RC-SD-48-001-100813, and FD-100813-01 were removed.**

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

> *Qualification:* None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

> *Qualification:* None required.

Laboratory Duplicate – One lab duplicate analysis was performed for arsenic on sample RC-SD-41-002-100813 from this SDG. The RPD met the QAPP control limit.

> *Qualification:* None required.

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG642616 met all %R control limits established in the QAPP.

The LCS for batch WG642366 was associated with a sample meant for QC purposes only and was not evaluated.

> *Qualification:* None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal arsenic on sample RC-SD-41-002-100813 from this SDG. All %R and RPD results met the QAPP control limits.

The MS/MSD for batch WG642366 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 10/10/13 for batch WG642616 was associated with the sediment samples in this SDG and was contaminated with arsenic (0.015 mg/Kg), yielding an action level of 0.075 mg/Kg. All arsenic results for the samples in this SDG were detections above the action level and no qualification was required.

The method blank analyzed on 10/09/13 for batch WG642366 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-100813-01, was associated with all samples in this SDG and was contaminated with arsenic (0.3270 µg/L), yielding an action level of 0.0540 mg/Kg. The arsenic results for all samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-100813-01 was a field duplicate of sample RC-SD-48-001-100813. The calculated RPD for arsenic (11.9%) was below the QAPP control limit.

Qualification: None required.

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
RC-SD-41-002-100813	Arsenic	228	Q	228	--
RC-SD-48-001-100813	Arsenic	15.0	Q	15.0	--
FD-100813-01	Arsenic	16.9	Q	16.9	--

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1320192
Laboratory: Alpha Analytical Laboratories	Date: 01/24/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/12/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
SA-71-SD-24-001-100913	L1320192-01	WG642617	Sediment
SA-71-SD-23-002-100913	L1320192-02	WG642617	Sediment
SA-71-SD-22-002-100913	L1320192-03	WG642617	Sediment
SA-71-SD-21-001-100913	L1320192-04	WG642617	Sediment
SA-71-SD-20-001-100913	L1320192-05	WG642617	Sediment
SA-71-SD-19-001-100913	L1320192-06	WG642617	Sediment
FD-100913-01	L1320192-07	WG642617	Sediment
EB-100913-01	L1320192-08	WG642615	Water QC

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted.

Qualification: None required.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and were properly preserved. However, the cooler was received at a temperature above the 6° F threshold required by the QAPP. Because the cooler was delivered by the field sampling team directly to the laboratory, it is possible that it did not have adequate time to reach the appropriate temperature while in transit. The analyte of interest is stable above the temperature threshold, and therefore, in the opinion of the reviewer, no qualification was necessary. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA-71-SD-24-001-100913 from this SDG. The RPD was above the QAPP control limit at 36%. The antimony results for all sediment samples were detections above the PQL and should be qualified J.

The duplicate analysis for batch WG642615 was associated with a sample meant for QC purposes only and was not evaluated.

***Qualification:* The antimony results for all sediment samples were qualified J.**

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG642617 met all %R control limits established in the QAPP.

The LCS for batch WG642615 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA-71-SD-24-001-100913 from this SDG. The RPD result met the QAPP control limits, whereas the %R results were below the lower control limit (32% MS and 44% MSD). The antimony results for all sediment samples were detections above the PQL and should be qualified J.

The MS for batch WG642615 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: **The antimony results for all sediment samples were qualified J.**

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 10/10/13 for batch WG642617 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 10/10/13 for batch WG642615 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-100913-01, was associated with all samples in this SDG and was free from contamination.

Qualification: None required.

Field Duplicate – Sample FD-100913-01 was a field duplicate of sample SA-71-SD-24-001-100913. The calculated RPD for antimony (34.5%) was above the QAPP control limit; the antimony results for samples FD-100913-01 and SA-71-SD-24-001-100913 were detections greater than 5x the PQL and should be qualified J.

