Sequence Overview

Sequence Details

Name:	**090721A REPROC**	*Created On:*	**10/Feb/16 13:48:22**
Directory:	**Instrument Data\ICS-2100\2021\09-SEP**	*Created By:*	**Katahdin Analytical**
Data Vault:	**ChromeleonLocal**	*Updated On:*	**08/Sep/21 15:00:50**
No. of Injections:	**33**	*Updated By:*	**Katahdin Analytical**

Injection Details

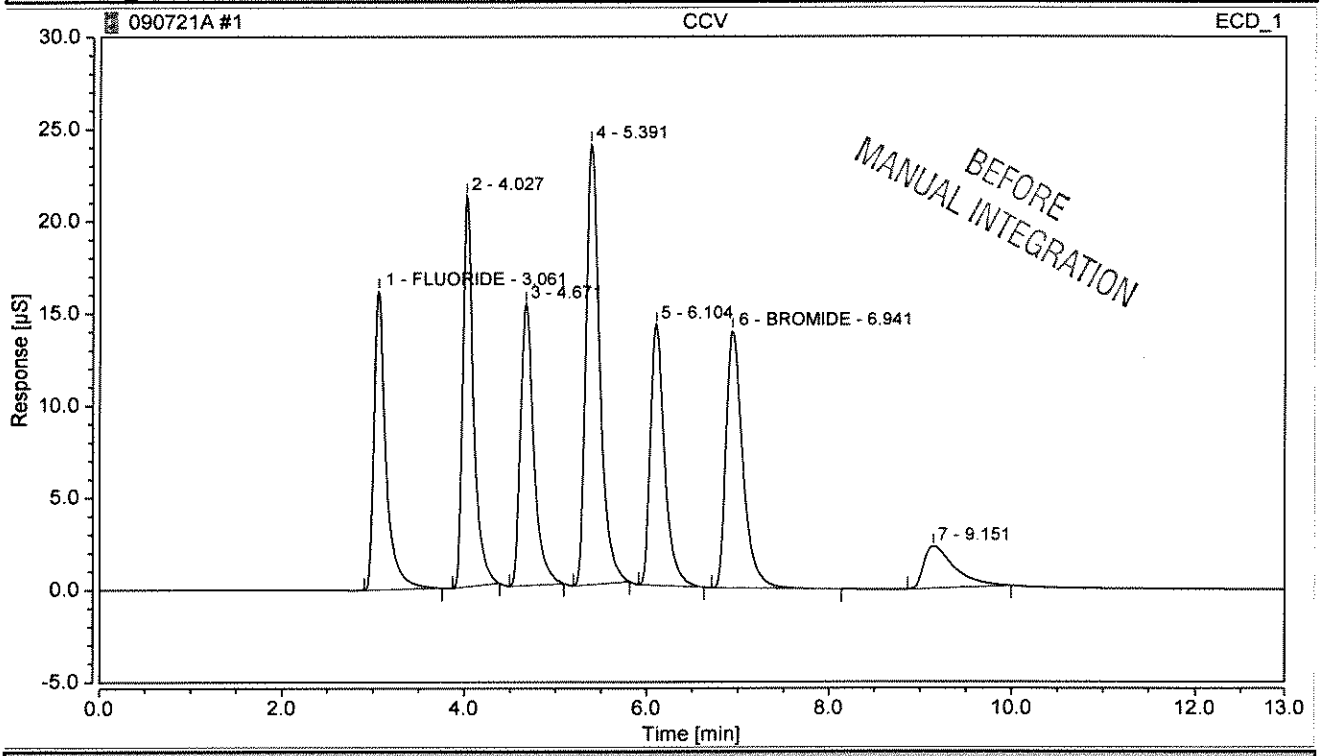
No.	Injection Name	Position	Type	Level	Inject Time	Status
1	CCV	1	Check Standard	06	07/Sep/21 15:42:34	Finished
2	CCB	2	Unknown		07/Sep/21 16:00:45	Finished
3	LCS	3	Check Standard	07	07/Sep/21 16:19:33	Finished
4	LCS	4	Check Standard	07	07/Sep/21 16:38:22	Finished
5	SO5463-1	5	Unknown		07/Sep/21 16:57:10	Finished
6	SO5463-2	6	Unknown		07/Sep/21 17:15:59	Finished
7	SO5463-2 MS	7	Unknown		07/Sep/21 17:34:47	Finished
8	SO5463-2 MSD	8	Unknown		07/Sep/21 17:53:35	Finished
9	SO5512-1	9	Unknown		07/Sep/21 18:12:23	Finished
10	SO5557-1	10	Unknown		07/Sep/21 18:31:12	Finished
11	SO5557-1	11	Unknown		07/Sep/21 18:50:00	Finished
12	SO5557-3	12	Unknown		07/Sep/21 19:08:48	Finished
13	CCV	13	Check Standard	06	07/Sep/21 19:27:36	Finished
14	CCB	14	Unknown		07/Sep/21 19:46:25	Finished
15	SO5506-6	15	Unknown		07/Sep/21 20:05:23	Finished
16	SO5556-2	16	Unknown		07/Sep/21 20:24:11	Finished
17	SO5689-1	17	Unknown		07/Sep/21 20:42:59	Finished
18	SO5689-3	18	Unknown		07/Sep/21 21:01:48	Finished
19	SO5689-5	19	Unknown		07/Sep/21 21:20:36	Finished
20	SO5689-7	20	Unknown		07/Sep/21 21:39:24	Finished
21	SO5689-9	21	Unknown		07/Sep/21 21:58:12	Finished
22	SO4882-16	22	Unknown		07/Sep/21 22:17:01	Finished
23	SO4882-16	23	Unknown		07/Sep/21 22:35:49	Finished
24	SOIL BLANK 08/23	24	Unknown		07/Sep/21 22:54:37	Finished
25	CCV	25	Check Standard	06	07/Sep/21 23:13:25	Finished
26	CCB	26	Unknown		07/Sep/21 23:32:14	Finished
27	SOIL LCS 08/23	27	Unknown		07/Sep/21 23:51:02	Finished
28	SO4882-6	28	Unknown		08/Sep/21 00:09:50	Finished
29	SO4882-6	29	Unknown		08/Sep/21 00:28:38	Finished
30	SOIL BLANK 09/07	30	Unknown		08/Sep/21 00:47:27	Finished
31	SOIL LCS 09/07	31	Unknown		08/Sep/21 01:06:15	Finished
32	CCV	32	Check Standard	06	08/Sep/21 01:25:03	Finished
33	CCB	33	Unknown		08/Sep/21 01:43:51	Finished

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**1**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 15:42**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

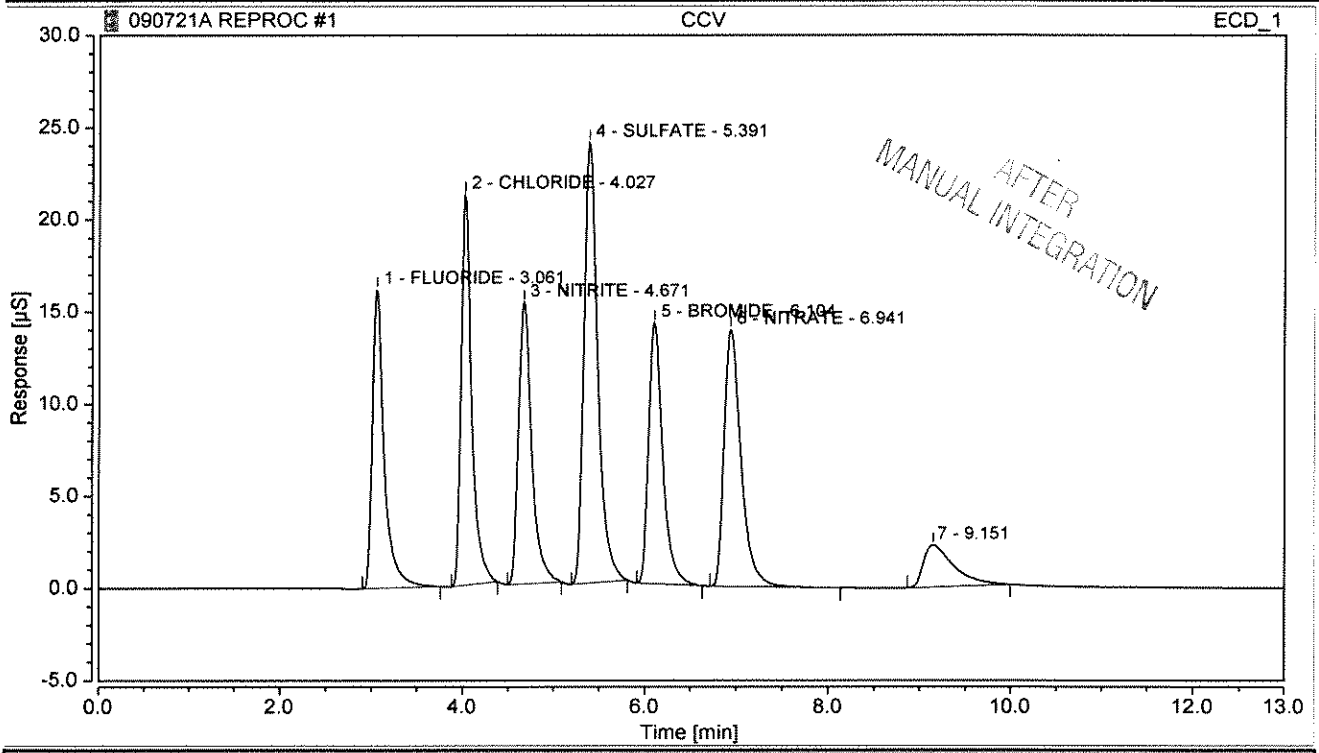
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	2.452	16.209	13.18	15.15	5.1965	3.9293
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.941	3.008	13.935	16.17	13.03	20.0325	0.1624
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.460**	**30.143**	**29.35**	**28.18**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**1**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 15:42**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

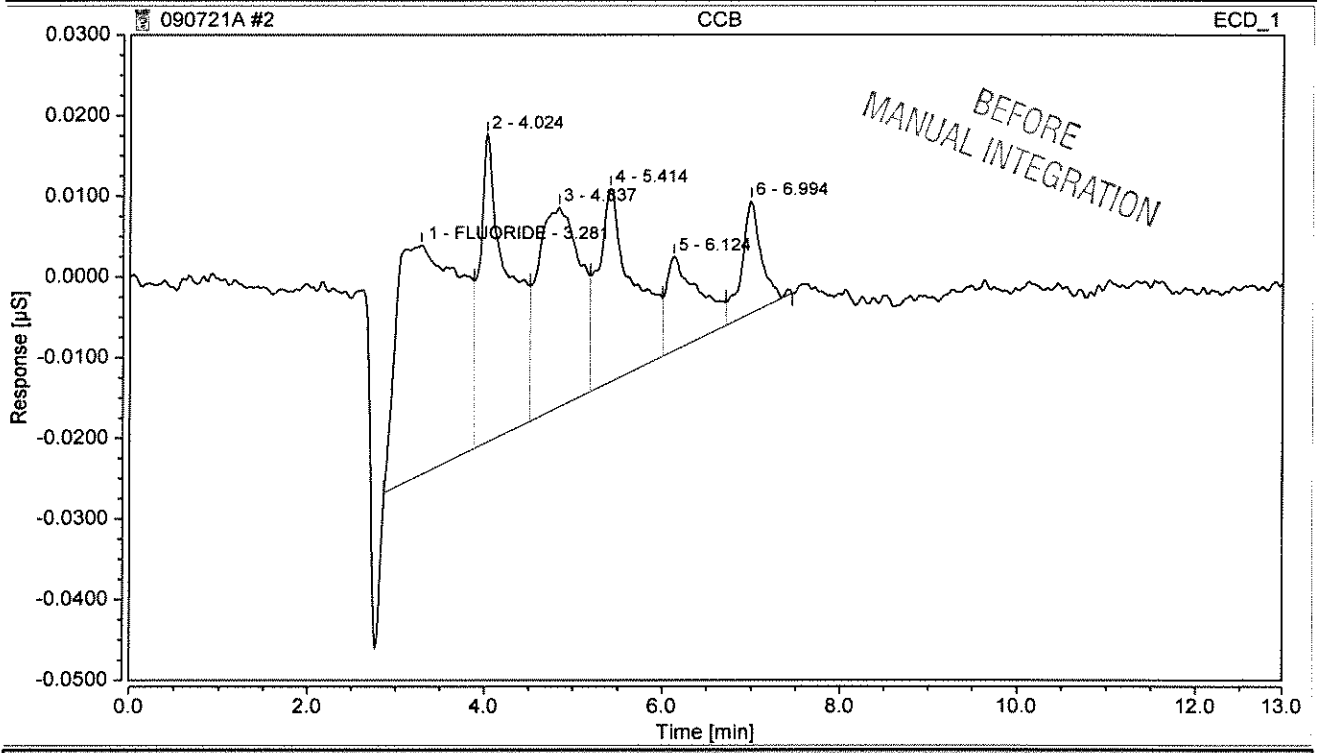
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	2.452	16.209	13.18	15.15	5.1965	3.9293
2	CHLORIDE	4.027	2.888	21.213	15.52	19.83	9.9805	-0.1955
3	NITRITE	4.671	2.584	15.275	13.89	14.28	4.2101	5.2537
4	SULFATE	5.391	4.211	23.903	22.63	22.34	19.7278	-1.3611
5	BROMIDE	6.104	2.576	14.162	13.85	13.24	20.3589	1.7944
6	NITRATE	6.941	3.008	13.935	16.17	13.03	4.0267	0.6671
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**17.719**	**104.696**	**95.24**	**97.87**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.98**
Vial Number:	**2**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 16:00**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

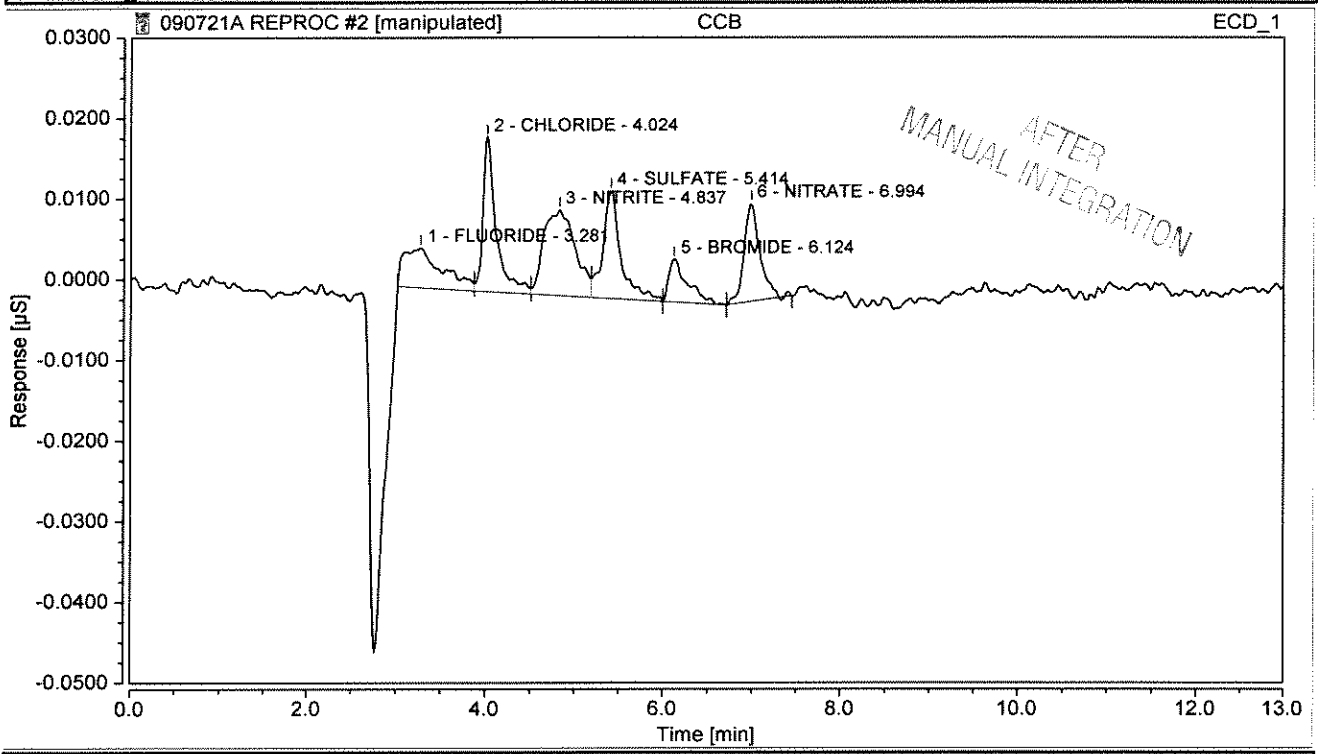
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.281	0.024	0.029	32.92	20.19	0.0499	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.024**	**0.029**	**32.92**	**20.19**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.98**
Vial Number:	**2**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 16:00**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

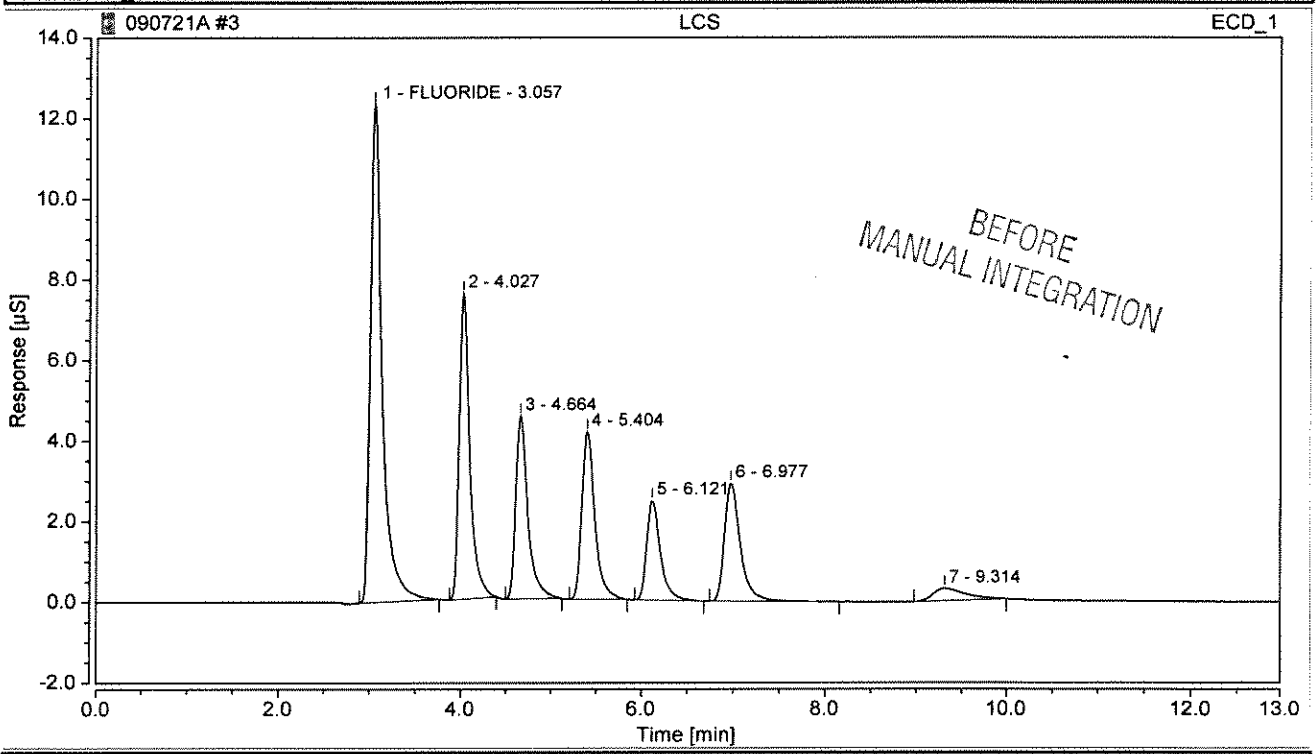
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.281	0.002	0.005	14.38	7.59	0.0052	n.a.
2	CHLORIDE	4.024	0.003	0.019	19.18	29.17	0.1012	n.a.
3	NITRITE	4.837	0.004	0.011	25.58	16.24	0.0071	n.a.
4	SULFATE	5.414	0.003	0.013	18.35	20.36	0.0147	n.a.
5	BROMIDE	6.124	0.001	0.005	7.43	8.10	0.0076	n.a.
6	NITRATE	6.994	0.003	0.012	15.07	18.54	0.0321	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.017**	**0.066**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**12.98**
Vial Number:	**3**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 16:19**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

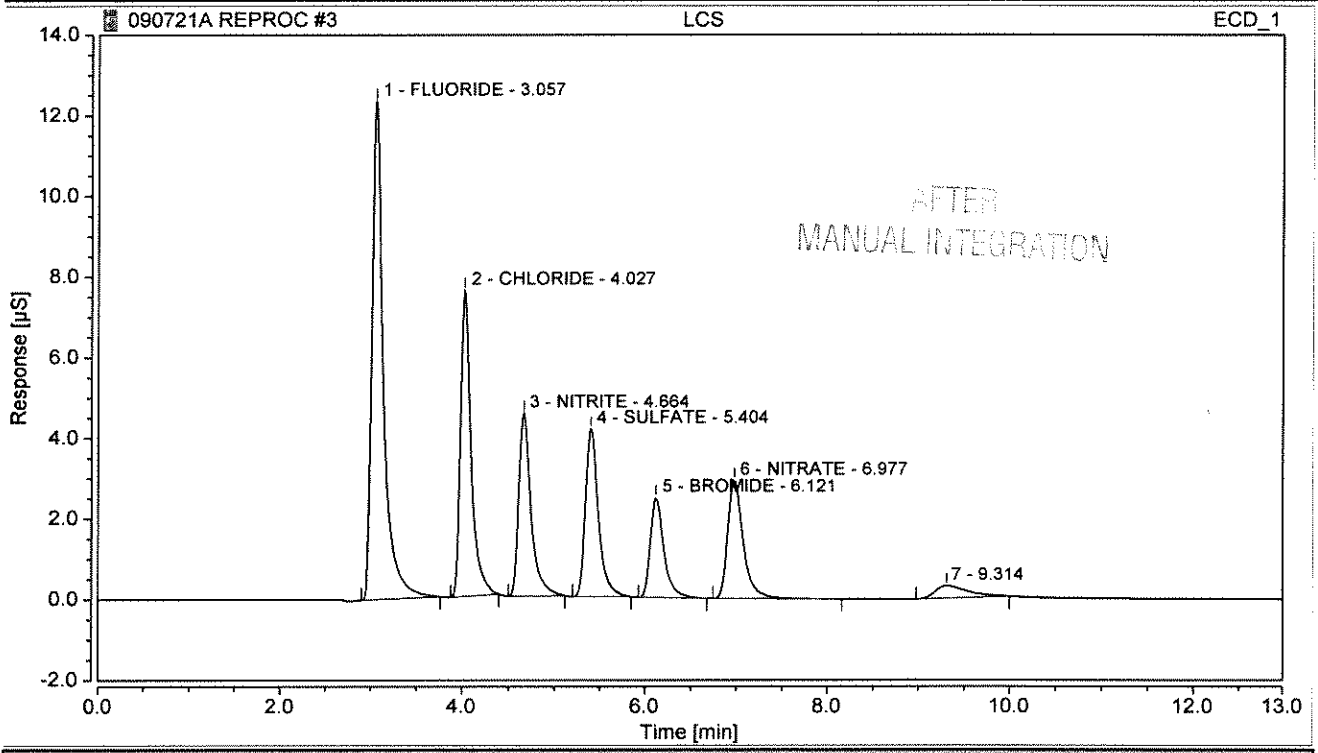
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	1.826	12.358	33.78	35.97	3.8699	3.1962
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**1.826**	**12.358**	**33.78**	**35.97**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**12.98**
Vial Number:	**3**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 16:19**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

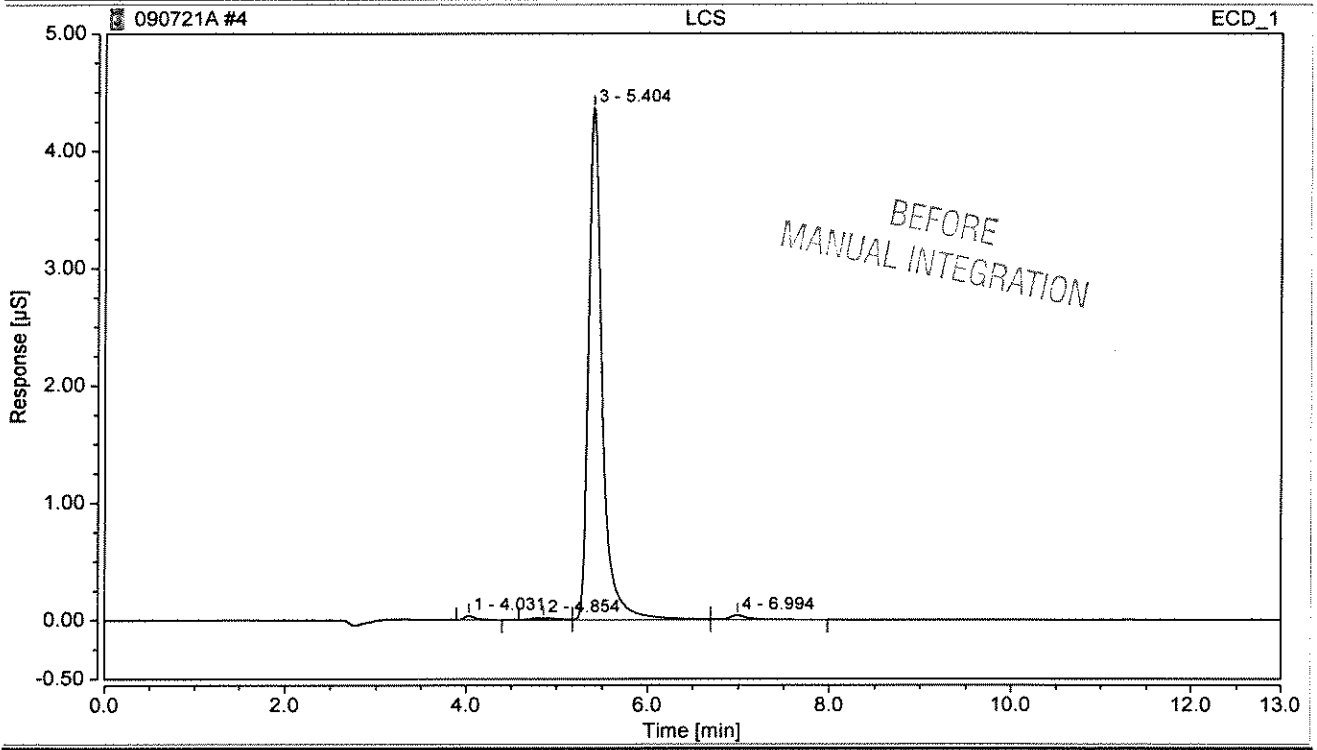
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	1.826	12.358	33.78	35.97	3.8699	3.1962
2	CHLORIDE	4.027	1.020	7.592	18.88	22.10	3.5842	-4.4214
3	NITRITE	4.664	0.710	4.534	13.14	13.20	1.1569	1.4835
4	SULFATE	5.404	0.698	4.161	12.91	12.11	3.2697	-12.8076
5	BROMIDE	6.121	0.433	2.474	8.01	7.20	3.5571	-5.1442
6	NITRATE	6.977	0.590	2.929	10.92	8.52	0.8136	-3.7143
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.278**	**34.048**	**97.64**	**99.10**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**12.98**
Vial Number:	**4**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 16:38**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

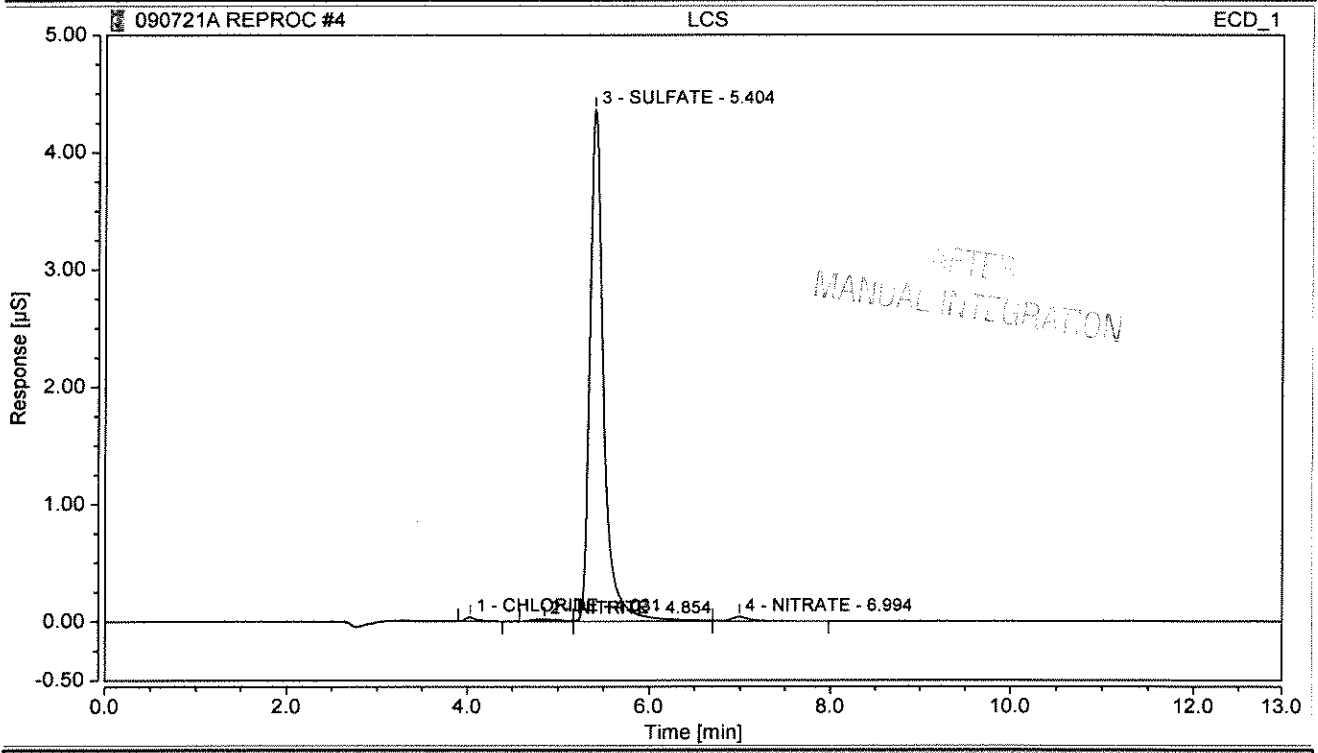
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**12.98**
Vial Number:	**4**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 16:38**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

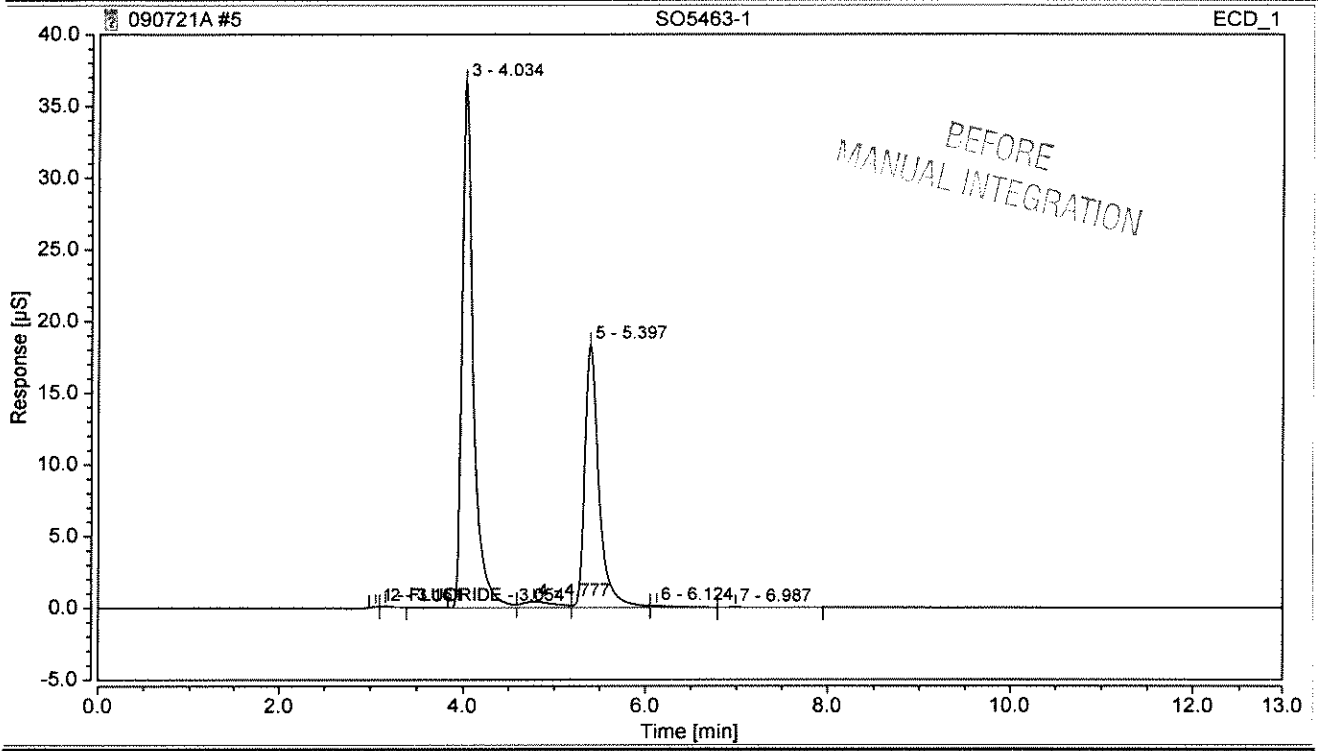
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	CHLORIDE	4.031	0.005	0.035	0.67	0.79	0.1081	-97.1174
2	NITRITE	4.854	0.006	0.017	0.73	0.38	0.0094	-99.1748
3	SULFATE	5.404	0.774	4.366	97.32	97.98	3.6281	-3.2509
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	NITRATE	6.994	0.010	0.038	1.29	0.85	0.0423	-94.9898
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.796**	**4.456**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-1**	*Run Time (min):*	**12.97**
Vial Number:	**5**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 16:57**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

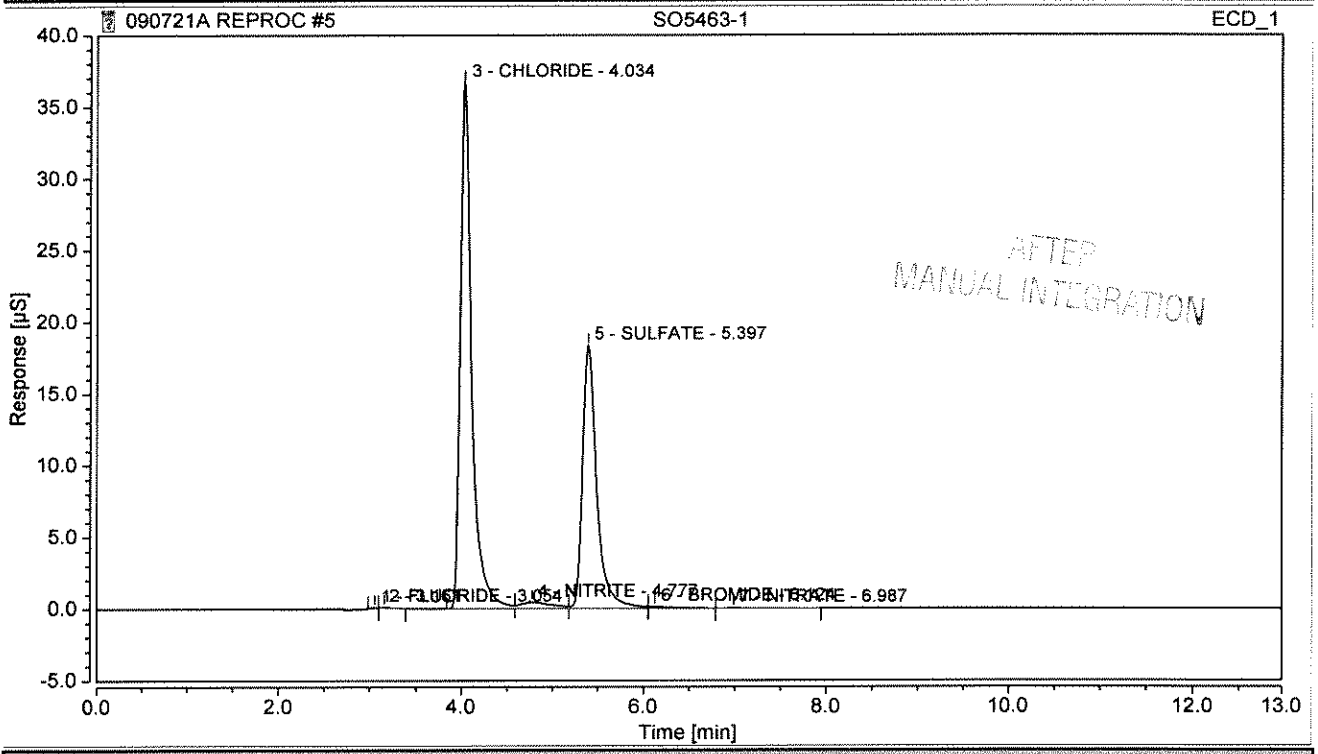
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.054	0.002	0.031	0.03	0.05	0.0101	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.002**	**0.031**	**0.03**	**0.05**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-1**	*Run Time (min):*	**12.97**
Vial Number:	**5**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 16:57**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

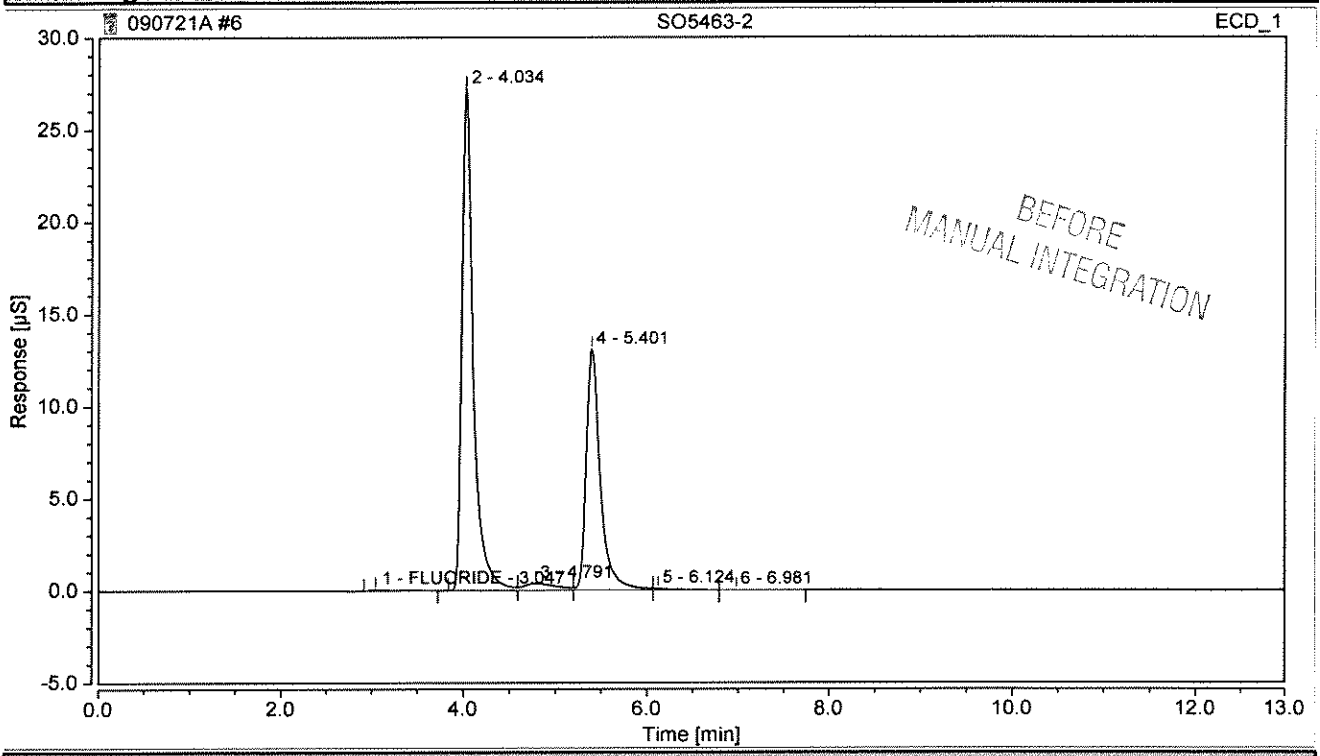
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.054	0.002	0.031	0.03	0.05	0.0101	n.a.
3	CHLORIDE	4.034	5.227	36.684	59.29	65.87	35.9800	n.a.
4	NITRITE	4.777	0.179	0.430	2.03	0.77	0.5837	n.a.
5	SULFATE	5.397	3.350	18.356	37.99	32.96	31.3867	n.a.
6	BROMIDE	6.124	0.042	0.122	0.48	0.22	0.3515	n.a.
7	NITRATE	6.987	0.011	0.025	0.13	0.04	0.0868	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.812**	**55.647**	**99.94**	**99.93**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-2**	*Run Time (min):*	**12.98**
Vial Number:	**6**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 17:15**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

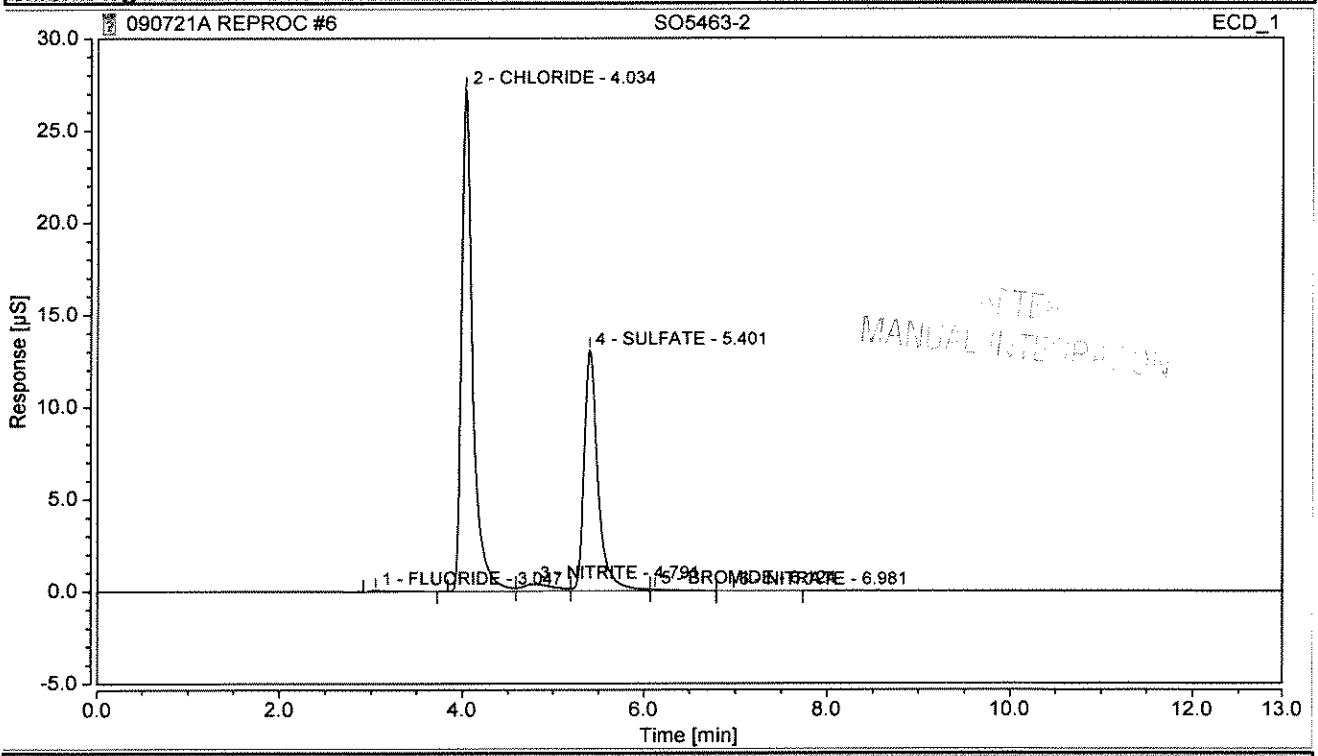
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.019	0.074	0.29	0.18	0.0789	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.019**	**0.074**	**0.29**	**0.18**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-2**	*Run Time (min):*	**12.98**
Vial Number:	**6**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 17:15**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

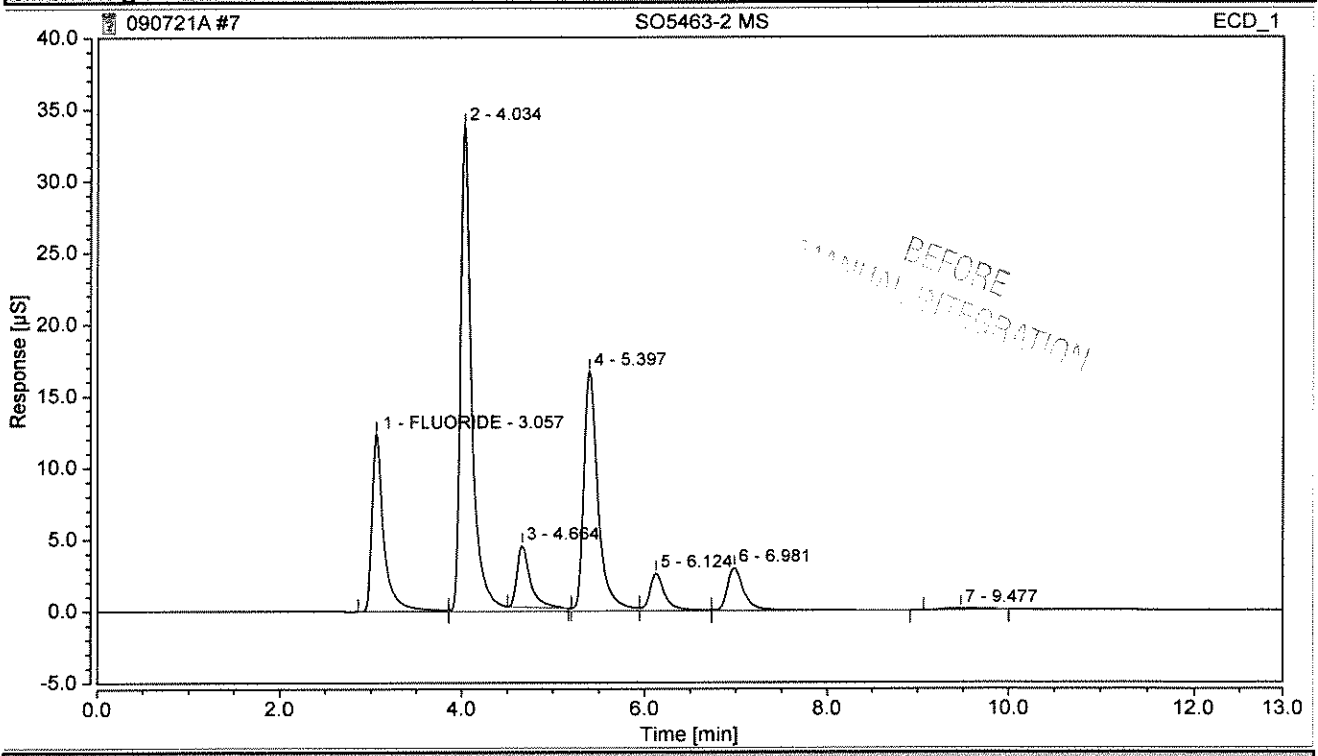
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.019	0.074	0.29	0.18	0.0789	n.a.
2	CHLORIDE	4.034	3.868	27.221	60.16	66.69	26.6735	n.a.
3	NITRITE	4.791	0.152	0.372	2.37	0.91	0.4968	n.a.
4	SULFATE	5.401	2.358	13.057	36.68	31.99	22.0987	n.a.
5	BROMIDE	6.124	0.026	0.078	0.41	0.19	0.2254	n.a.
6	NITRATE	6.981	0.006	0.015	0.10	0.04	0.0736	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.430**	**40.817**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-2 MS**	*Run Time (min):*	**12.98**
Vial Number:	**7**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 17:34**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

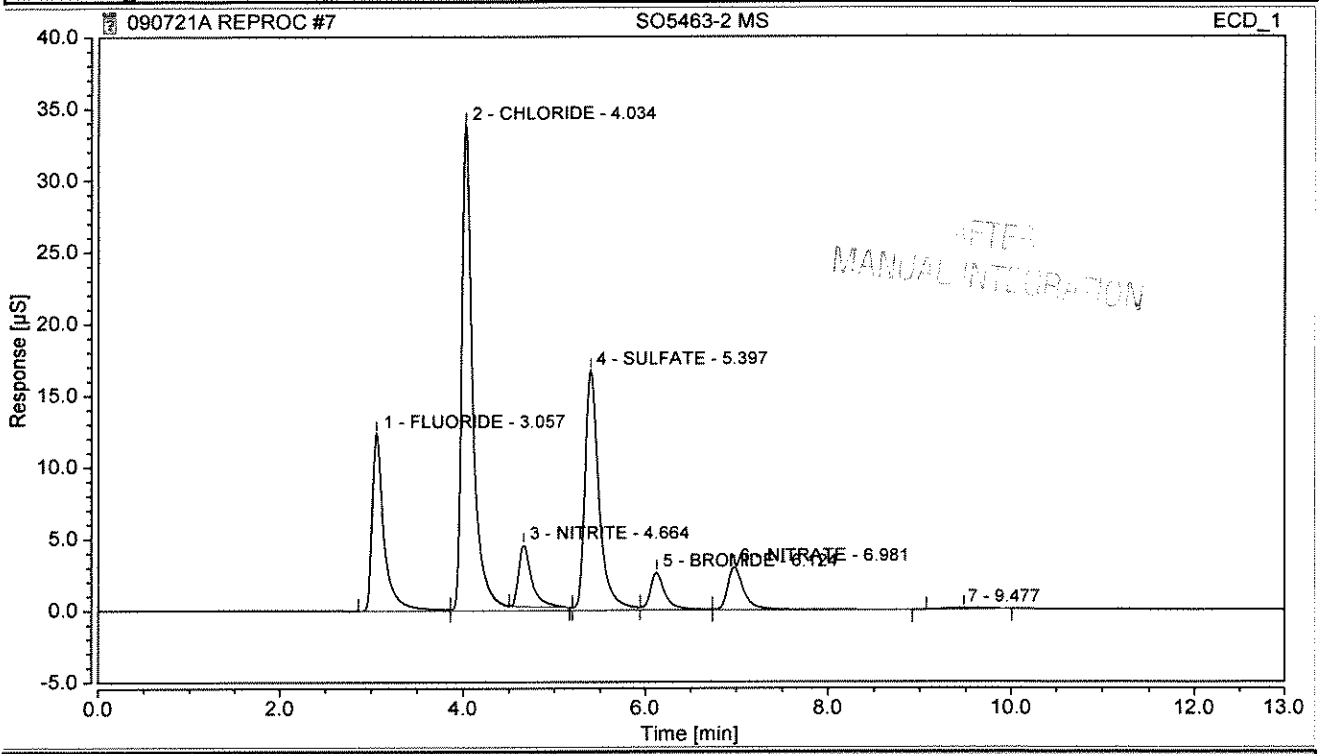
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	1.887	12.359	15.95	16.95	7.9983	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**1.887**	**12.359**	**15.95**	**16.95**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-2 MS**	*Run Time (min):*	**12.98**
Vial Number:	**7**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 17:34**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