Qualification: **The antimony results for samples FD-100913-01 and SA-71-SD-24-001-100913 were qualified J.**

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
SA-71-SD-24-001-100913	Antimony	1.70	--	1.70	J
SA-71-SD-23-002-100913	Antimony	3.41	--	3.41	J
SA-71-SD-22-002-100913	Antimony	6.04	--	6.04	J
SA-71-SD-21-001-100913	Antimony	7.88	--	7.88	J
SA-71-SD-20-001-100913	Antimony	46.3	--	46.3	J
SA-71-SD-19-001-100913	Antimony	6.22	--	6.22	J
FD-100913-01	Antimony	1.20	--	1.20	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Total Metals
SW-846 Method 6020A
USEPA Level II Review

Site: Railroad Round/Plow Shop Pond	SDG #: L1320452
Laboratory: Alpha Analytical Laboratories	Date: 01/24/2014
HydroGeoLogic, Inc. Reviewer: Vanessa Redfield HGL Peer Reviewer: Denise Rivers (02/12/14)	Project: SO1006

Client Sample ID*	Laboratory Sample ID	Analysis Batch	Matrix
SA71-SD-20-002-101113	L1320452-01	WG643632	Sediment
FD-101113-01	L1320452-02	WG643632	Sediment
EB-101113-01	L1320452-03	WG643633	Water QC

* Samples analyzed for total antimony only.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted.

Qualification: None required.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were analyzed within the six-month holding time required by the QAPP for preserved aqueous and solid samples.

Qualification: None required.

Laboratory Duplicate – One lab duplicate analysis was performed for antimony on sample SA71-SD-20-002-101113 from this SDG. The RPD was above the QAPP control limit at 22%. The antimony results for both sediment samples were detections above the PQL and should be qualified J.

The duplicate analysis for batch WG643633 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: **The antimony results for samples SA71-SD-20-002-101113 and FD-101113-01 were qualified J.**

Laboratory Control Sample – Two LCS samples were associated with the samples in this SDG. The LCS for batch WG643632 met all %R control limits established in the QAPP.

The LCS for batch WG643633 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

MS/MSD – Matrix spike/matrix spike duplicate analyses were performed for target metal antimony on sample SA71-SD-20-002-101113 from this SDG. The RPD result met the QAPP control limits, whereas the %R results were above the upper control limit (542% MS and 415% MSD). The antimony

concentration for the parent sample was >4x the spiked amount, and therefore, the results were not applicable; no qualification was required.

The MS for batch WG643633 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blank analyzed on 10/15/13 for batch WG643632 was associated with the sediment samples in this SDG and was free from contamination.

The method blank analyzed on 10/15/13 for batch WG643633 was associated with a sample meant for QC purposes only and was not evaluated.

Qualification: None required.

Field Blanks – One equipment blank, identified as EB-101113-01, was associated with all samples in this SDG and was contaminated with antimony (0.1244 µg/L), yielding an action level of 0.0205 mg/Kg. The antimony results for both samples in this SDG were detections above the action level and no qualification was required.

Qualification: None required.

Field Duplicate – Sample FD-101113-01 was a field duplicate of sample SA71-SD-20-002-101113. The calculated RPD for antimony (70.2%) was above the QAPP control limit; the antimony results for samples FD-101113-01 and SA71-SD-20-002-101113 were detections greater than 5x the PQL and should be qualified J.

***Qualification:* The antimony results for samples FD-101113-01 and SA71-SD-20-002-101113 were qualified J.**

Compound Quantitation – Analyte non-detections are reported as "ND"; these results should be considered the equivalent of "PQL U." Analyte detections below the PQL are reported as J-qualified results. These J-qualifiers are retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (all concentrations in mg/Kg):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
SA71-SD-20-002-101113	Antimony	11.0	--	11.0	J
FD-101113-01	Antimony	22.9	--	22.9	J

Only environmental samples and field duplicates were included in the above table. MS/MSDs and field blanks were used to evaluate the sample data but were not qualified during the review process.

Soil and Sediment Analytical Results
Devens Railroad Roundhouse (SA71)
July - December 2013

Sample Identification	Units	SW6020A	
		Antimony	Qual
SA71-SD-09-001-082613	mg/Kg	2.36	J
FD-082613	mg/Kg	2.39	J
SA71-SD-18-001-082613	mg/Kg	0.702	J
SA71-SD-08-001-082613	mg/Kg	2.81	J
SA-71-SD-07-001-082813	mg/Kg	6.05	J
SA-71-SD-06-001-082813	mg/Kg	6.37	J
SA-71-SD-05-001-082813	mg/Kg	5.59	J
SA-71-SD-04-001-082813	mg/Kg	5.95	J
SA-71-SD-15-001-082813	mg/Kg	8.28	J
SA-71-SD-14-001-082813	mg/Kg	6.66	J
SA-71-SD-13-001-082813	mg/Kg	10.4	J
SA-71-SD-03-001-082813	mg/Kg	5.98	J
SA-71-SD-12-001-082813	mg/Kg	3.23	J
SA-71-SD-02-001-082813	mg/Kg	4.53	J
FD-082813-01	mg/Kg	8.25	J
SA-71-SD-01-001-082913	mg/Kg	6.16	J
SA-71-SD-11-001-083013	mg/Kg	10.1	J
SA-71-SD-10-001-083013	mg/Kg	2.89	J
SA-71-SD-17-001-083013	mg/Kg	1.18	J
SA-71-SD-16-001-083013	mg/Kg	2.04	J
FD-083013-01	mg/Kg	3.14	J
SA-71-SD-05-002-090613	mg/Kg	6.93	J
SA-71-SD-04-002-090613	mg/Kg	7.81	J
SA-71-SD-06-002-090613	mg/Kg	3.08	J
FD-090613-01	mg/Kg	6.10	J
SA-71-SD-15-002-090613	mg/Kg	2.89	J
SA-71-SD-14-002-090613	mg/Kg	7.52	J
SA71-SD-01-002-091013	mg/Kg	1.56	
SA71-SD-11-002-091013	mg/Kg	50.8	
SA71-SD-03-002-091013	mg/Kg	0.602	
SA71-SD-13-002-091013	mg/Kg	1.62	J
FD-091013-01	mg/Kg	2.43	J
SA-71-SD-07-002-091113	mg/Kg	0.985	
RC-SD-52-001-091113	mg/Kg	39.5	J
FD-091113-01	mg/Kg	27.6	J
SA-71-SD-11-003-091913	mg/Kg	5.81	J
FD-091913-02	mg/Kg	4.50	J
SA71-SD-23-001-100413	mg/Kg	2.64	J
SA71-SD-22-001-100413	mg/Kg	5.98	J
SA-71-SD-24-001-100913	mg/Kg	1.70	J
SA-71-SD-23-002-100913	mg/Kg	3.41	J
SA-71-SD-22-002-100913	mg/Kg	6.04	J
SA-71-SD-21-001-100913	mg/Kg	7.88	J
SA-71-SD-20-001-100913	mg/Kg	46.3	J
SA-71-SD-19-001-100913	mg/Kg	6.22	J
FD-100913-01	mg/Kg	1.20	J
SA71-SD-20-002-101113	mg/Kg	11.0	J
FD-101113-01	mg/Kg	22.9	J

Notes:

mg/Kg = milligrams per kilogram

MCP GW-1 Standard: 6

MCP GW-3 Standard: 80,000

Soil and Sediment Analytical Results
Devens Plow Shop Pond (Red Cove)
July - December 2013