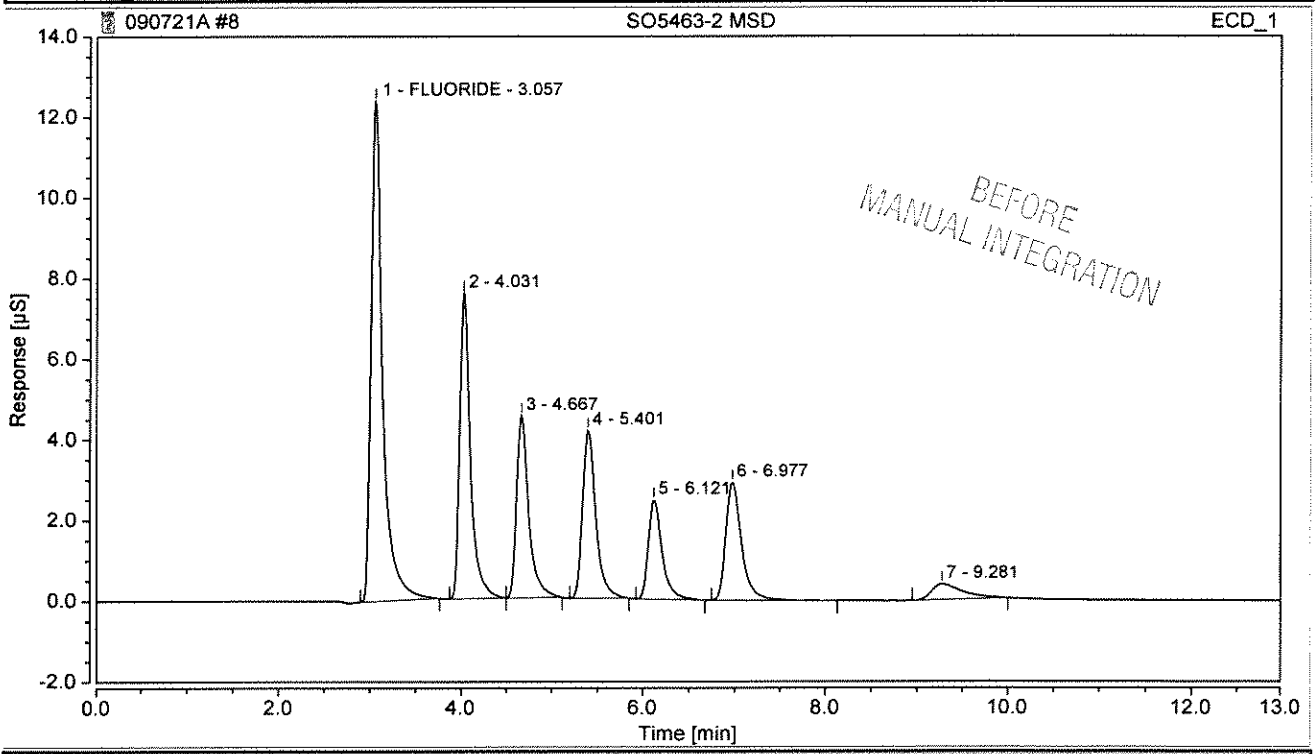
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	1.887	12.359	15.95	16.95	7.9983	n.a.
2	CHLORIDE	4.034	4.991	33.867	42.18	46.43	34.3606	n.a.
3	NITRITE	4.664	0.725	4.298	6.13	5.89	2.3626	n.a.
4	SULFATE	5.397	3.045	16.726	25.74	22.93	28.5311	n.a.
5	BROMIDE	6.124	0.512	2.628	4.33	3.60	7.5560	n.a.
6	NITRATE	6.981	0.631	2.975	5.33	4.08	1.7350	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.792**	**72.853**	**99.66**	**99.89**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-2 MSD**	*Run Time (min):*	**12.98**
Vial Number:	**8**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 17:53**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

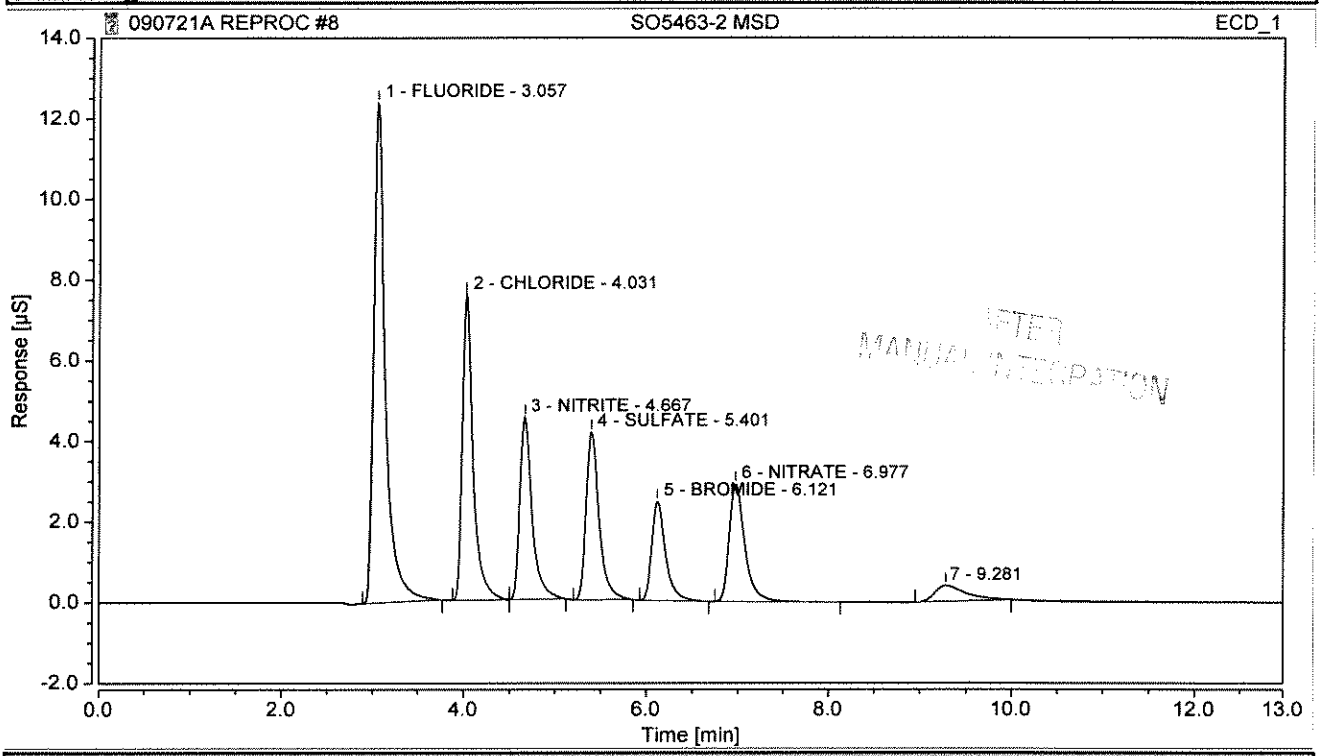
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	1.827	12.403	33.53	36.01	7.7439	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**1.827**	**12.403**	**33.53**	**36.01**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-2 MSD**	*Run Time (min):*	**12.98**
Vial Number:	**8**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 17:53**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

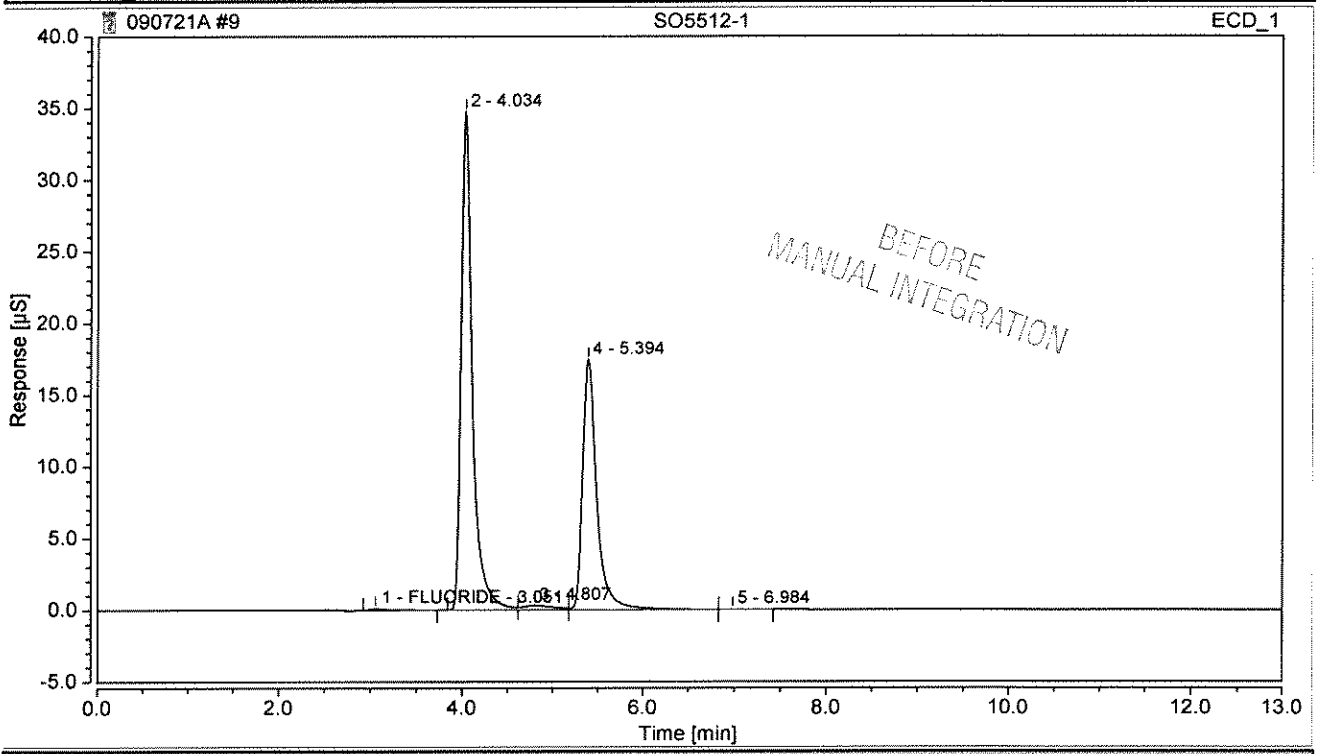
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	1.827	12.403	33.53	36.01	7.7439	n.a.
2	CHLORIDE	4.031	1.039	7.581	19.07	22.01	7.2957	n.a.
3	NITRITE	4.667	0.709	4.520	13.01	13.12	2.3106	n.a.
4	SULFATE	5.401	0.698	4.161	12.80	12.08	6.5378	n.a.
5	BROMIDE	6.121	0.431	2.464	7.91	7.15	7.0848	n.a.
6	NITRATE	6.977	0.589	2.924	10.81	8.49	1.6243	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.294**	**34.053**	**97.14**	**98.86**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5512-1**	*Run Time (min):*	**12.99**
Vial Number:	**9**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 18:12**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

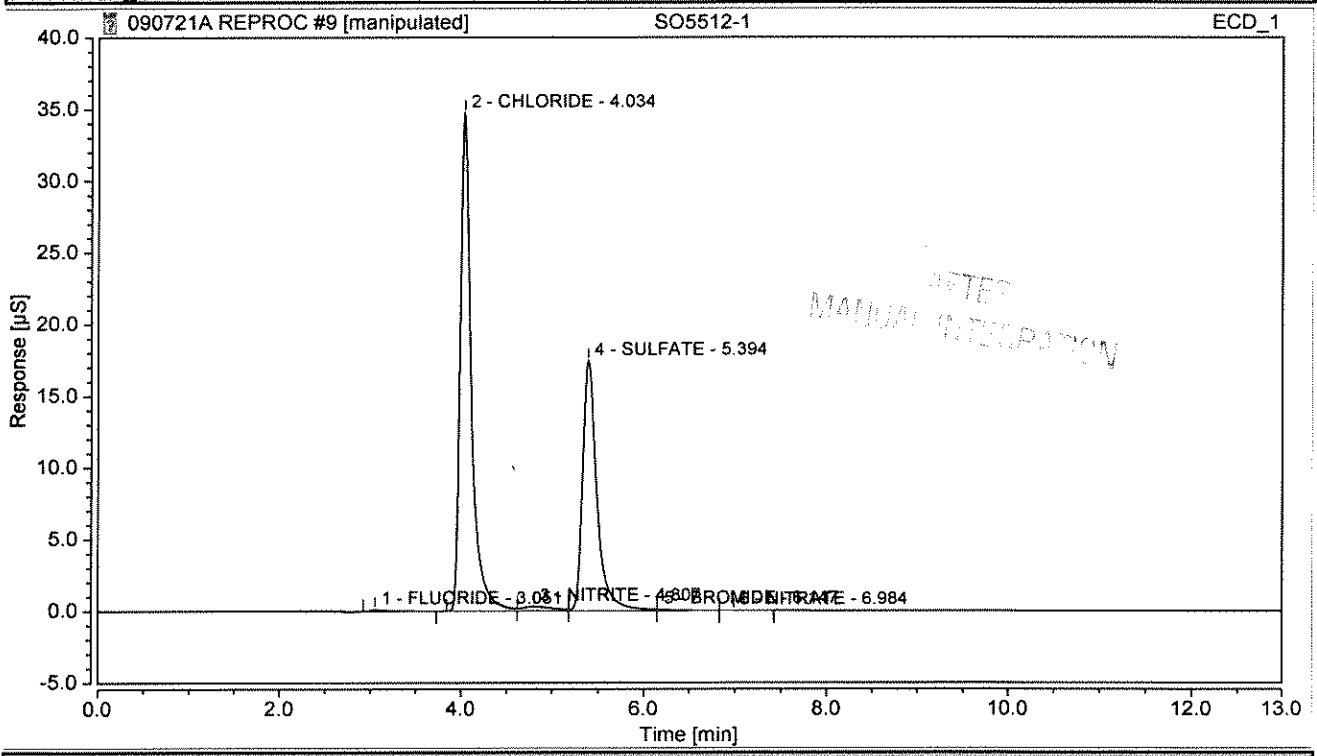
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.025	0.112	0.30	0.21	0.1048	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.025**	**0.112**	**0.30**	**0.21**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5512-1**	*Run Time (min):*	**12.99**
Vial Number:	**9**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 18:12**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

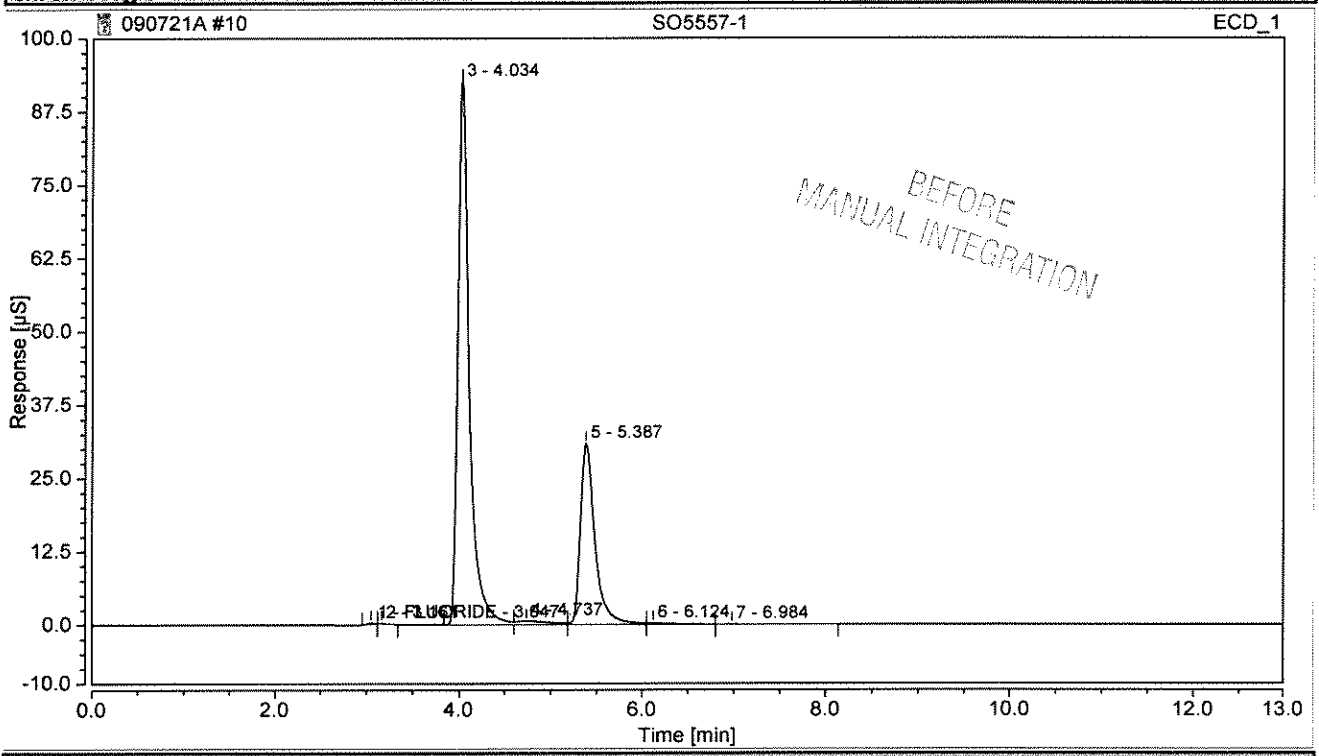
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.025	0.112	0.30	0.21	0.1048	n.a.
2	CHLORIDE	4.034	4.905	34.739	59.60	65.95	33.7715	n.a.
3	NITRITE	4.807	0.116	0.299	1.41	0.57	0.3784	n.a.
4	SULFATE	5.394	3.157	17.424	38.36	33.08	29.5787	n.a.
5	BROMIDE	6.147	0.021	0.082	0.26	0.16	0.2355	n.a.
6	NITRATE	6.984	0.005	0.018	0.06	0.03	0.0712	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.229**	**52.674**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5557-1**	*Run Time (min):*	**12.98**
Vial Number:	**10**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 18:31**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

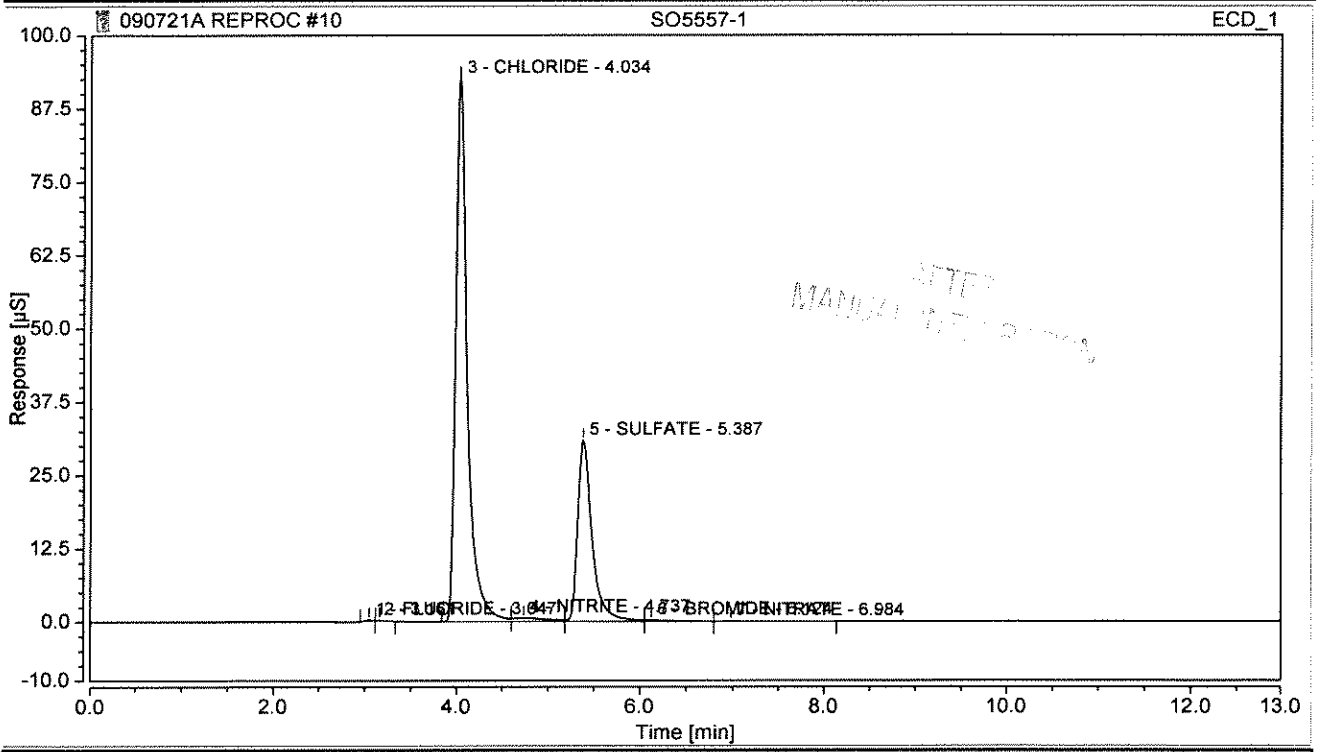
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.012	0.145	0.06	0.12	0.0250	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.012**	**0.145**	**0.06**	**0.12**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5557-1**	*Run Time (min):*	**12.98**
Vial Number:	**10**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 18:31**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

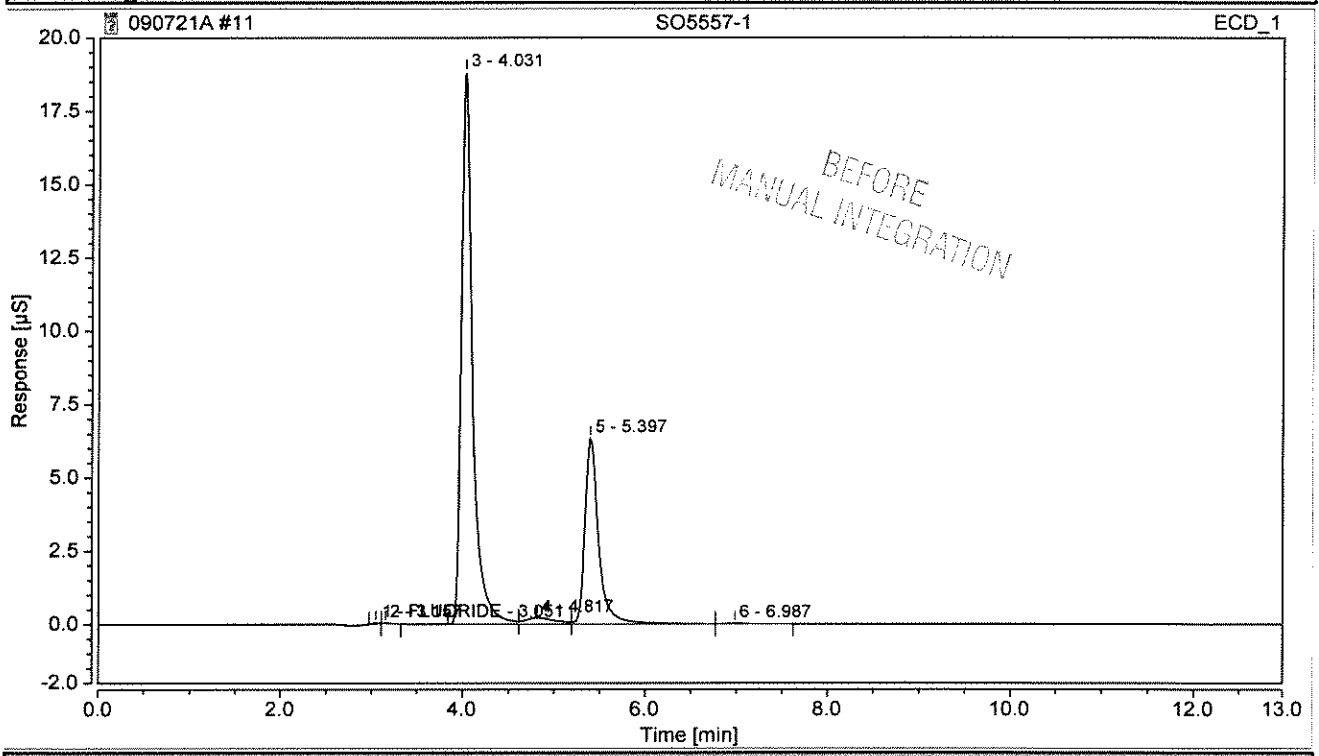
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.012	0.145	0.06	0.12	0.0250	n.a.
3	CHLORIDE	4.034	13.331	92.602	68.63	74.35	45.7398	n.a.
4	NITRITE	4.737	0.264	0.628	1.36	0.50	0.4296	n.a.
5	SULFATE	5.387	5.718	30.847	29.44	24.77	26.7868	n.a.
6	BROMIDE	6.124	0.073	0.208	0.38	0.17	0.2985	n.a.
7	NITRATE	6.984	0.020	0.045	0.10	0.04	0.0555	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**19.417**	**124.475**	**99.97**	**99.94**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5557-1**	*Run Time (min):*	**12.98**
Vial Number:	**11**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**5.0**
Injection Date/Time:	**07/Sep/21 18:50**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

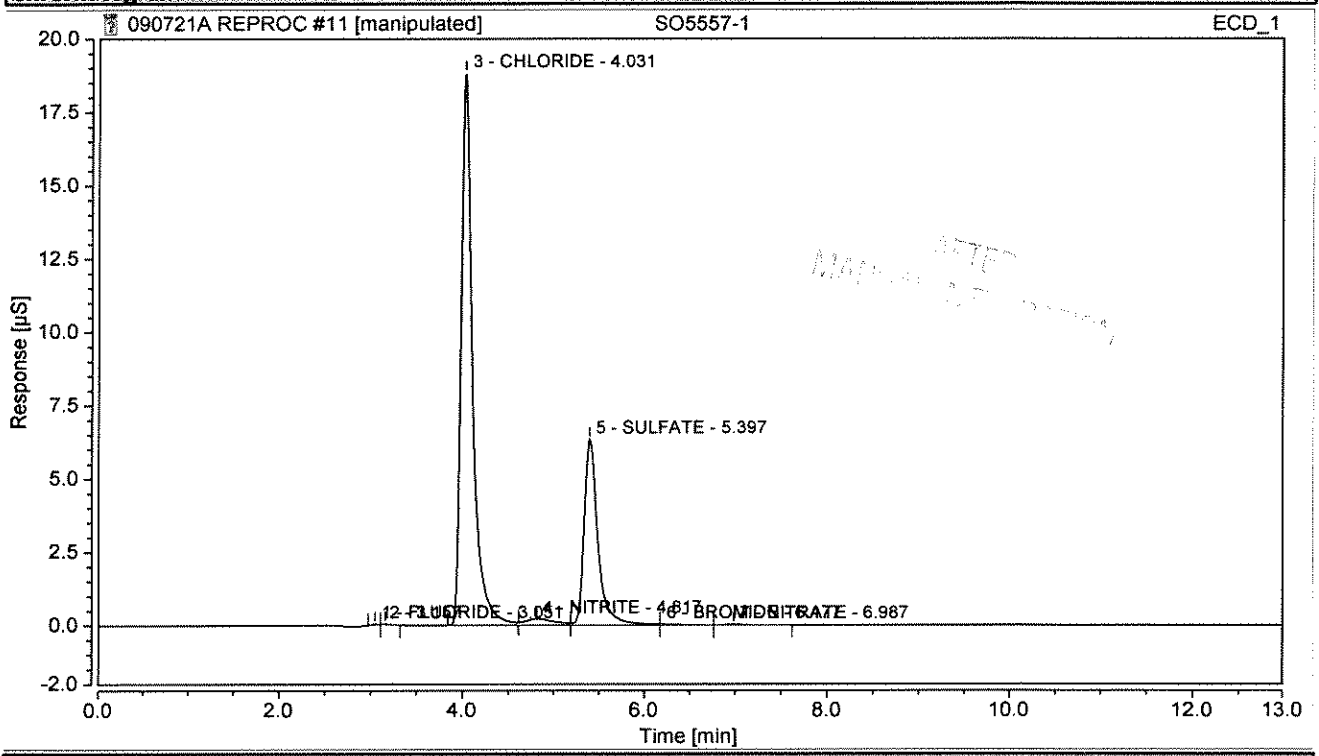
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.002	0.026	0.05	0.10	0.0215	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.002**	**0.026**	**0.05**	**0.10**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5557-1**	*Run Time (min):*	**12.98**
Vial Number:	**11**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**5.0**
Injection Date/Time:	**07/Sep/21 18:50**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