Sample Identification	Units	SW6020A	
		Arsenic	Qual
RC-SD-43-001-091113	mg/Kg	25.3	
RC-SD-51-001-091213	mg/Kg	183	
RC-SD-42-001-091213	mg/Kg	229	
RC-SD-32-001-091213	mg/Kg	35.6	
FD-091213-01	mg/Kg	216	
RC-SD-33-001-091313	mg/Kg	664	
FD-091313-01	mg/Kg	632	
RC-SD-50-001-091713	mg/Kg	510	J
RC-SD-55-001-091713	mg/Kg	29.2	J
FD-091713-01	mg/Kg	543	J
RC-SD-41-001-091813	mg/Kg	2910	
FD-091813-01	mg/Kg	2510	
RC-SD-40-001-091913	mg/Kg	2090	J
FD-091913-01	mg/Kg	2690	J
RC-SD-49-001-092013	mg/Kg	274	J
RC-SD-53-001-092013	mg/Kg	6.81	J
RC-SD-54-001-092313	mg/Kg	31.7	J
RC-SD-60-001-092413	mg/Kg	12.5	
RC-SD-58-001-092413	mg/Kg	32.9	
RC-SD-57-001-092413	mg/Kg	22.4	
RC-SD-56-001-092413	mg/Kg	5.56	
RC-SD-59-001-092413	mg/Kg	7.39	
RC-SD-44-001-092513	mg/Kg	197	
RC-SD-35-001-092513	mg/Kg	251	
RC-SD-34-001-092513	mg/Kg	506	
FD-092513-01	mg/Kg	492	
RC-SD-25-001-092513	mg/Kg	130	
RC-SD-36-001-100213	mg/Kg	195	
RC-SD-37-001-100213	mg/Kg	291	
RC-SD-38-001-100213	mg/Kg	93.9	
RC-SD-39-001-100213	mg/Kg	110	
RC-SD-45-001-100213	mg/Kg	23.7	
RC-SD-46-001-100213	mg/Kg	156	
RC-SD-47-001-100213	mg/Kg	127	
FD-100213-01	mg/Kg	163	
RC-SD-23-001-100213	mg/Kg	120	
RC-SD-24-001-100213	mg/Kg	73.8	
RC-SD-29-001-100213	mg/Kg	157	
RC-SD-30-001-100213	mg/Kg	133	
RC-SD-31-001-100213	mg/Kg	95.2	
RC-22-001-100213	mg/Kg	157	
RC-SD-19-001-100313	mg/Kg	117	
RC-SD-20-001-100313	mg/Kg	185	
RC-SD-21-001-100313	mg/Kg	185	
RC-SD-26-001-100313	mg/Kg	164	

Soil and Sediment Analytical Results
Devens Plow Shop Pond (Red Cove)
July - December 2013

Sample Identification	Units	SW6020A	
		Arsenic	Qual
RC-SD-27-001-100313	mg/Kg	657	
RC-SD-28-001-100313	mg/Kg	104	J
FD-100313-001	mg/Kg	166	J
RC-SD-13-001-100313	mg/Kg	221	
RC-SD-18-001-100313	mg/Kg	291	
RC-SD-10-001-100313	mg/Kg	449	
RC-SD-14-001-100313	mg/Kg	244	
RC-SD-15-001-100313	mg/Kg	101	
RC-SD-16-001-100313	mg/Kg	232	
RC-SD-06-001-100413	mg/Kg	399	
RC-SD-07-001-100413	mg/Kg	128	
RC-SD-08-001-100413	mg/Kg	98	
RC-SD-11-001-100413	mg/Kg	65.2	
RC-SD-12-001-100413	mg/Kg	78.3	
RC-SD-17-001-100413	mg/Kg	113	
RC-SD-01-001-100713	mg/Kg	174	
RC-SD-02-001-100713	mg/Kg	177	
RC-SD-03-001-100713	mg/Kg	302	
RC-SD-04-001-100713	mg/Kg	163	
RC-SD-05-001-100713	mg/Kg	86.4	
FD-100713-01	mg/Kg	163	
RC-SD-09-001-100713	mg/Kg	89.2	
RC-SD-40-002-100713	mg/Kg	58.6	
RC-SD-41-002-100813	mg/Kg	228	
RC-SD-48-001-100813	mg/Kg	15.0	
FD-100813-01	mg/Kg	16.9	

Notes:

mg/Kg = milligrams per kilogram

MCP GW-1 Standard: 10

MCP GW-3 Standard: 900

APPENDIX K

Response to Comments

(See CD Included Separately)

MassDEP COMMENTS ON
DRAFT FINAL REMOVAL ACTION COMPLETION REPORT FOR
RAILROAD ROUND HOUSE AND RED COVE
FORMER FORT DEVENS ARMY INSTALLATION (RTN 2-0000662)
May 2, 2014

Comments on the draft final Removal Action Completion Report for Railroad Round House and Red Cove, received May 2, 2014:

1) Section 4.7.1: The report should cite or include documentation to support the assertion that the range of arsenic concentrations reported in the staging area samples (8.93 mg/kg to 35.4 mg/kg) is within the local background range.