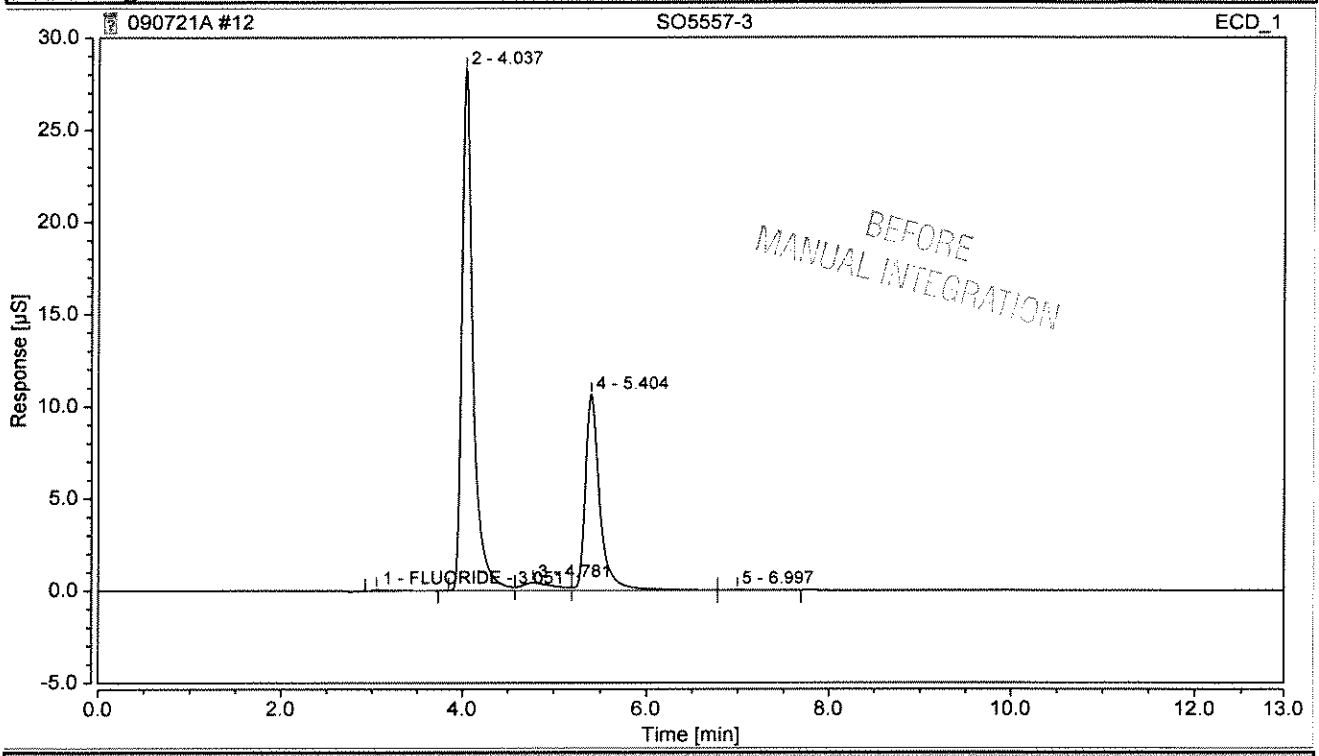
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.002	0.026	0.05	0.10	0.0215	n.a.
3	CHLORIDE	4.031	2.661	18.828	68.35	73.87	46.0023	n.a.
4	NITRITE	4.817	0.083	0.219	2.13	0.86	0.6758	n.a.
5	SULFATE	5.397	1.129	6.342	29.01	24.88	26.4463	n.a.
6	BROMIDE	6.177	0.010	0.035	0.25	0.14	0.2542	n.a.
7	NITRATE	6.987	0.007	0.026	0.17	0.10	0.1882	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**3.891**	**25.475**	**99.97**	**99.95**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5557-3**	*Run Time (min):*	**12.98**
Vial Number:	**12**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 19:08**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

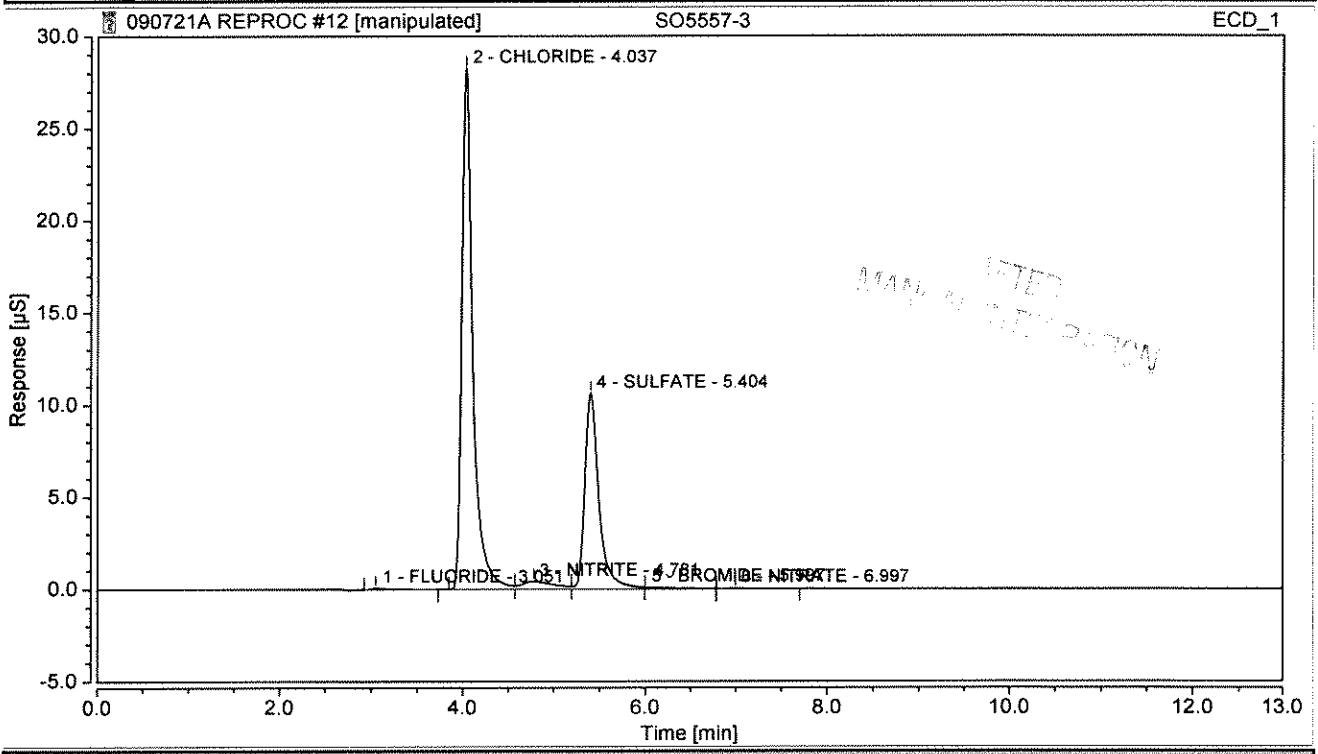
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.019	0.071	0.30	0.18	0.0790	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.019**	**0.071**	**0.30**	**0.18**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5557-3**	*Run Time (min):*	**12.98**
Vial Number:	**12**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 19:08**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

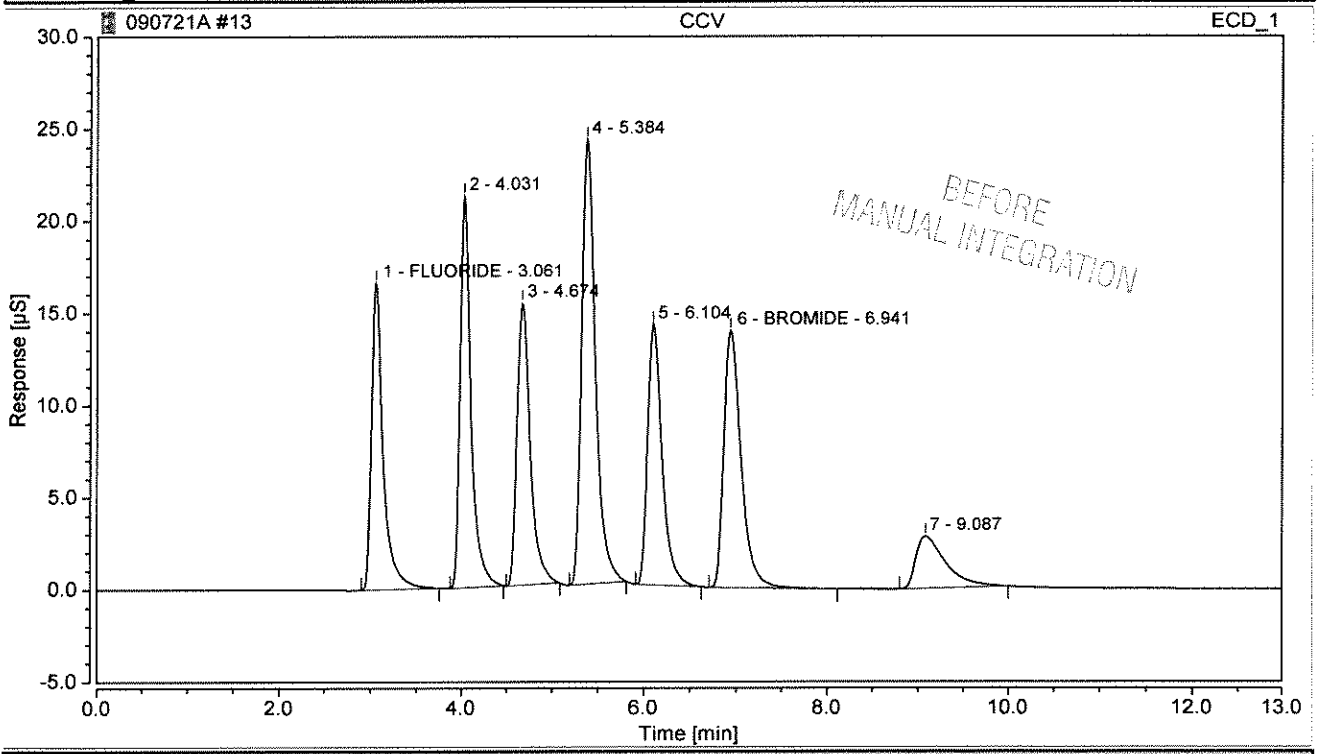
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.019	0.071	0.30	0.18	0.0790	n.a.
2	CHLORIDE	4.037	4.002	28.242	65.28	71.59	27.5865	n.a.
3	NITRITE	4.781	0.170	0.409	2.78	1.04	0.5547	n.a.
4	SULFATE	5.404	1.902	10.612	31.03	26.90	17.8259	n.a.
5	BROMIDE	5.997	0.029	0.089	0.48	0.23	0.2555	n.a.
6	NITRATE	6.997	0.008	0.027	0.13	0.07	0.0794	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.131**	**39.449**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**13**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 19:27**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

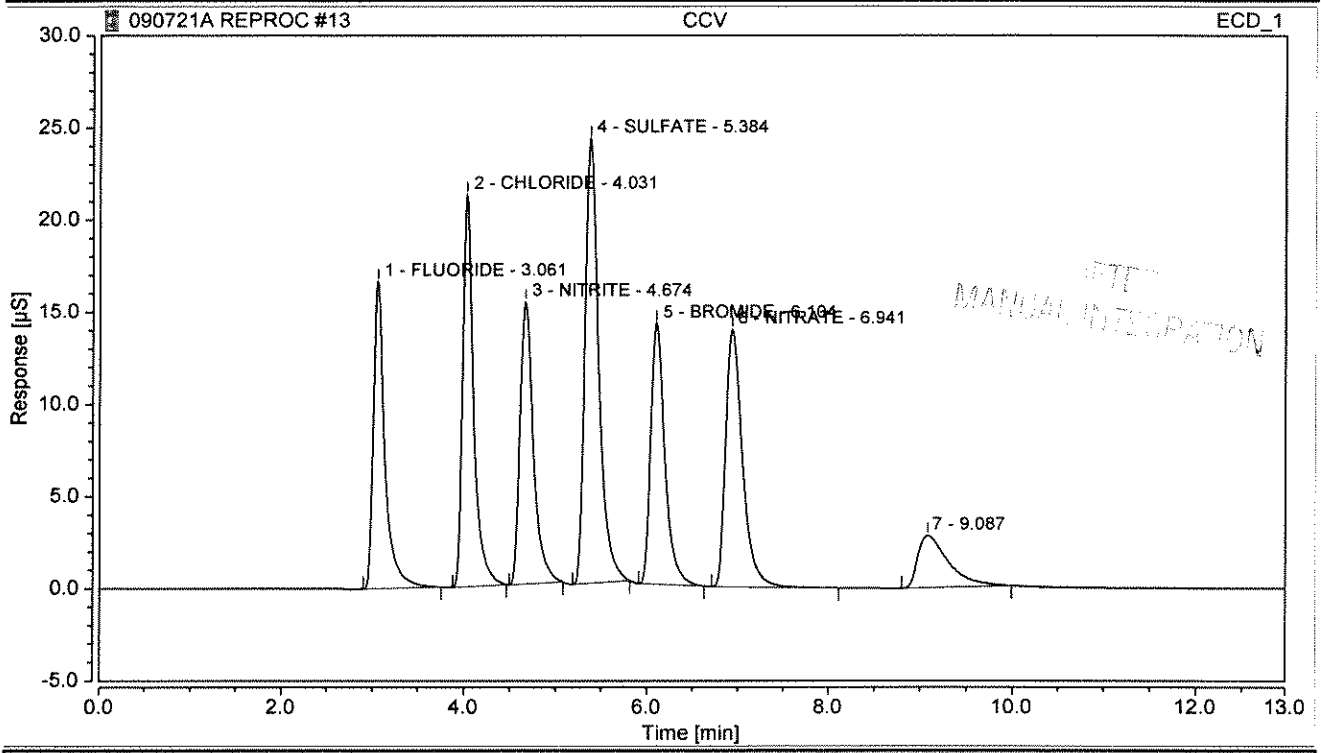
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	2.469	16.651	13.10	15.37	5.2315	4.6306
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.941	3.006	13.958	15.94	12.89	20.0667	0.3333
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.475**	**30.609**	**29.04**	**28.26**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**13**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 19:27**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

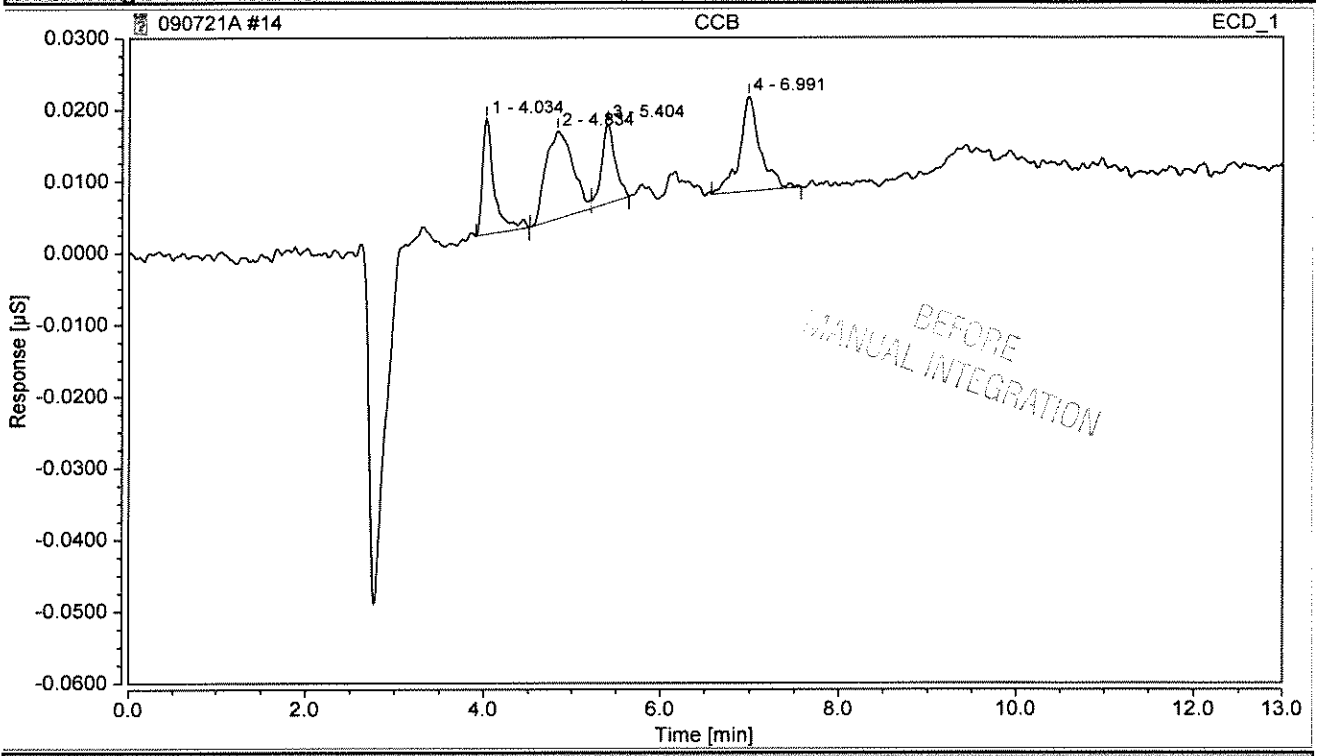
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	2.469	16.651	13.10	15.37	5.2315	4.6306
2	CHLORIDE	4.031	2.933	21.271	15.56	19.64	10.1334	1.3343
3	NITRITE	4.674	2.574	15.318	13.65	14.14	4.1939	4.8480
4	SULFATE	5.384	4.222	24.137	22.39	22.28	19.7799	-1.1003
5	BROMIDE	6.104	2.570	14.151	13.63	13.07	20.3433	1.7167
6	NITRATE	6.941	3.006	13.958	15.94	12.89	4.0246	0.6140
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**17.775**	**105.486**	**94.28**	**97.39**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.99**
Vial Number:	**14**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 19:46**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

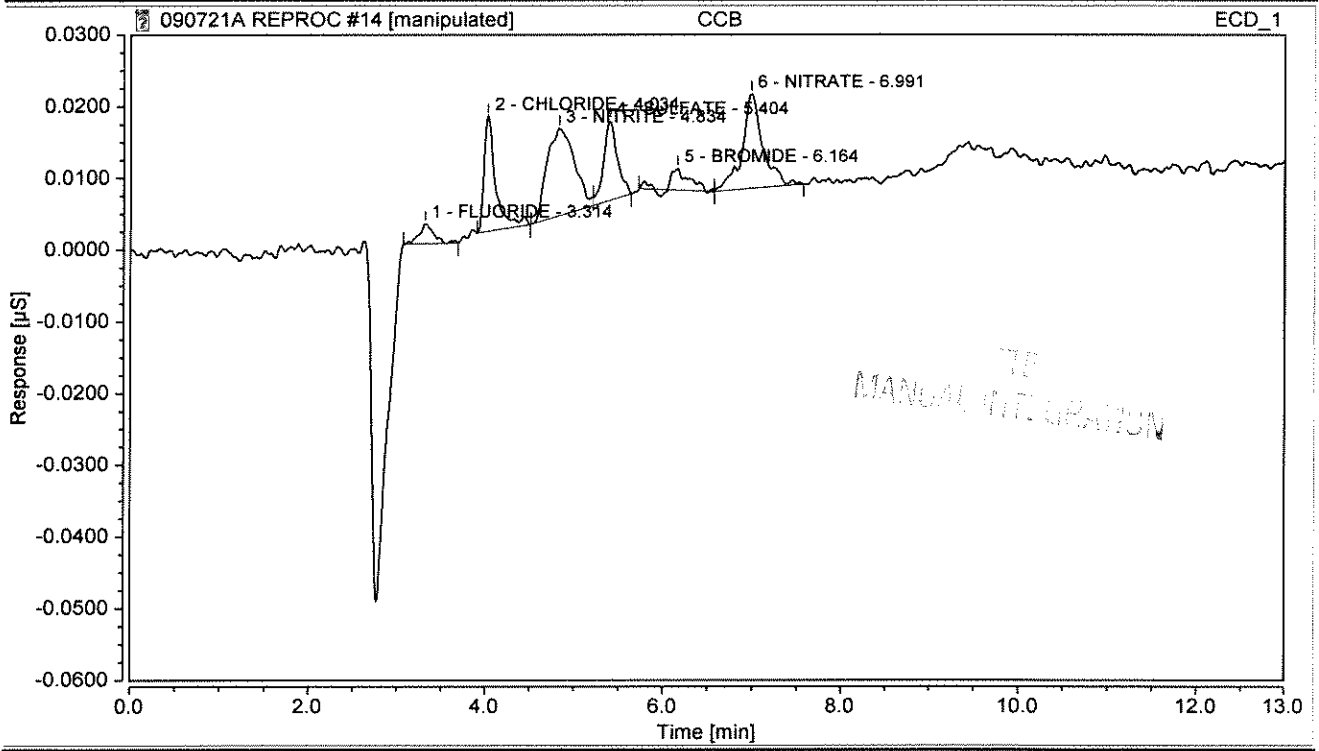
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.99**
Vial Number:	**14**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 19:46**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

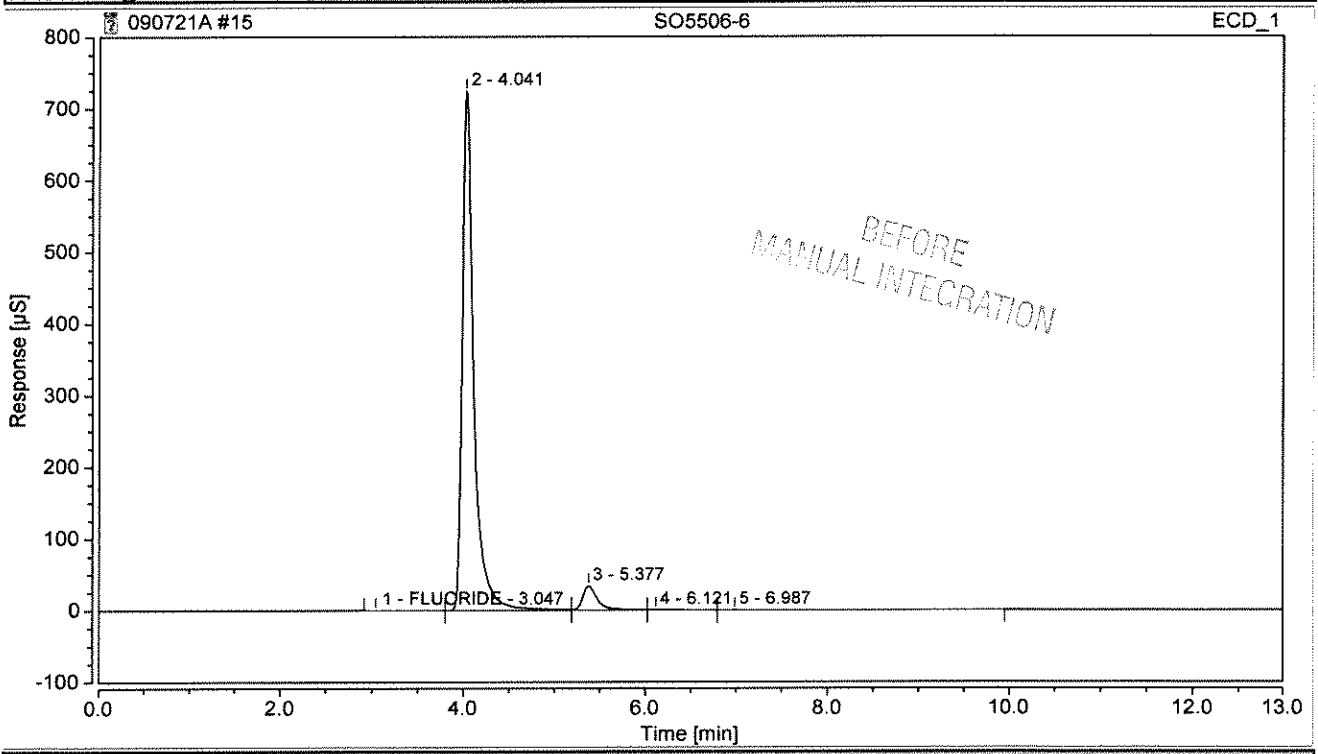
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.314	0.001	0.003	3.99	4.88	0.0012	n.a.
2	CHLORIDE	4.034	0.002	0.016	18.06	27.45	0.0984	n.a.
3	NITRITE	4.834	0.004	0.012	31.95	20.85	0.0071	n.a.
4	SULFATE	5.404	0.002	0.011	14.65	19.02	0.0094	n.a.
5	BROMIDE	6.164	0.001	0.003	5.23	5.25	0.0044	n.a.
6	NITRATE	6.991	0.004	0.013	26.11	22.55	0.0334	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.014**	**0.059**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5506-6**	*Run Time (min):*	**12.98**
Vial Number:	**15**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 20:05**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