   Response:

   The source citation will be inserted in the text.

   In March 2004, a Final Soil Arsenic Background Study at Former Fort Devens Site documented background arsenic concentrations ranging from 3.8 to 38 mg/kg. Recognizable consistencies in elevated arsenic concentrations (>20 ppm) were documented in particular in the west central, southwestern and southeastern portions of Devens potentially attributable to the geology of these areas. This study was completed by the Army Corp of Engineers.

2) Tables 2 and 4: The laboratory data qualifiers presented in these tables should be replaced with the data validation qualifiers (Appendix J).

   Response:

   These tables are intended to present laboratory data. Any change to validated data is noted in Appendix J.

3) Appendix C should include laboratory reports for all of the September 2013 and October 2013 surface water monitoring events, and the laboratory report presenting results from SA-71 sediment samples (p. 656-691) should be deleted from Appendix C.

   Response:

   These pages will be removed from Appendix C.

4) Appendix E: Laboratory reports for waste characterization samples (p. 1364-1912) should be moved to Appendix F.

   Response:

   These soil samples were part of the investigation around the vault buried at Railroad Round House and belong in Appendix E.

5) Appendix F: Laboratory reports for the staging area samples (p. 2318-2413) should be moved to Appendix G.

Response:

The pages noted will be moved to Appendix G.

6) Appendix G: Please confirm/correct the location of the SHL02 area shown in the sample location map. The indicated location does not appear to be a sediment staging area, suggesting that SHL02 was actually located farther to the east where SA-71 sediment was staged. In addition, the map should be corrected to eliminate inconsistencies between the sample identifiers, posted sample results, and sample locations shown in the map and concentrations listed in the laboratory reports.

Response:

The location of SHL02 is correct. Any inconsistencies in sample nomenclature and locations will be corrected.

7) Appendix J, Page 71 of DQE Report: Results from sample RC-SD-52-001-091113, which was collected from Red Cove, should be listed with the Red Cove sample results.

Response:

The sample results were moved to the Red Cove sample results section.

EPA COMMENTS ON
DRAFT FINAL REMOVAL ACTION COMPLETION REPORT FOR
RAILROAD ROUND HOUSE AND RED COVE
FORMER FORT DEVENS ARMY INSTALLATION (RTN 2-0000662)
May 2, 2014

GENERAL COMMENTS

1) The report offers an accurate summary of the removal actions completed during 2013 and includes all of the documentation typically included in a closeout report. However, the information could be presented more clearly if some editorial changes were made, such as changing the tense of work descriptions from future to past, and ensuring that references to figures presented in the text of the report are accurate.

   Response:

   The text will be revised as necessary to improve the readability of the RACR.

2) Please define the JB qualifier in Table 2 and Table 4.

   Response:

   The qualifiers noted at a 'J' and a 'B', not 'JB'. The notes for each qualifier are located at the notes section of each table. The definition of the 'B' qualifier will be added to the Table 2 and 4.

SPECIFIC COMMENTS

1) Table of Contents – Figure and Table descriptions listed in the TOC do not match actual figure and table names. Please revise.

   Response:

   The table of context will be revised as needed.

2) Section 1, 2nd bullet and Section 3.2.1, pg 7 – To be consistent with the removal action at Red Cove (arsenic-impacted sediments), please consider adding *mitigate "PAH and antimony" impacts to sediment* in describing the rationale for the RRRH removal action.

   Response:

   The Removal Action Objectives for Red Cove and Railroad Round House were established and agreed to in the ECCA (Sovereign, 2011), therefore the bullet will remain the same.

3) Section 2.2, pg 5 – The next to last paragraph describes the benthic community in the Railroad Round House area and concludes in the last sentence "The CSI did not establish a distinction between ash and non-ash exposure area locations." Although this is correct for

the benthic community, it ignores the fact that the sediment toxicity and chemistry data for the RRRH area were sufficient for EPA to derive a risk-based preliminary remedial goal for antimony, as acknowledged on the top of page 8. Therefore, it is recommended that language equivalent to the following be inserted after the above-mentioned sentence:

"However, the sediment toxicity and chemistry data were sufficient for EPA to derive a risk-based preliminary remedial goal (PRG) for antimony."

Response:

The recommended text will be inserted as described above.

4) Section 2.1.1 – In the last paragraph it is stated "The predominant source of the dissolved arsenic emanating from the landfill appears to be naturally occurring arsenic within aquifer sands and bedrock materials. Arsenic is being mobilized by both naturally-occurring and landfill-induced conditions through the geochemical process of reductive dissolution which releases dissolved arsenic to the aquifer." Please revise this sentence because EPA believes that there may be additional sources of arsenic-containing wastes in the landfill.

Response:

The phrase "predominant source of dissolved arsenic" infers that the naturally occurring arsenic is not the only source dissolved arsenic released to the aquifer from SHL, but the largest contributing component. Therefore the Army does not agree that the language should be revised in this instance.

5) Section 3.1.2, pg 6, 1st paragraph and Figure 3 – Although this section addresses Red Cove, Figure 3 depicts RRRH excavation area. Please revise.

Response:

The figure number will be updated in the text to state "Figure 2".

6) Section 3.3.2, pg 9, 2nd paragraph – The quantity of sediment (CY) to be excavated does not correlate with the "directly disturbed" sediment amounts. Please clarify.

Response:

*Red Cove - (80,000 ft^2 * 12 inches * 1 ft/ 12 inches) / (1 yd^3 / 27 ft^3) = 2,963 yd^3 ~ 3,000 yd^3*

*RRRH - (8,000 ft^2 * 36 inches * 1 ft/ 12 inches) / (1 yd^3 / 27 ft^3) = 889 yd^3 ~ 900 yd^3*

7) Section 3.3.2, pg 9, 4th paragraph – This section refers to a barrier/were that was installed prior to dewatering activities. Please update the figure(s) to depict the location of the barrier/weir. Please update to show that Section 4.2 discusses Site Preparation activities (not Section 4.3). Please also provide an estimated pumping rate per day instead of only referencing the drawdown per day (i.e., 12 inches per day).

Response:

The text in section 3.3.2 will be changed to state the following: "To maintain a suitable water level and environment for the ponds eco-system within Grove Pond, *a dam of sandbags was built to isolate Grove Pond from Plow Shop Pond. The sandbags were placed to create a low flow weir, to allow controlled overflow from one pond to another prior to dewatering activities*."

The flow of water was not measured, the pond level was determined to be the key metric in the RAWP, therefore the pond drawdown was recorded.

8) Section 3.3.2, pg 10, 2nd paragraph – This paragraph states there are currently no critical aquatic species in Plow Shop Pond, however, in Section 1.1 the report states the pond is considered an Area of Critical Environmental Concern (ACEC). Please address this apparent inconsistency in the report.

Response:

As stated in Section 1.1 "There are no rare species in the pond but adjacent upland is mapped by NHESP for several state listed species and the state and federally listed grasshopper sparrow." The language in Section 1.1 will be updated to clarify this point.

9) Section 4.4.1, pg 14 – Add "dewatering" to "temporary basins".

Response:

The word dewatering was inserted as recommended.

10) Section 4.4.2, pg 12 – The last sentence before Section 4.2.4 states "This periodic pumping at lower flows provided continuous water to Nonacoicus Brook, to the extent practicable." The phrase "to the extent practicable" implies that it may not have been practical to provide continuous flow to the brook at all times. Please discuss at this point in the text whether there were periods of no flow and, if so, the duration of no flow periods, if known. Also, please discuss whether flow was monitored and recorded in the field notes.

Response:

The following text will be inserted in Section 4.3: "When dewatering of the pond was conducted intermittently the brook conditions were monitored for water level, temperature and aquatic activity. These notes are located in Appendix C."

11) Section 4.4.3, pg 14 – Consider moving section or re-numbering figure (Figure 13D), since figure numbering order does not align with order of text. Please add approximate depth of the abandoned vault.

Response:

Figure 13D has been eliminated and Figure 11 will be updated and used in its place.