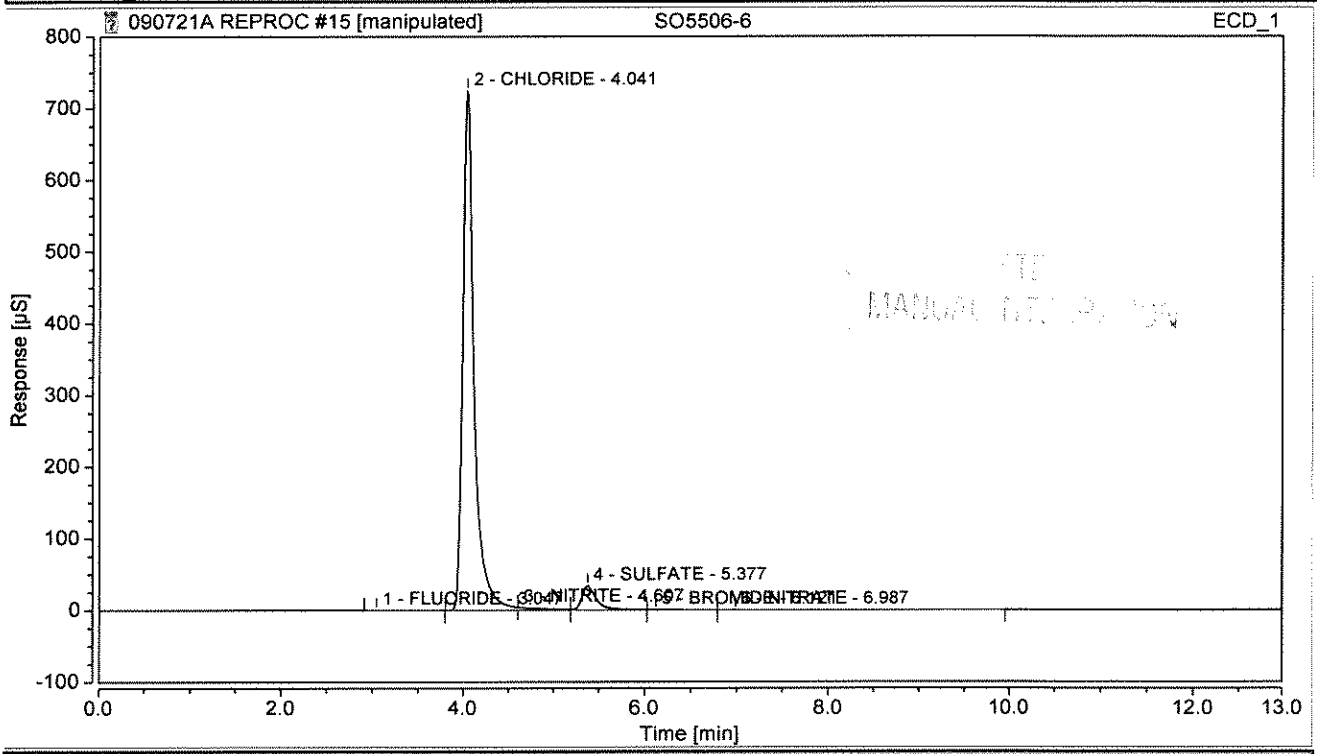
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.034	0.136	0.03	0.02	0.0718	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.034**	**0.136**	**0.03**	**0.02**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5506-6**	*Run Time (min):*	**12.98**
Vial Number:	**15**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 20:05**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

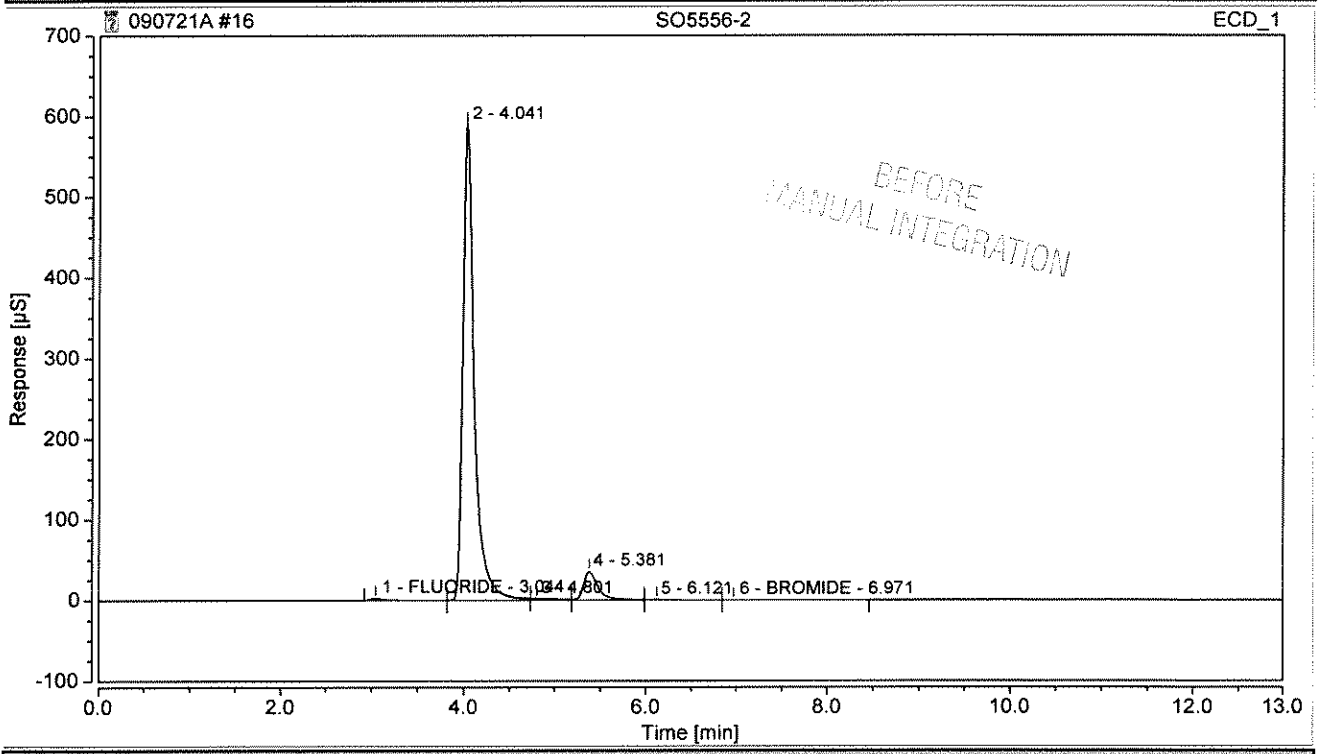
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.034	0.136	0.03	0.02	0.0718	n.a.
2	CHLORIDE	4.041	105.748	724.532	93.25	95.00	362.2040	n.a.
3	NITRITE	4.607	1.068	3.801	0.94	0.50	1.7402	n.a.
4	SULFATE	5.377	6.357	33.775	5.61	4.43	29.7817	n.a.
5	BROMIDE	6.121	0.125	0.302	0.11	0.04	0.4345	n.a.
6	NITRATE	6.987	0.076	0.133	0.07	0.02	0.1297	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**113.407**	**762.680**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5556-2**	*Run Time (min):*	**12.99**
Vial Number:	**16**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 20:24**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

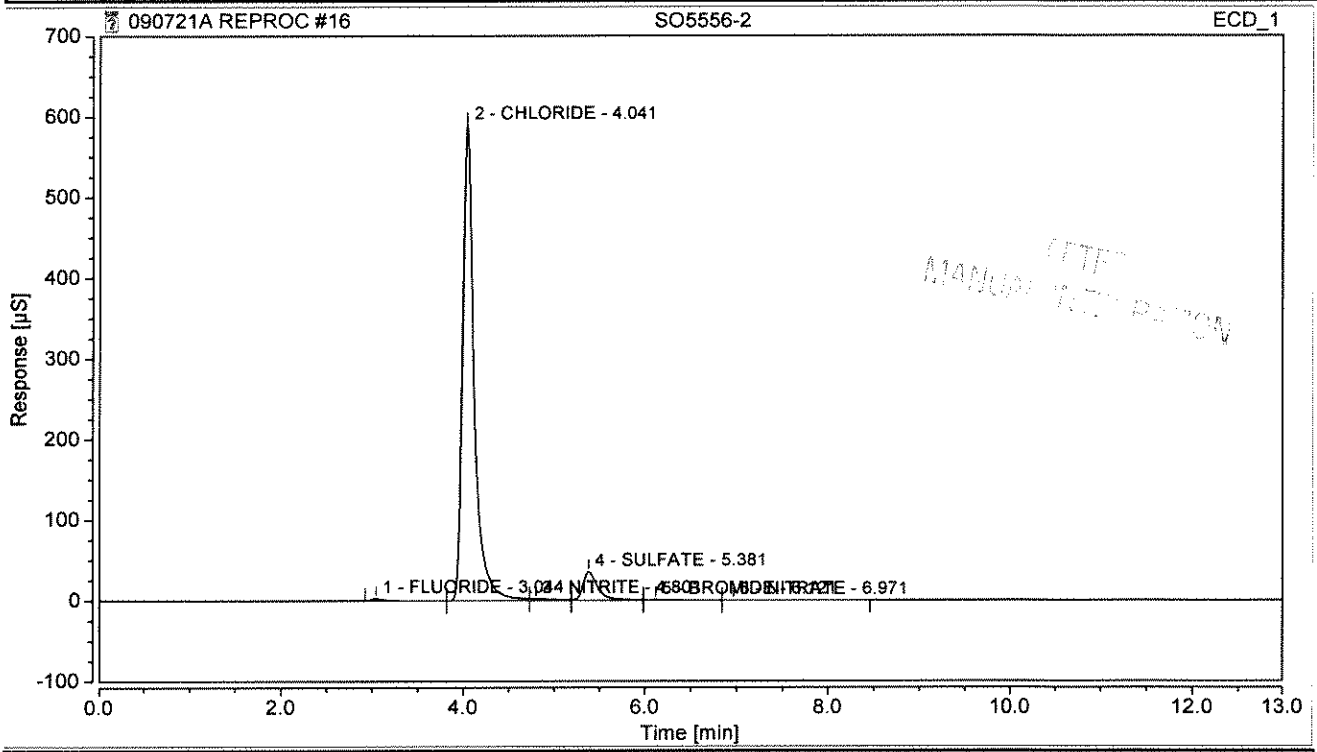
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.044	0.346	2.469	0.37	0.39	0.7330	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.971	0.027	0.048	0.03	0.01	0.0693	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.373**	**2.517**	**0.40**	**0.40**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5556-2**	*Run Time (min):*	**12.99**
Vial Number:	**16**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 20:24**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

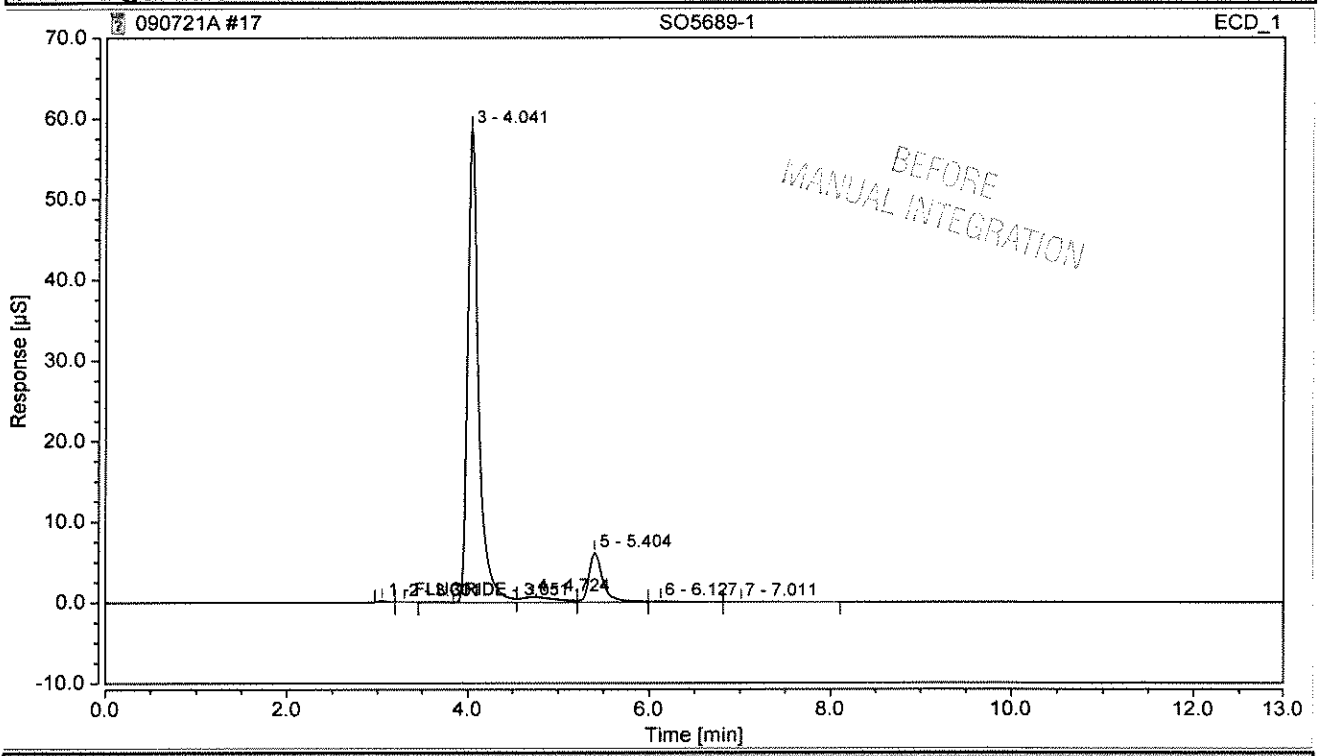
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.044	0.346	2.469	0.37	0.39	0.7330	n.a.
2	CHLORIDE	4.041	85.928	589.835	91.82	93.61	294.3357	n.a.
3	NITRITE	4.801	0.560	1.789	0.60	0.28	0.9116	n.a.
4	SULFATE	5.381	6.561	35.390	7.01	5.62	30.7370	n.a.
5	BROMIDE	6.121	0.165	0.543	0.18	0.09	0.7813	n.a.
6	NITRATE	6.971	0.027	0.048	0.03	0.01	0.0642	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**93.586**	**630.074**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-1**	*Run Time (min):*	**12.99**
Vial Number:	**17**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 20:42**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

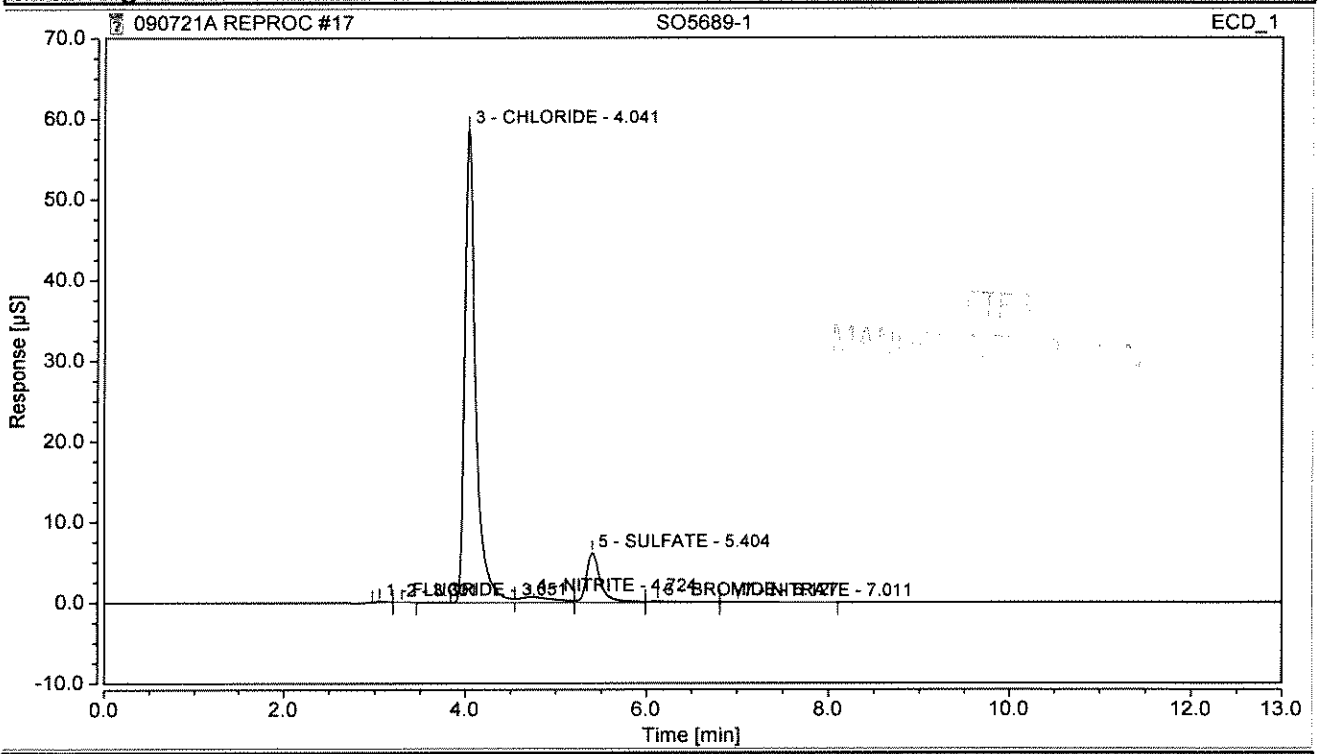
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.015	0.139	0.15	0.21	0.0312	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.015**	**0.139**	**0.15**	**0.21**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-1**	*Run Time (min):*	**12.99**
Vial Number:	**17**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 20:42**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

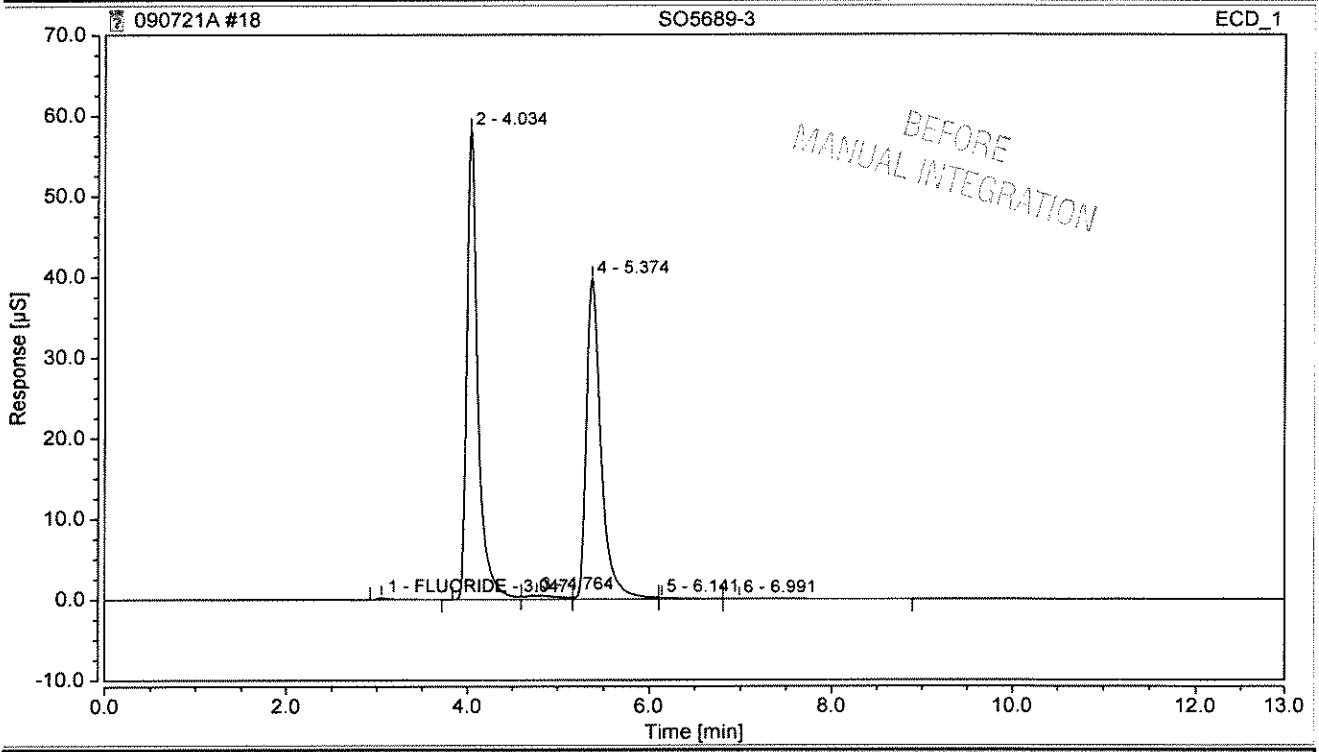
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.015	0.139	0.15	0.21	0.0312	n.a.
3	CHLORIDE	4.041	8.382	58.714	85.21	89.24	28.7913	n.a.
4	NITRITE	4.724	0.297	0.663	3.02	1.01	0.4841	n.a.
5	SULFATE	5.404	1.095	6.136	11.13	9.33	5.1282	n.a.
6	BROMIDE	6.127	0.038	0.108	0.39	0.16	0.1553	n.a.
7	NITRATE	7.011	0.010	0.022	0.10	0.03	0.0417	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**9.836**	**65.783**	**99.99**	**99.98**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-3**	*Run Time (min):*	**12.98**
Vial Number:	**18**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:01**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

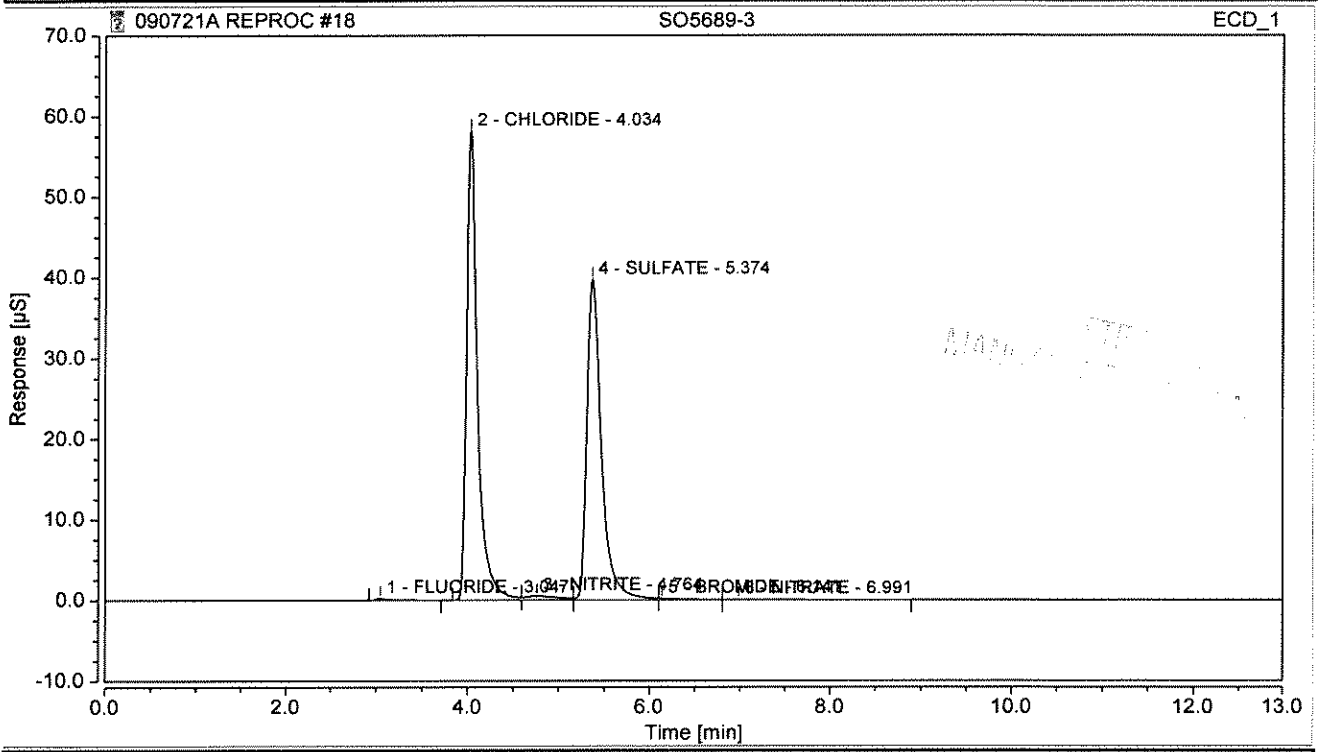
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.041	0.218	0.26	0.22	0.0872	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.041**	**0.218**	**0.26**	**0.22**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-3**	*Run Time (min):*	**12.98**
Vial Number:	**18**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:01**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

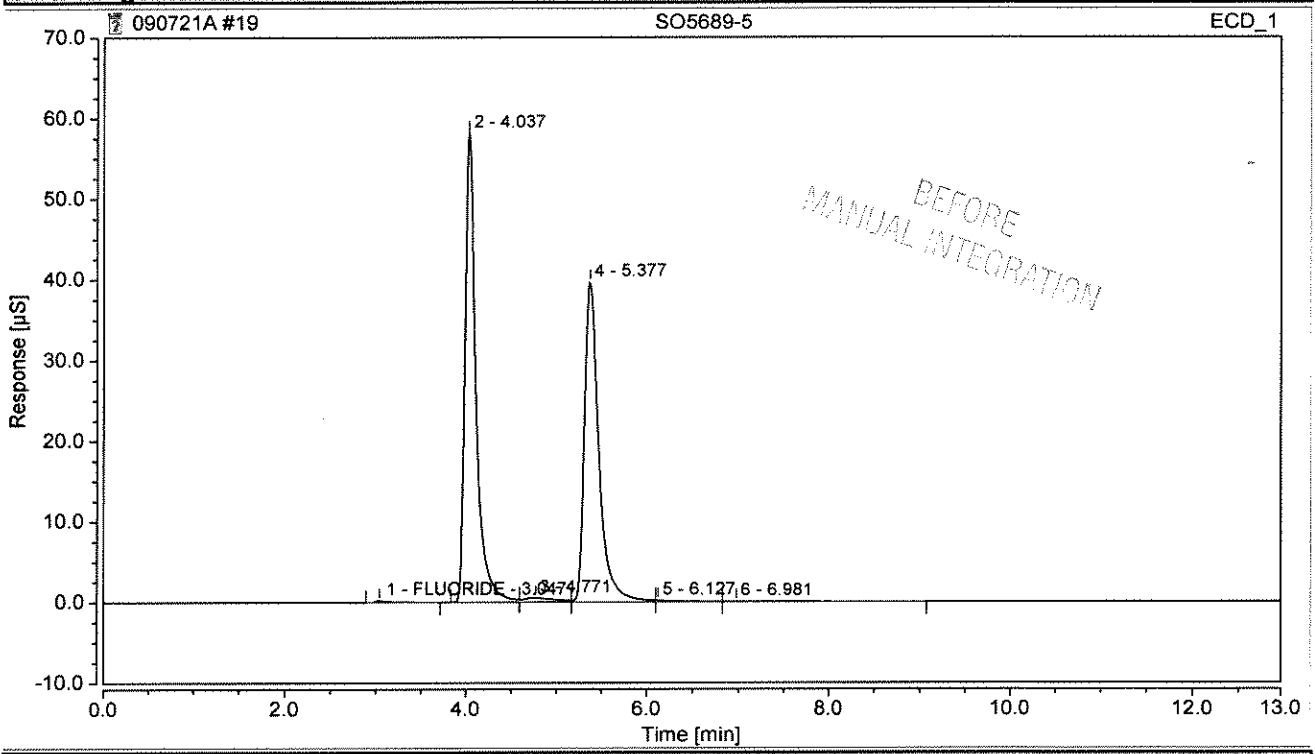
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.041	0.218	0.26	0.22	0.0872	n.a.
2	CHLORIDE	4.034	8.251	58.121	51.80	58.87	28.3455	n.a.
3	NITRITE	4.764	0.197	0.483	1.24	0.49	0.3211	n.a.
4	SULFATE	5.374	7.364	39.710	46.23	40.22	34.4998	n.a.
5	BROMIDE	6.141	0.052	0.161	0.33	0.16	0.2322	n.a.
6	NITRATE	6.991	0.024	0.042	0.15	0.04	0.0605	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**15.929**	**98.736**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-5**	*Run Time (min):*	**12.97**
Vial Number:	**19**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:20**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

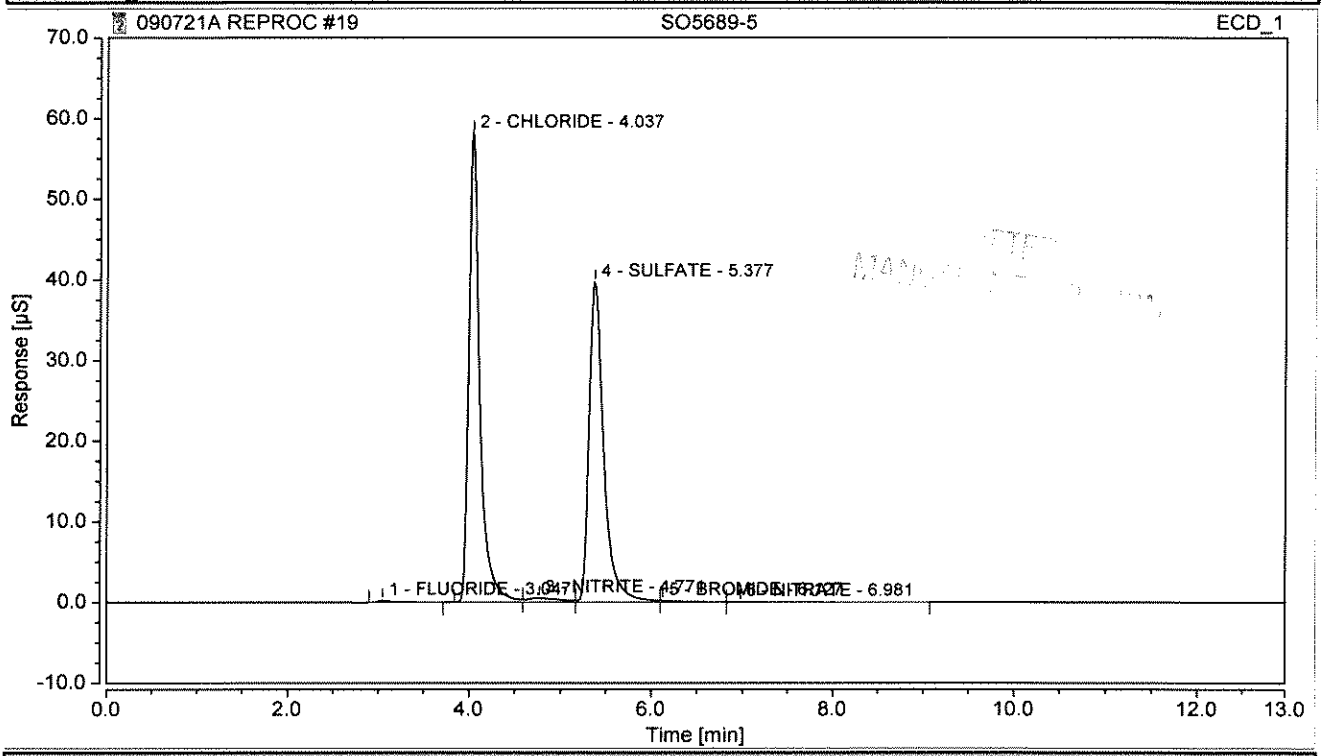
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.042	0.221	0.26	0.22	0.0884	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.042**	**0.221**	**0.26**	**0.22**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-5**	*Run Time (min):*	**12.97**
Vial Number:	**19**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:20**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

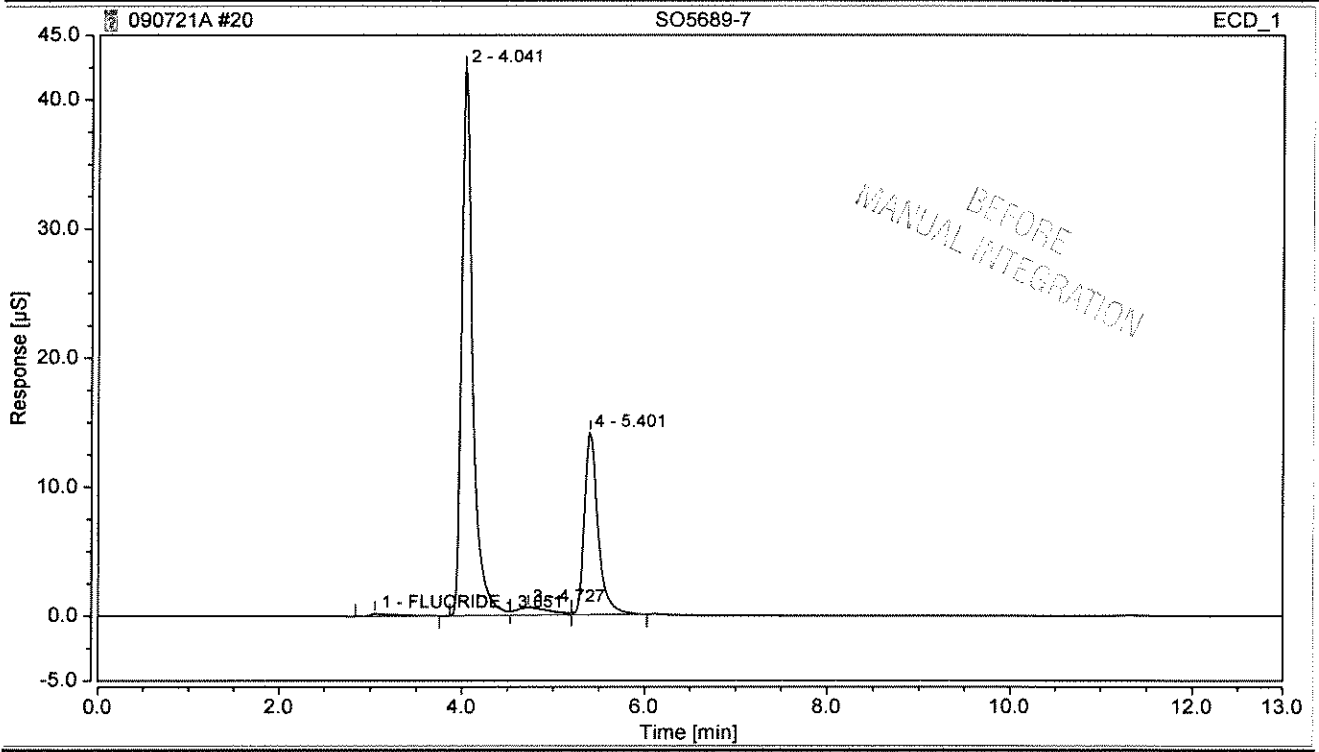
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.042	0.221	0.26	0.22	0.0884	n.a.
2	CHLORIDE	4.037	8.241	58.147	51.75	58.90	28.3115	n.a.
3	NITRITE	4.771	0.198	0.486	1.25	0.49	0.3230	n.a.
4	SULFATE	5.377	7.362	39.661	46.23	40.17	34.4927	n.a.
5	BROMIDE	6.127	0.056	0.172	0.35	0.17	0.2468	n.a.
6	NITRATE	6.981	0.024	0.038	0.15	0.04	0.0611	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**15.925**	**98.724**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-7**	*Run Time (min):*	**12.98**
Vial Number:	**20**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:39**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

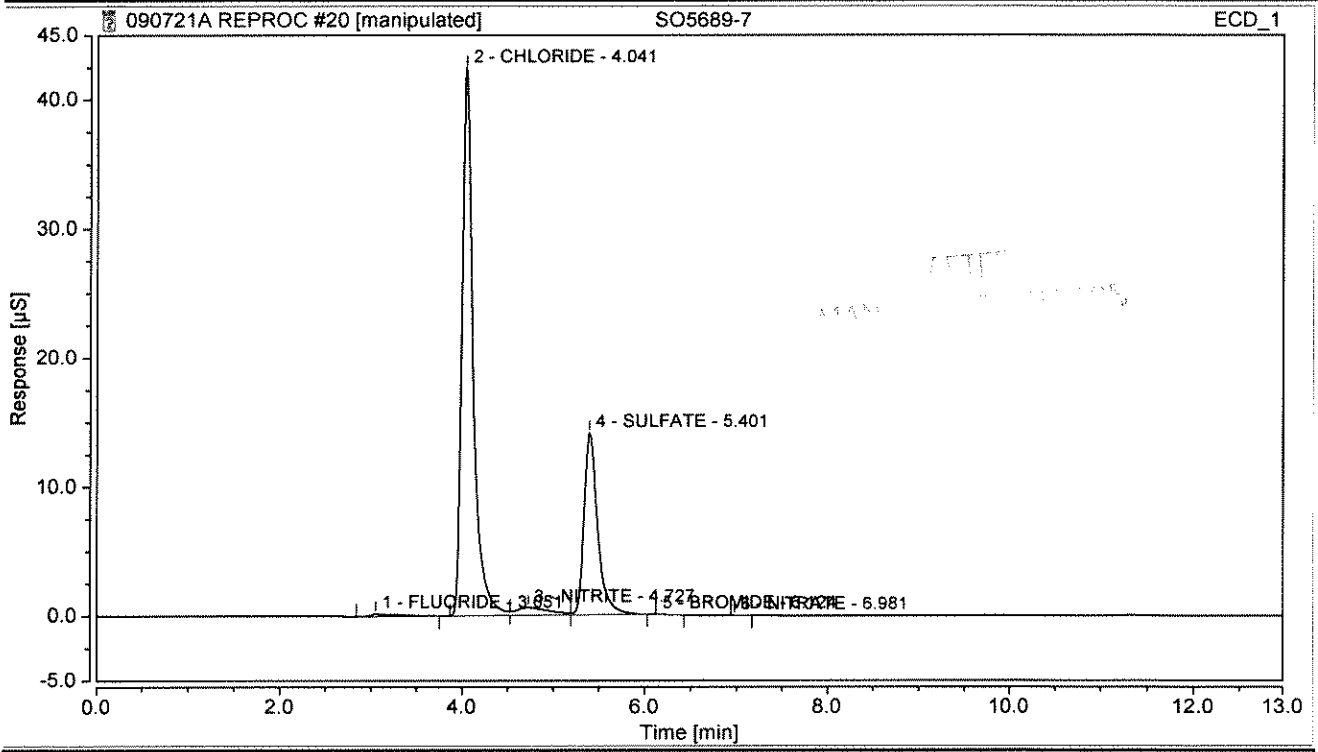
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.064	0.203	0.73	0.35	0.1353	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.064**	**0.203**	**0.73**	**0.35**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-7**	*Run Time (min):*	**12.98**
Vial Number:	**20**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:39**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

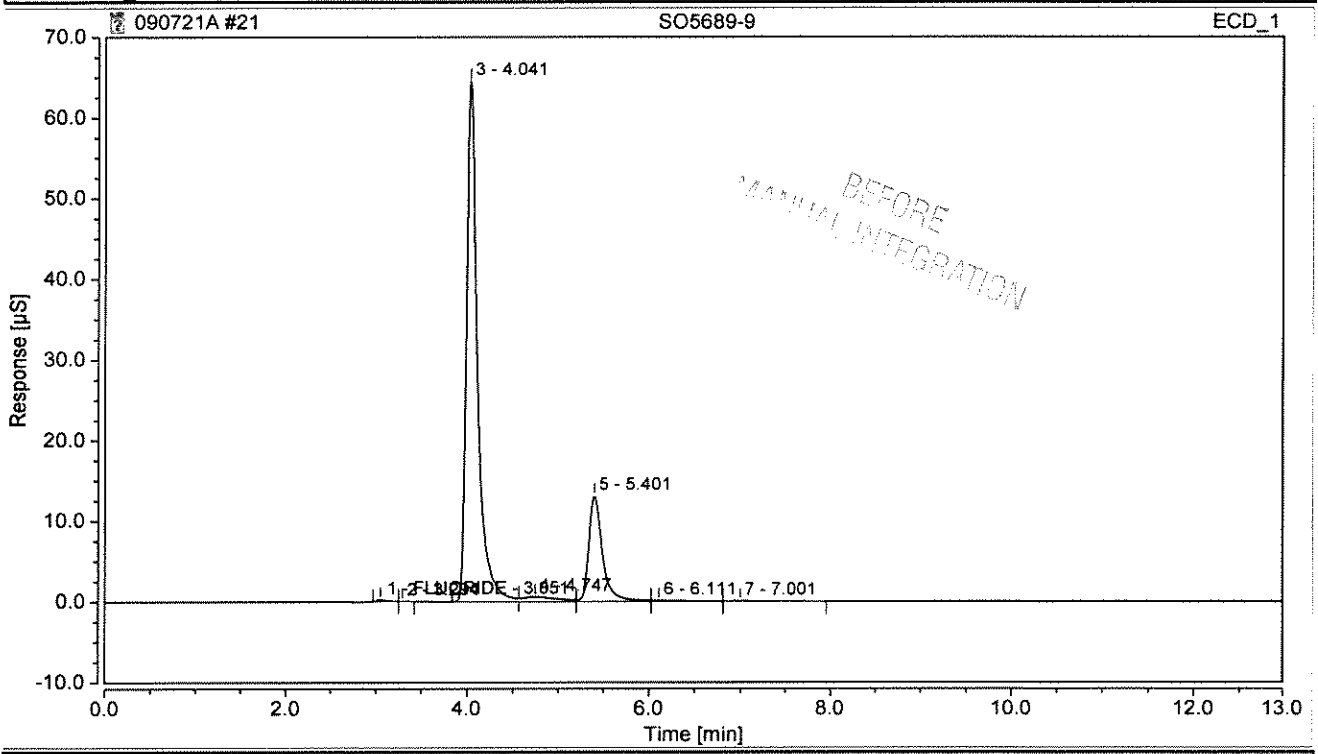
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.064	0.203	0.73	0.35	0.1353	n.a.
2	CHLORIDE	4.041	6.029	42.416	68.54	74.01	20.7343	n.a.
3	NITRITE	4.727	0.250	0.586	2.85	1.02	0.4080	n.a.
4	SULFATE	5.401	2.450	14.104	27.85	24.61	11.4775	n.a.
5	BROMIDE	6.124	0.002	0.000	0.02	0.00	0.0000	n.a.
6	NITRATE	6.981	0.001	0.005	0.01	0.01	0.0298	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.796**	**57.314**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-9**	*Run Time (min):*	**12.98**
Vial Number:	**21**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:58**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

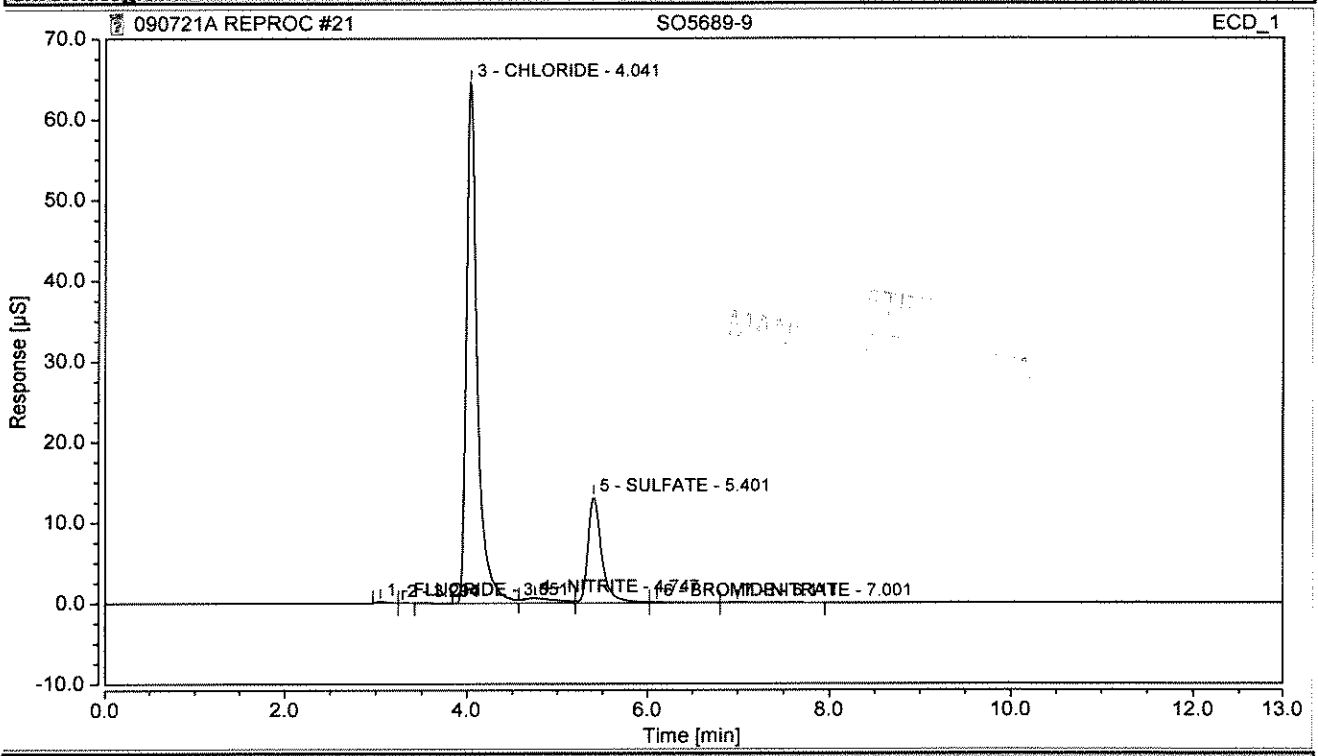
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.024	0.208	0.21	0.26	0.0516	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.024**	**0.208**	**0.21**	**0.26**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-9**	*Run Time (min):*	**12.98**
Vial Number:	**21**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:58**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

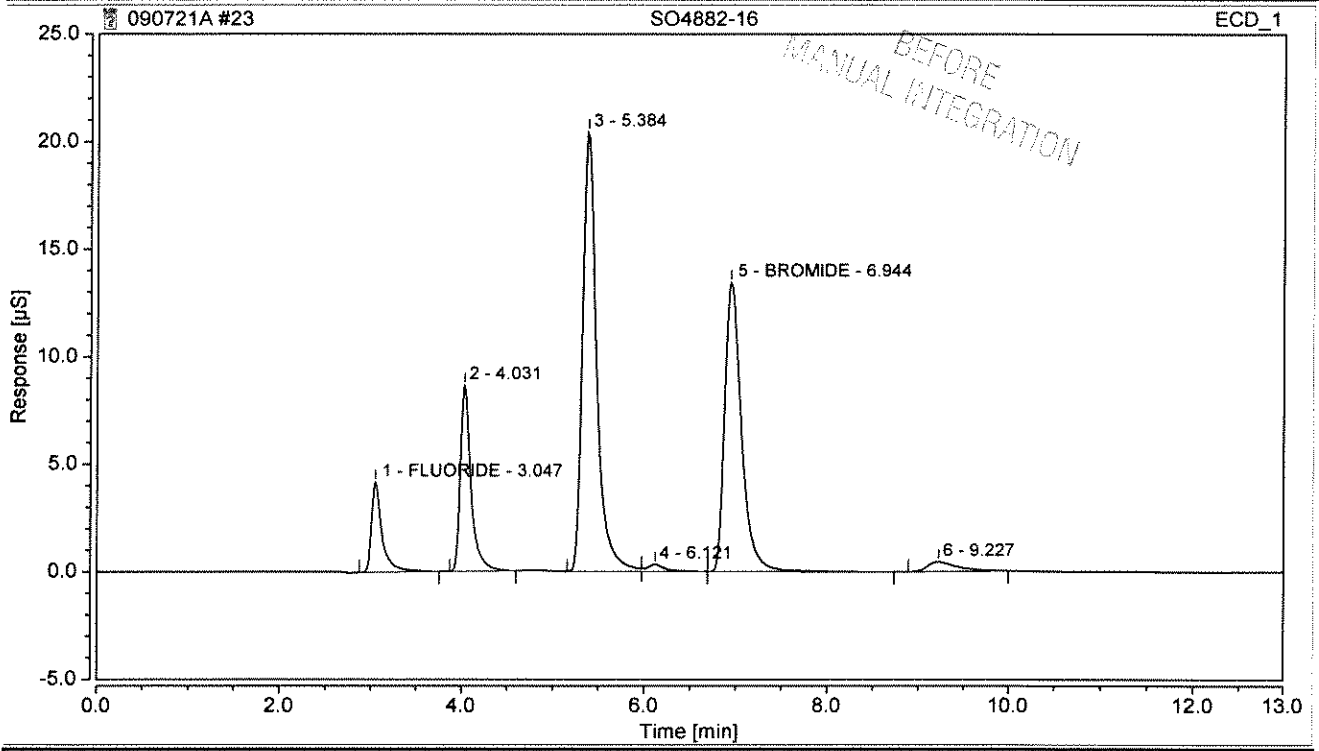
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.024	0.208	0.21	0.26	0.0516	n.a.
3	CHLORIDE	4.041	9.123	64.546	77.38	82.06	31.3293	n.a.
4	NITRITE	4.747	0.255	0.592	2.17	0.75	0.4162	n.a.
5	SULFATE	5.401	2.325	13.115	19.72	16.67	10.8944	n.a.
6	BROMIDE	6.111	0.039	0.099	0.33	0.13	0.1430	n.a.
7	NITRATE	7.001	0.022	0.078	0.18	0.10	0.0574	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.788**	**78.637**	**99.99**	**99.98**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-16**	*Run Time (min):*	**12.99**
Vial Number:	**23**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**07/Sep/21 22:35**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

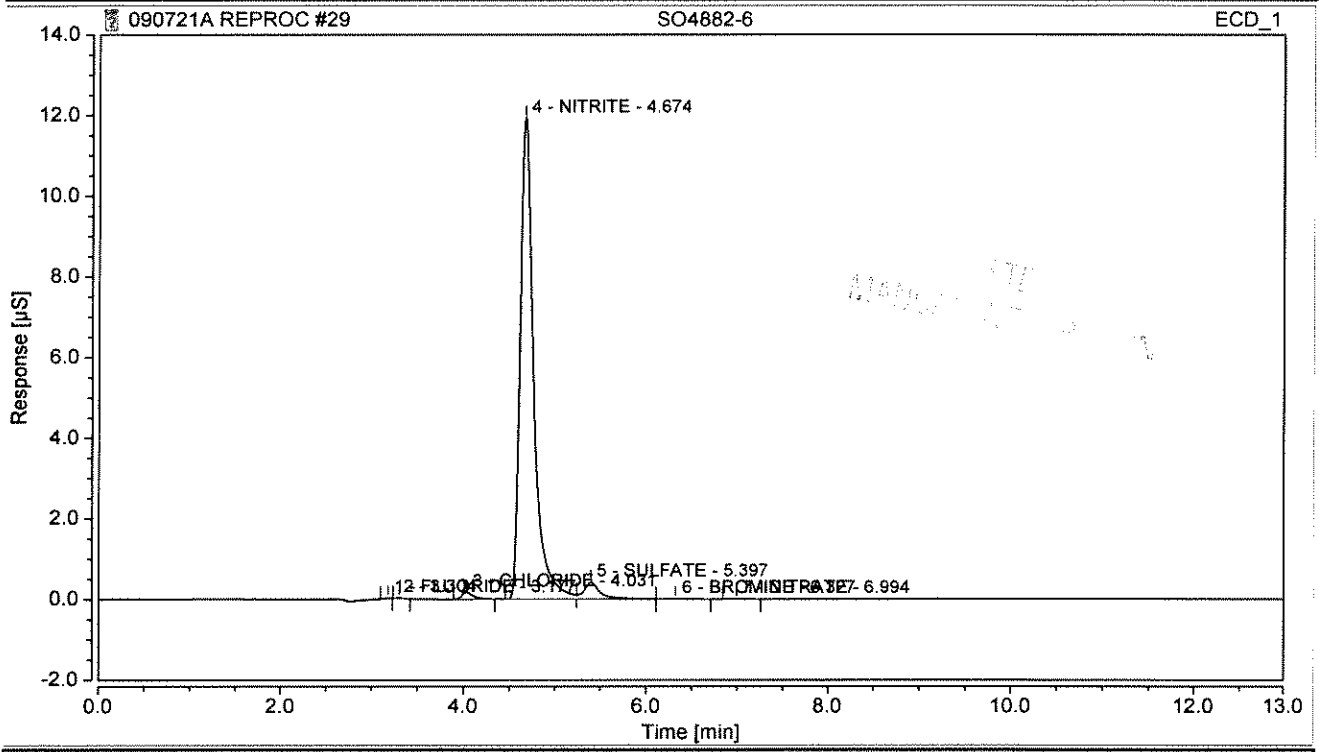
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.577	4.190	6.70	8.82	12.2186	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	BROMIDE	6.944	2.924	13.445	33.96	28.30	193.2900	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**3.501**	**17.635**	**40.66**	**37.11**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-6**	*Run Time (min):*	**12.99**
Vial Number:	**29**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**08/Sep/21 00:28**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