12) Section 4.5, pg 15-16 – Tables 2 and 3 summarize post-excavation sediment results; Figures 4 and 5 depict grid locations; and sampling data is depicted in Figures 12a and 12b. Please consider updating Table 2 to include columns that identify Grid # and Post-excavation sampling depth. This will facilitate data review. Please add sampling dates to the text. There are data (sample numbers "FD-XXX") that are not depicted in Figures 12a or 12b. Please explain. Also, please mark in Table 2 the actual concentrations of arsenic that were used to calculate the post-excavation average and UCL using ProUCL so that EPA can reproduce the numbers.

Response:

As described in the RAWP the sample labels include the Grid Number; for example RC-SD-01-001 is located in Grid 01. The FD samples are Field Duplicates, as described in the RAWP and FSP, therefore, they are not explicitly marked on figures as their original samples are. For ease of reading the updated Table 2 includes a note column if the sample was used to calculate the average and if it was included in the ProUCL calculations. Table 2 has been updated to include the Grid # and sample depth.

Revised RTC, see red text.

What about the sampling date in the text?

13) Section 4.5.2 – The last sentence of the first paragraph states "All excavated sediments were inspected for visual evidence of the targeted railroad maintenance byproduct deposits and removed as noted." Please clarify the phrase "removed as noted." Does it mean as noted previously in the methods description or something else. Change "Proposed Action Limit" to "Preliminary Remedial Goal ("PRG") for antimony to be consistent with the RAWP.

This section indicates that antimony samples were collected from 19 cells and concentrations from 10 of the 19 cells were above 4.6 mg/kg. However, Figures 5 and 13a depict 24 sampling grids, with arsenic exceedances in 14 of the grids. Please revise the text.

Response:

The word "below" will be inserted in the last sentence of the first paragraph.

PAL will be replaced by PRG throughout the RACR.

The text describes the chronological order of events, correctly. Figures 13a, 13b and 13c represent the rounds of data collected per cell. Each are correct, therefore no changes to the text or figures have been made.

Please discuss how the post-excavation statistical average was calculated, specifically, mention that the average was calculated using post-excavated concentrations. The actual concentrations used for calculating this average should be marked on Table 4 so that EPA can reproduce the calculation. If it is decided to use ProUCL, please provide a copy of output.

An arithmetic mean was used to calculate the average antimony concentration of all post excavation data. The following text edit will be made to clarify this point.

"The *arithmetic mean* of all the cells*, post excavation, is* below the 4.6 mg/kg antimony limit."

Table 4 will include a note column if the sample was used to calculate the average.

14) Section 4.5.2 - In the next to last paragraph on page 16 it is stated that the overall statistical average of all the cells is below the 4.6 mg/kg antimony limit. Please add a sentence that identifies the method for calculating the overall statistical average as well as the calculated mean concentration of antimony.

<u>Response:</u>

An arithmetic mean was used to calculate the average antimony concentration of all post excavation data. Text edits will be made as noted in the response to comment 13 above.

15) Section 4.7.1 – The last sentence of the first paragraph states: "All the arsenic data collected was [sic] below or within range of regional background concentration (of) arsenic [sic]." Please provide the range of background concentrations and the source of this information.

<u>Response:</u>

Please see the response to MassDEP Comment No.1.

16) Section 4.7.1, 2nd paragraph – Please replace "tolerable" with "tolerant" unless the term "tolerable" is technically correct to describe this type of seed mix.

<u>Response:</u>

The recommended text edit will be made.

17) Section 6.4: Since much of the data were Q-qualified, please provide a discussion in this section that specifically evaluates the usability of Q-qualified data for its intended purpose (i.e. exceedance of statistical mean).

Response:

The following text will be inserted at the end of Section 6.4:

"As noted in the DQE, all of the Q qualifiers were removed because the quality control check at the laboratory that caused them is not within the description of Level 2 data validation. So, all of the results were usable. Page 5 of the DQE discusses the removal of the Qs."

18) Section 8.0, pg 22 – Please provide a note defining the asterisk next to Site Preparation Costs.

Response:

The asterisk will be deleted.