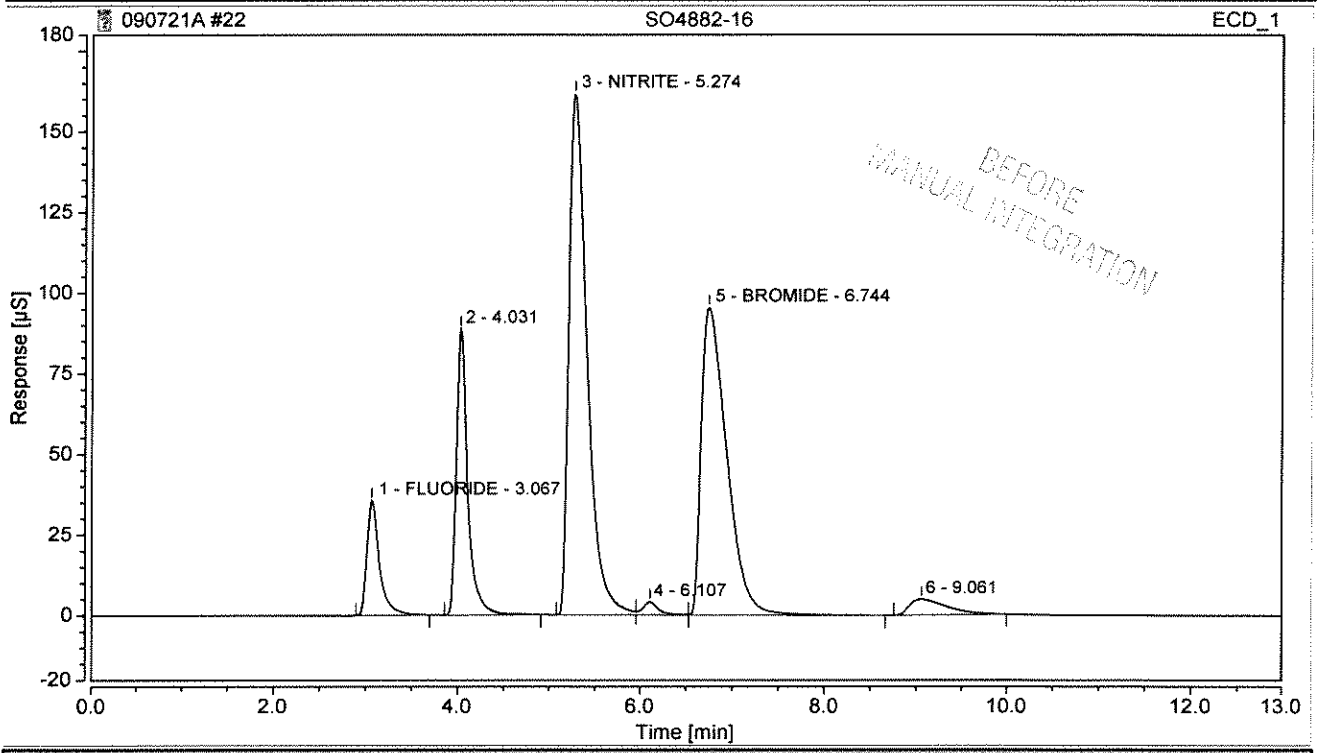
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.177	0.001	0.013	0.05	0.10	0.0227	n.a.
3	CHLORIDE	4.031	0.024	0.174	1.11	1.38	1.7187	n.a.
4	NITRITE	4.674	2.040	11.925	94.53	94.93	33.2412	n.a.
5	SULFATE	5.397	0.088	0.416	4.07	3.31	4.1143	n.a.
6	BROMIDE	6.327	0.002	0.008	0.09	0.07	0.1187	n.a.
7	NITRATE	6.994	0.002	0.009	0.08	0.07	0.3091	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**2.157**	**12.544**	**99.93**	**99.86**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-16**	*Run Time (min):*	**12.98**
Vial Number:	**22**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 22:17**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

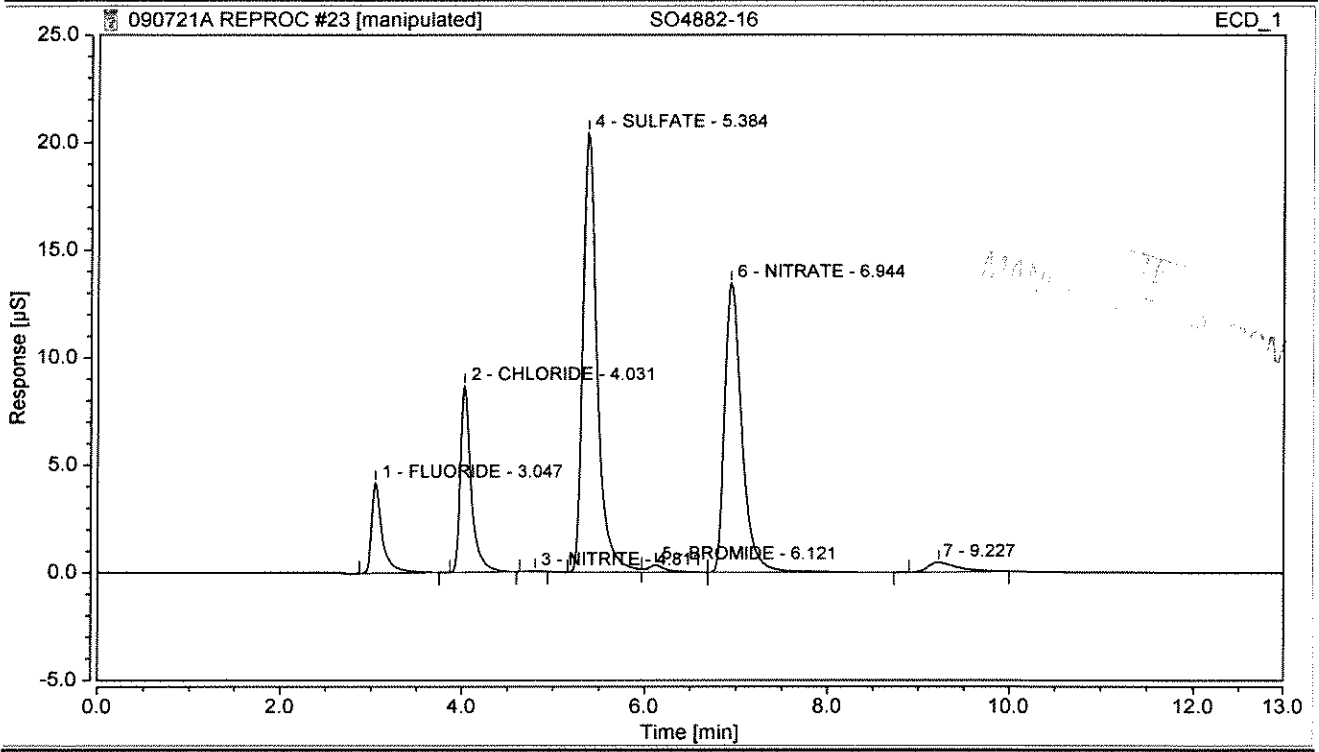
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.067	5.612	35.640	6.30	9.13	11.8905	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	NITRITE	5.274	37.236	161.612	41.81	41.40	60.6619	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	BROMIDE	6.744	30.453	95.366	34.19	24.43	137.0987	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**73.300**	**292.618**	**82.30**	**74.97**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-16**	*Run Time (min):*	**12.99**
Vial Number:	**23**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**07/Sep/21 22:35**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

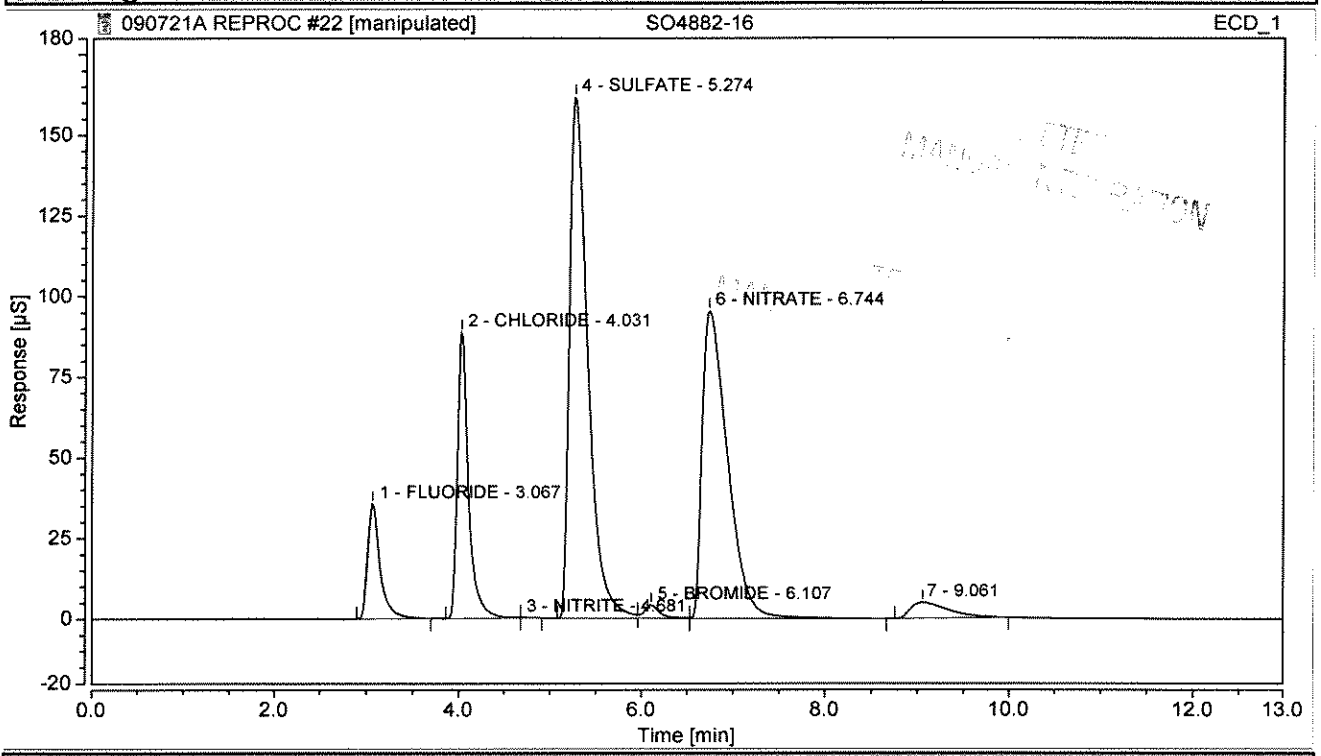
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.577	4.190	6.69	8.81	12.2186	n.a.
2	CHLORIDE	4.031	1.200	8.665	13.92	18.23	41.9750	n.a.
3	NITRITE	4.811	0.005	0.025	0.05	0.05	0.0735	n.a.
4	SULFATE	5.384	3.663	20.436	42.51	42.99	171.6054	n.a.
5	BROMIDE	6.121	0.076	0.336	0.88	0.71	4.8242	n.a.
6	NITRATE	6.944	2.924	13.445	33.94	28.28	39.1592	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.444**	**47.097**	**98.01**	**99.07**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-16**	*Run Time (min):*	**12.98**
Vial Number:	**22**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 22:17**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

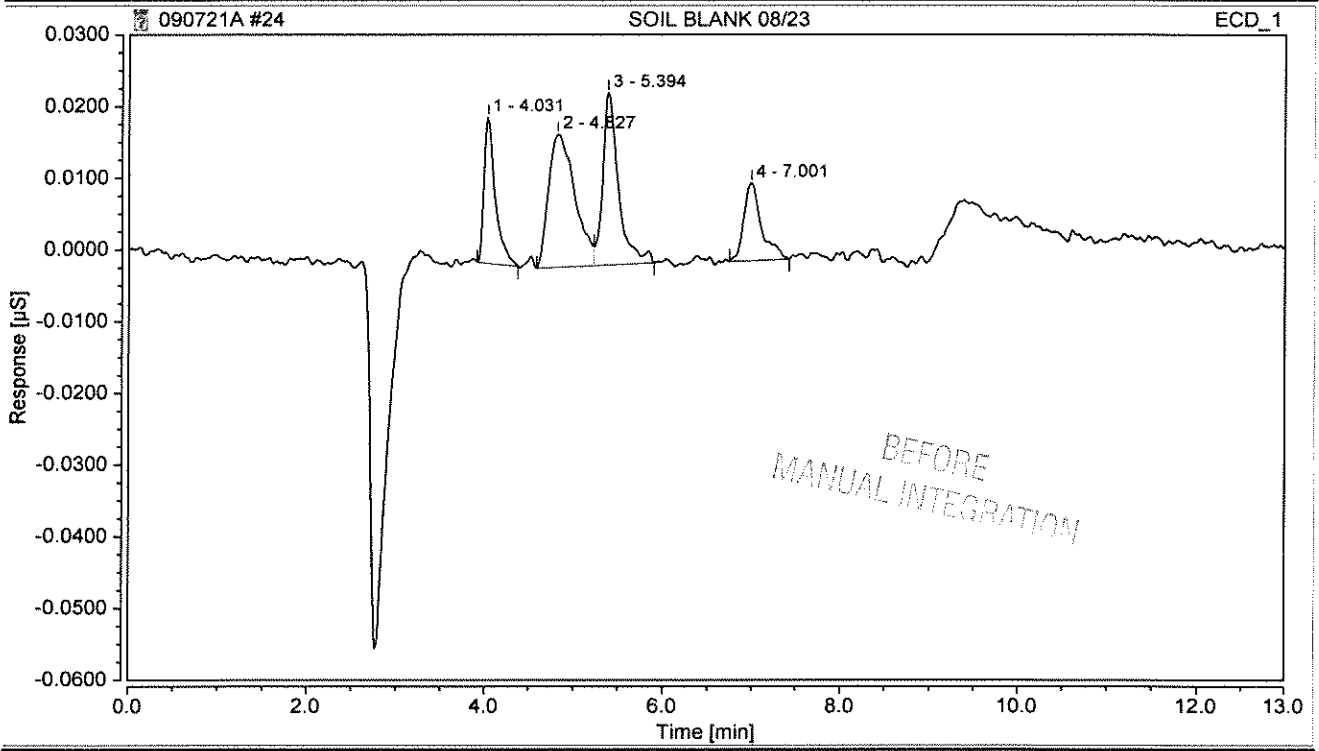
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %	
1	FLUORIDE	3.067	5.612	35.640	6.30	9.13	11.8905	n.a.	✗
2	CHLORIDE	4.031	12.594	88.730	14.14	22.72	43.2151	n.a.	✗
3	NITRITE	4.681	0.026	0.187	0.03	0.05	0.0417	n.a.	
4	SULFATE	5.274	37.236	161.612	41.81	41.38	174.4508	n.a.	✗
5	BROMIDE	6.107	0.820	4.111	0.92	1.05	5.9103	n.a.	✗
6	NITRATE	6.744	30.453	95.366	34.19	24.42	40.5090	n.a.	✗
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Total:			**86.739**	**385.646**	**97.39**	**98.75**			

Chromatogram and Results

Injection Details

Injection Name:	**SOIL BLANK 08/23**	*Run Time (min):*	**12.98**
Vial Number:	**24**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 22:54**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

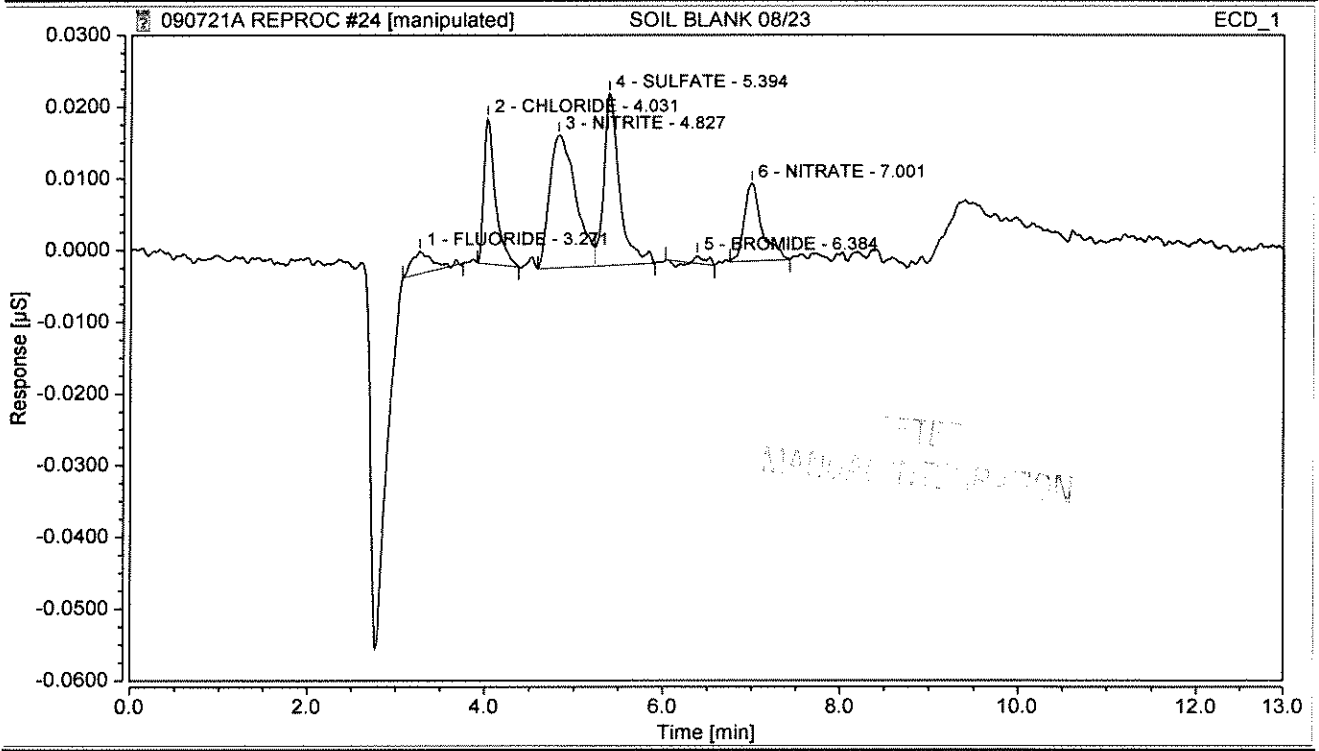
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SOIL BLANK 08/23**	*Run Time (min):*	**12.98**
Vial Number:	**24**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 22:54**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

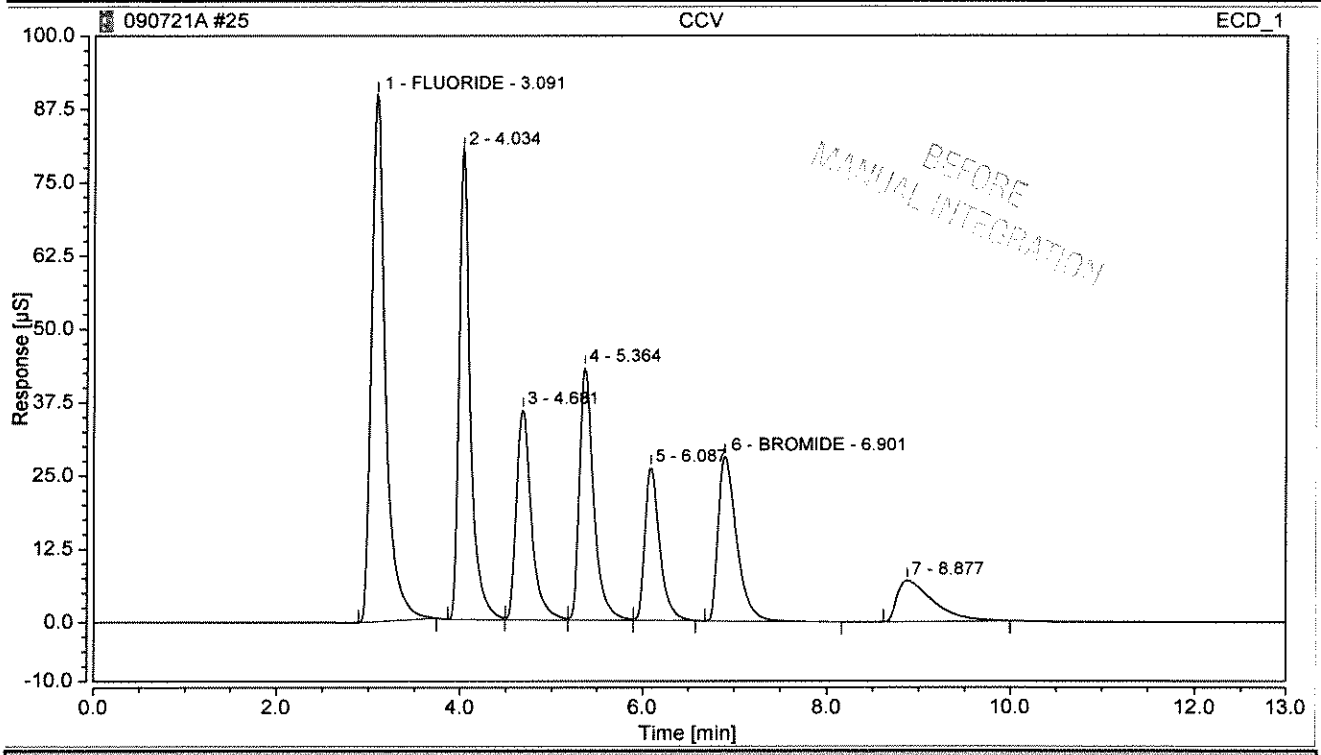
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.271	0.001	0.003	4.62	4.05	0.0017	n.a.
2	CHLORIDE	4.031	0.003	0.020	17.26	26.14	0.1004	n.a.
3	NITRITE	4.827	0.006	0.019	35.73	23.78	0.0103	n.a.
4	SULFATE	5.394	0.005	0.024	27.58	30.78	0.0229	n.a.
5	BROMIDE	6.384	0.000	0.001	0.48	1.36	0.0015	n.a.
6	NITRATE	7.001	0.003	0.011	14.33	13.89	0.0321	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.018**	**0.078**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**25**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 23:13**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

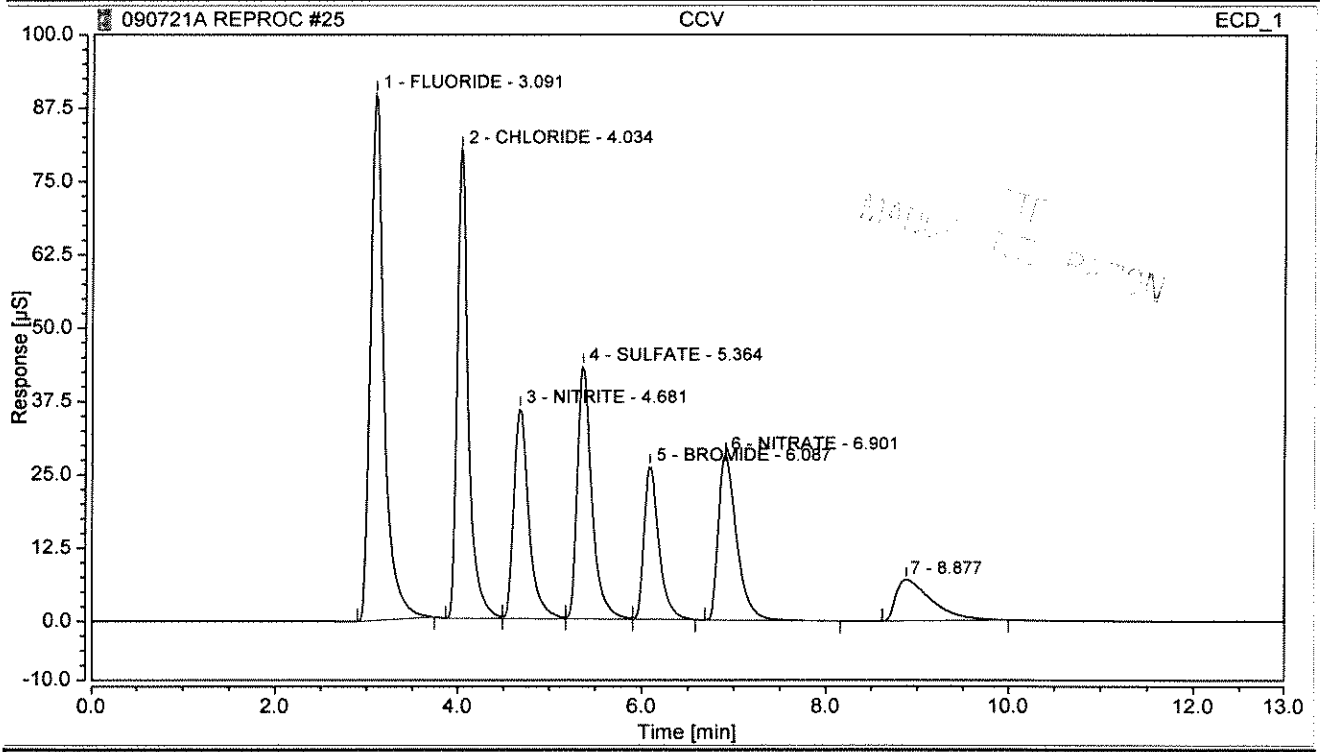
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.091	15.704	89.794	27.91	28.98	33.2753	565.5052
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.901	6.554	28.136	11.65	9.08	40.4488	102.2440
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**22.258**	**117.930**	**39.55**	**38.06**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**25**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 23:13**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

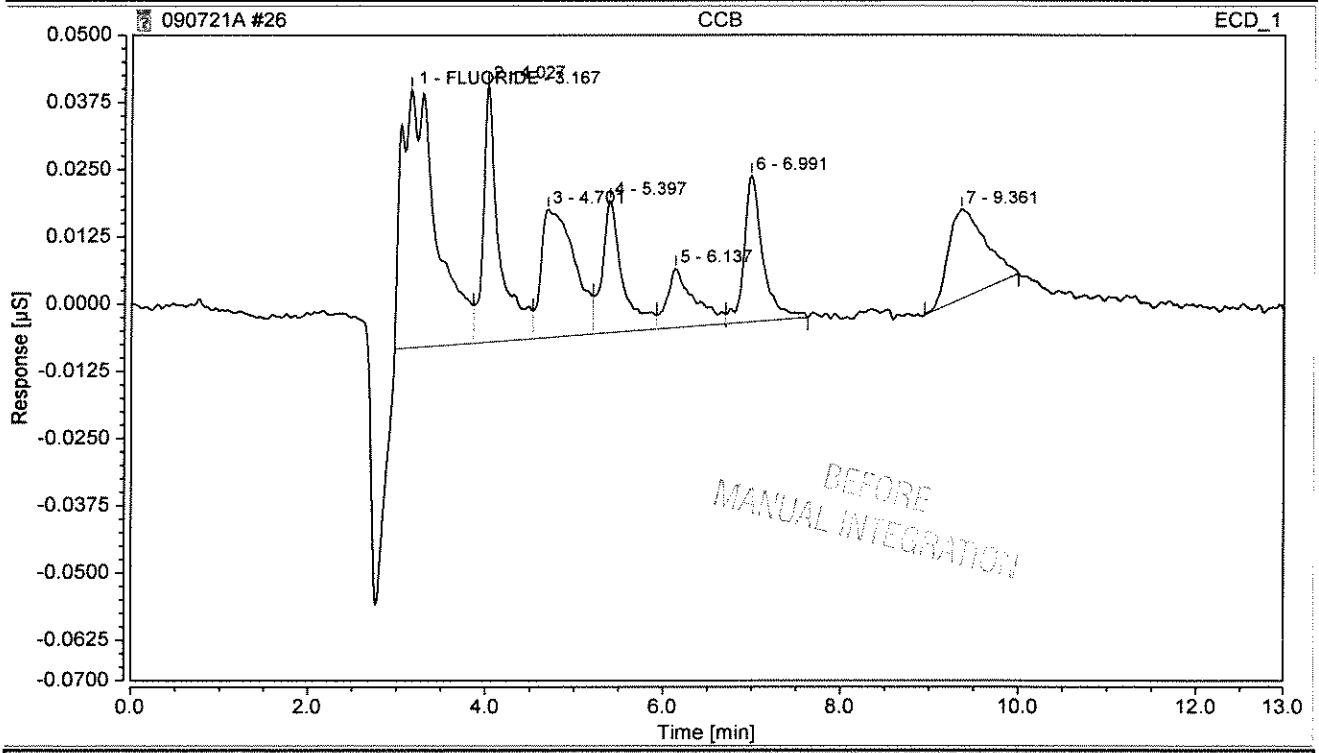
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.091	15.704	89.794	27.91	28.98	33.2753	565.5052
2	CHLORIDE	4.034	11.221	79.977	19.94	25.81	38.5128	285.1276
3	NITRITE	4.681	6.861	35.784	12.19	11.55	11.1773	179.4329
4	SULFATE	5.364	7.870	43.079	13.99	13.90	36.8727	84.3634
5	BROMIDE	6.087	4.891	26.050	8.69	8.41	37.4499	87.2495
6	NITRATE	6.901	6.554	28.136	11.65	9.08	8.7404	118.5104
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**53.100**	**302.820**	**94.36**	**97.73**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.99**
Vial Number:	**26**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 23:32**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

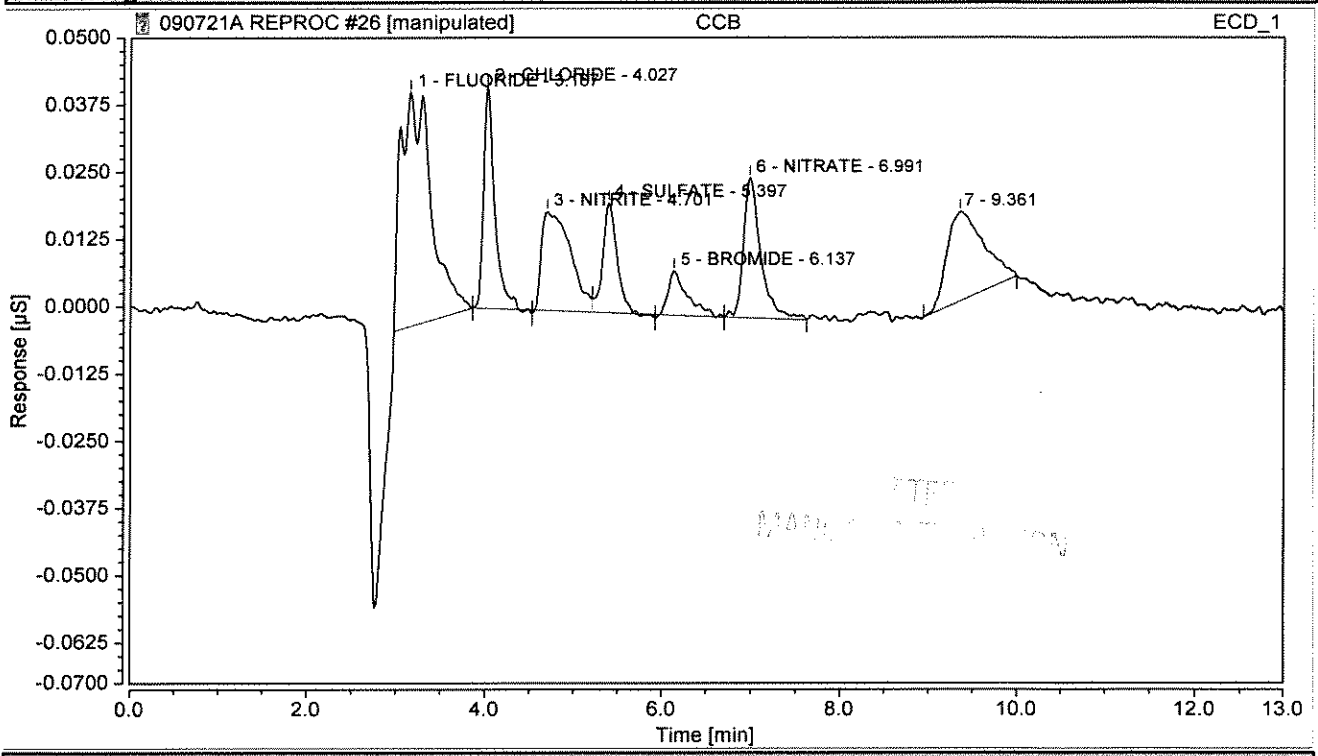
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	0.022	0.048	32.24	24.10	0.0464	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.022**	**0.048**	**32.24**	**24.10**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.99**
Vial Number:	**26**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 23:32**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

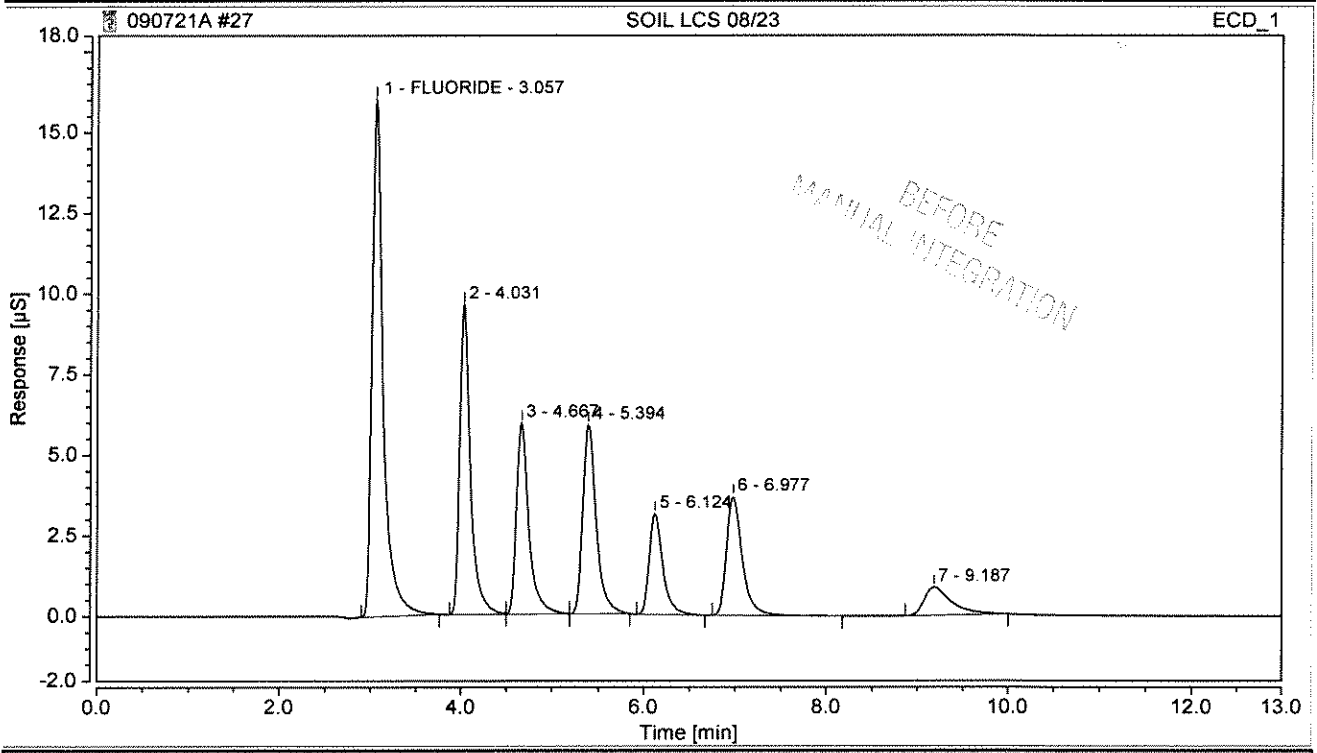
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	0.017	0.044	34.34	24.96	0.0363	n.a.
2	CHLORIDE	4.027	0.006	0.041	11.94	23.64	0.1103	n.a.
3	NITRITE	4.701	0.007	0.018	14.06	10.54	0.0114	n.a.
4	SULFATE	5.397	0.004	0.020	7.67	11.71	0.0179	n.a.
5	BROMIDE	6.137	0.002	0.008	4.12	4.72	0.0118	n.a.
6	NITRATE	6.991	0.006	0.026	11.84	14.90	0.0365	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.042**	**0.158**	**83.97**	**90.46**		

Chromatogram and Results

Injection Details

Injection Name:	**SOIL LCS 08/23**	*Run Time (min):*	**12.99**
Vial Number:	**27**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 23:51**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

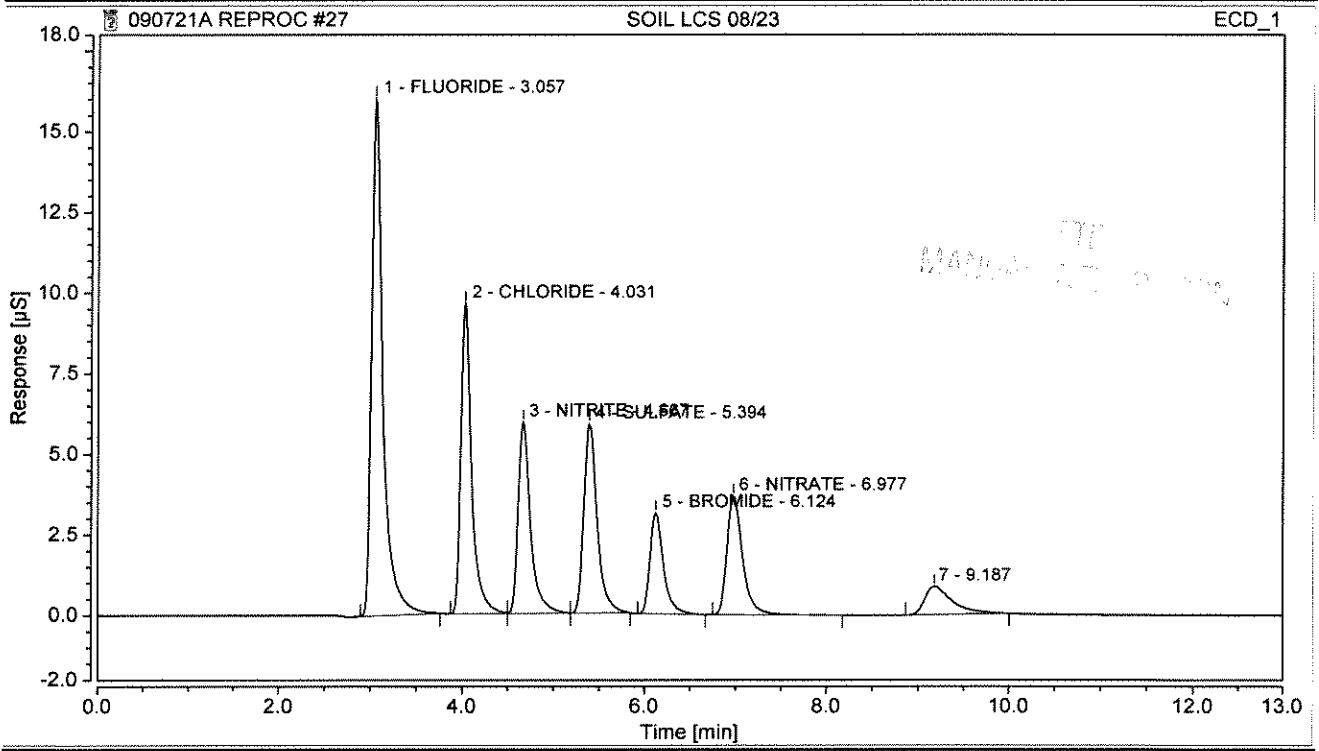
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	2.293	16.039	32.15	35.55	4.8596	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**2.293**	**16.039**	**32.15**	**35.55**		

Chromatogram and Results

Injection Details

Injection Name:	**SOIL LCS 08/23**	*Run Time (min):*	**12.99**
Vial Number:	**27**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 23:51**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

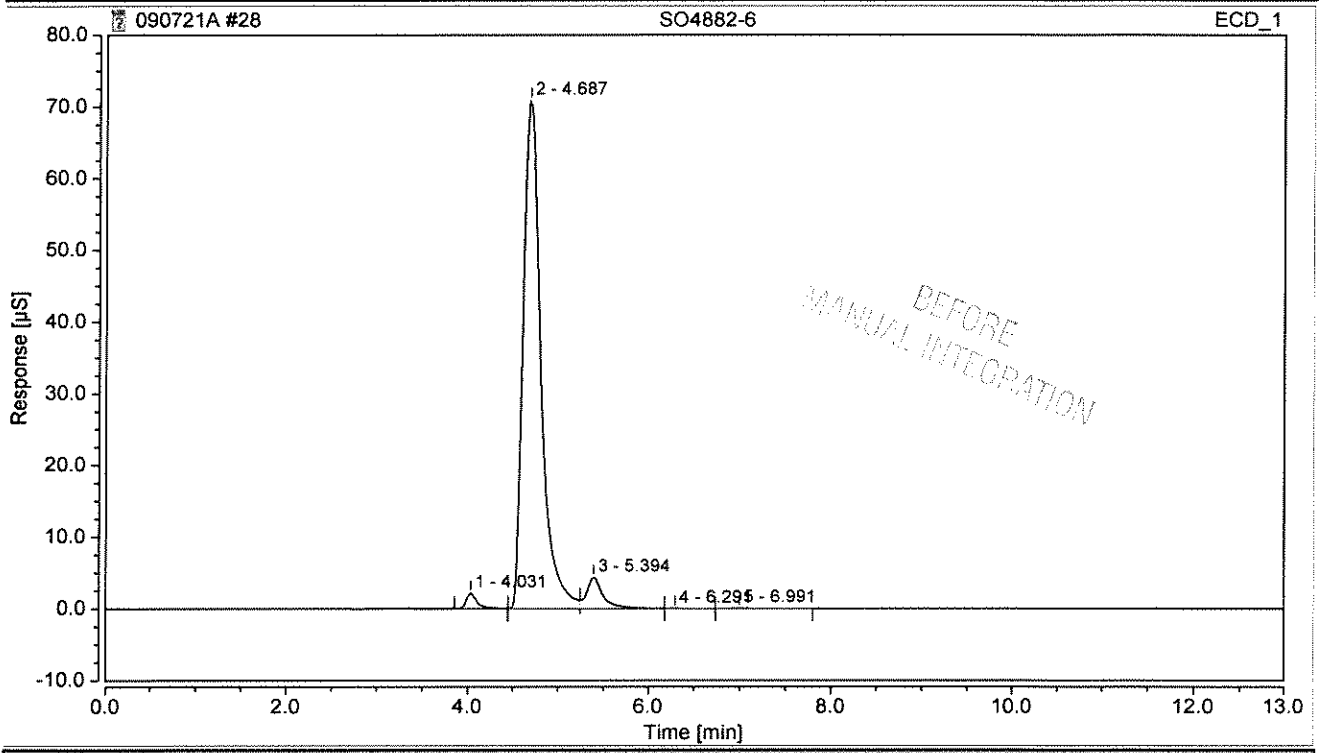
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	2.293	16.039	32.15	35.55	4.8596	n.a.
2	CHLORIDE	4.031	1.313	9.617	18.41	21.31	4.5860	n.a.
3	NITRITE	4.667	0.944	5.927	13.23	13.14	1.5371	n.a.
4	SULFATE	5.394	0.984	5.861	13.79	12.99	4.6081	n.a.
5	BROMIDE	6.124	0.545	3.124	7.64	6.92	4.4907	n.a.
6	NITRATE	6.977	0.743	3.677	10.41	8.15	1.0158	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.821**	**44.245**	**95.63**	**98.06**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-6**	*Run Time (min):*	**12.99**
Vial Number:	**28**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 00:09**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

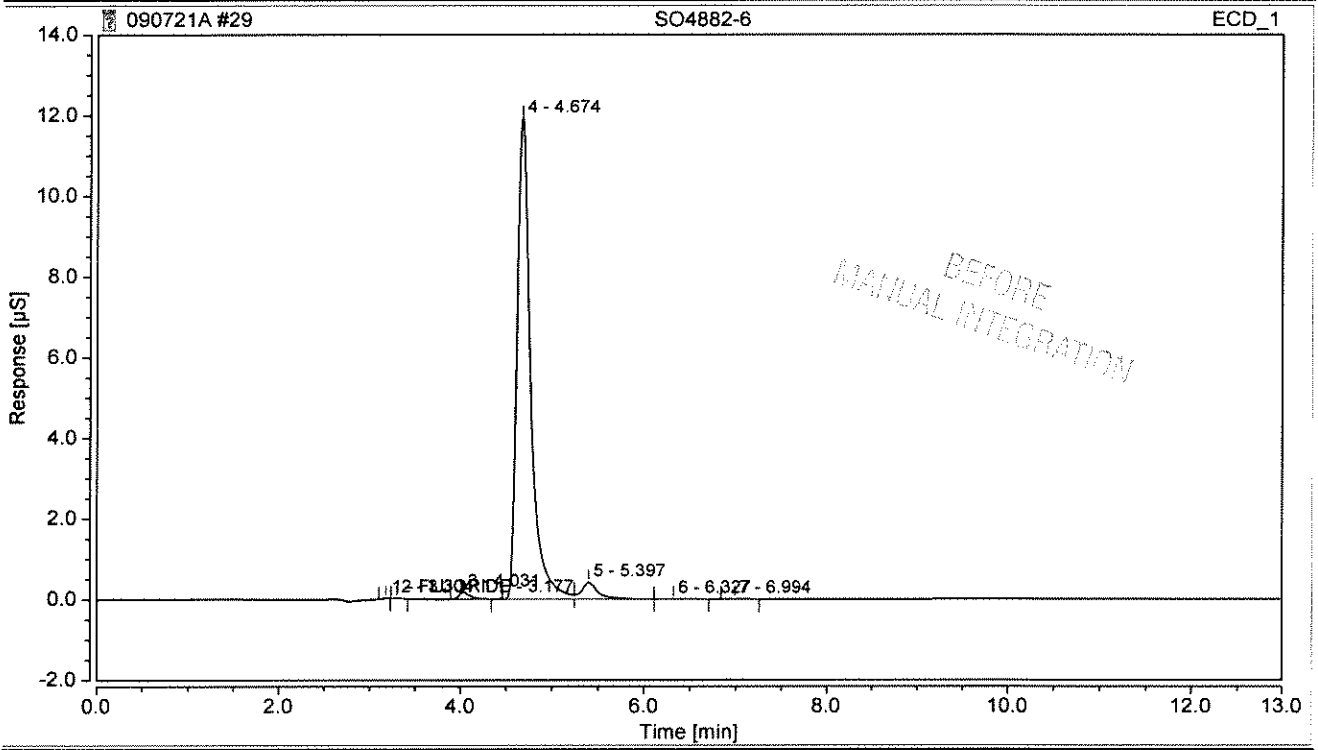
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-6**	*Run Time (min):*	**12.99**
Vial Number:	**29**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**08/Sep/21 00:28**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

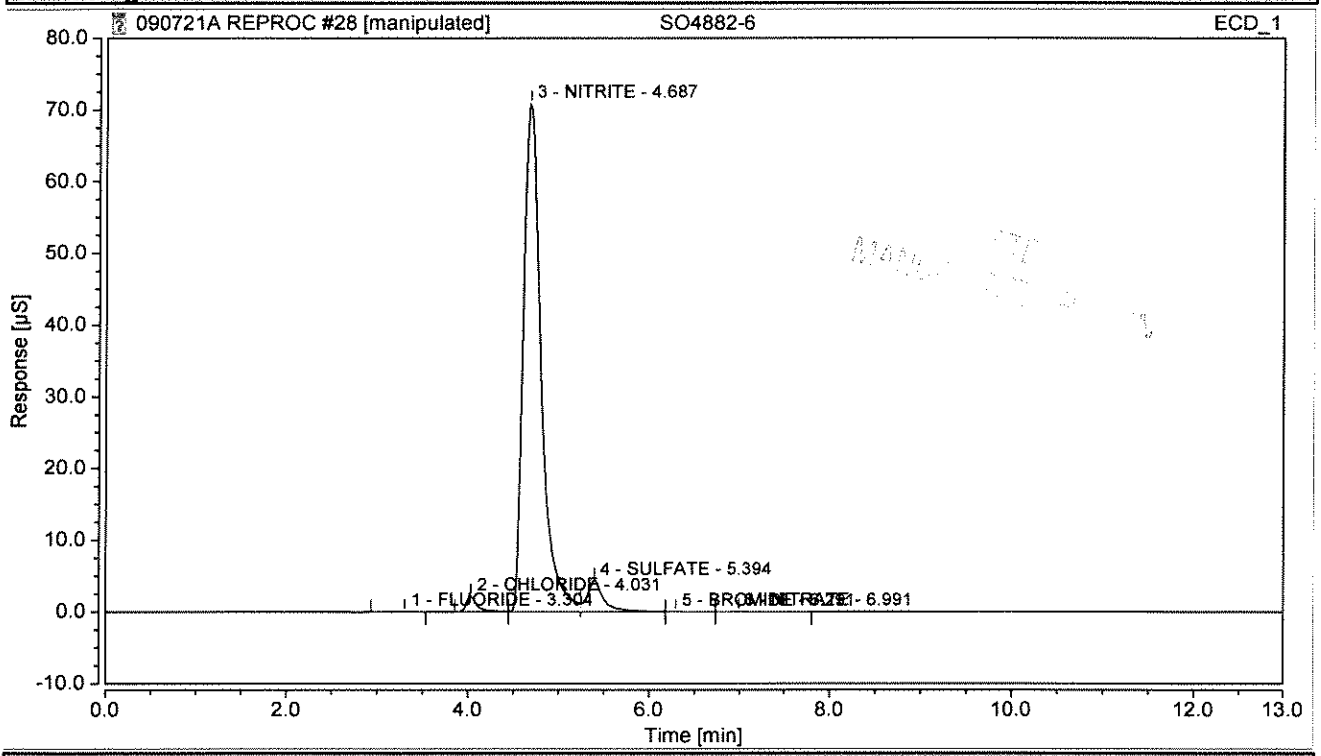
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.177	0.001	0.013	0.05	0.10	0.0227	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.001**	**0.013**	**0.05**	**0.10**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-6**	*Run Time (min):*	**12.99**
Vial Number:	**28**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 00:09**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

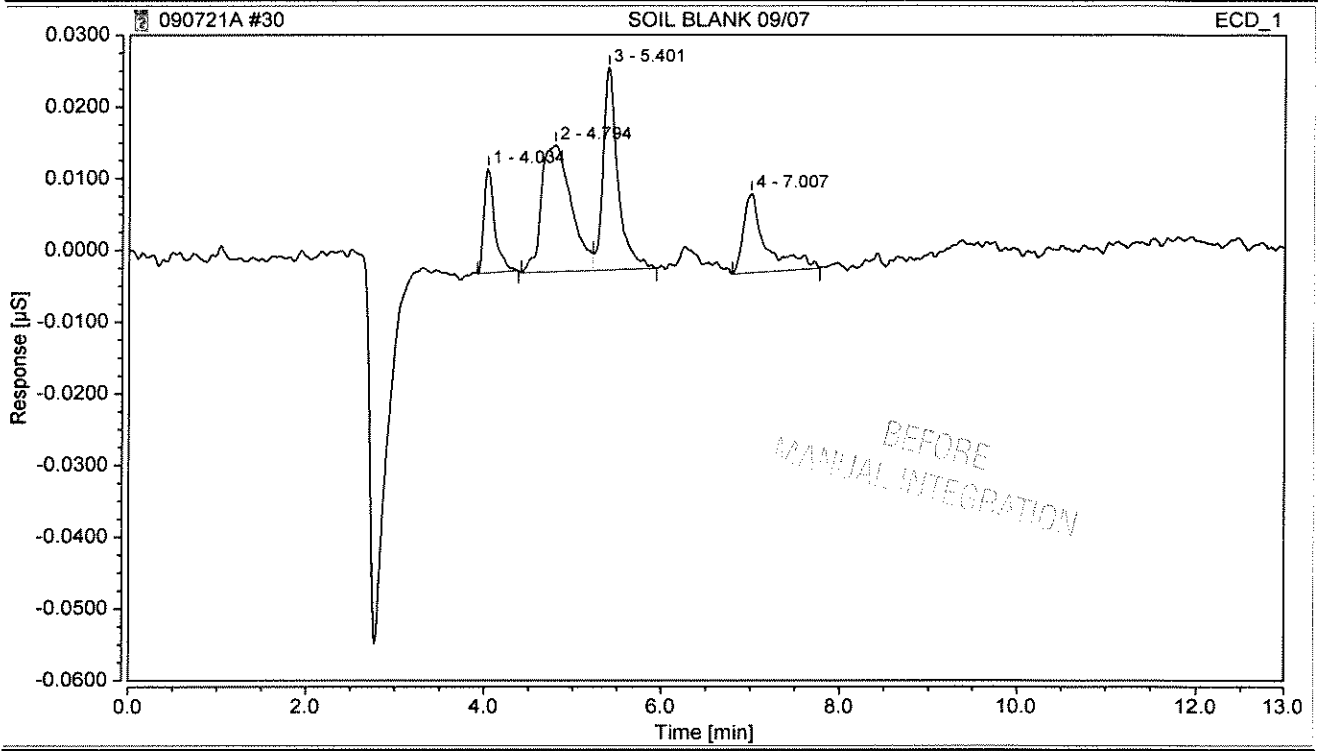
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.304	0.016	0.049	0.09	0.06	0.0337	n.a.
2	CHLORIDE	4.031	0.296	2.175	1.68	2.80	1.1019	n.a.
3	NITRITE	4.687	16.276	70.892	92.79	91.39	26.5162	n.a.
4	SULFATE	5.394	0.929	4.366	5.30	5.63	4.3535	n.a.
5	BROMIDE	6.291	0.011	0.033	0.06	0.04	0.0479	n.a.
6	NITRATE	6.991	0.014	0.059	0.08	0.08	0.0475	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**17.542**	**77.574**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SOIL BLANK 09/07**	*Run Time (min):*	**12.98**
Vial Number:	**30**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 00:47**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

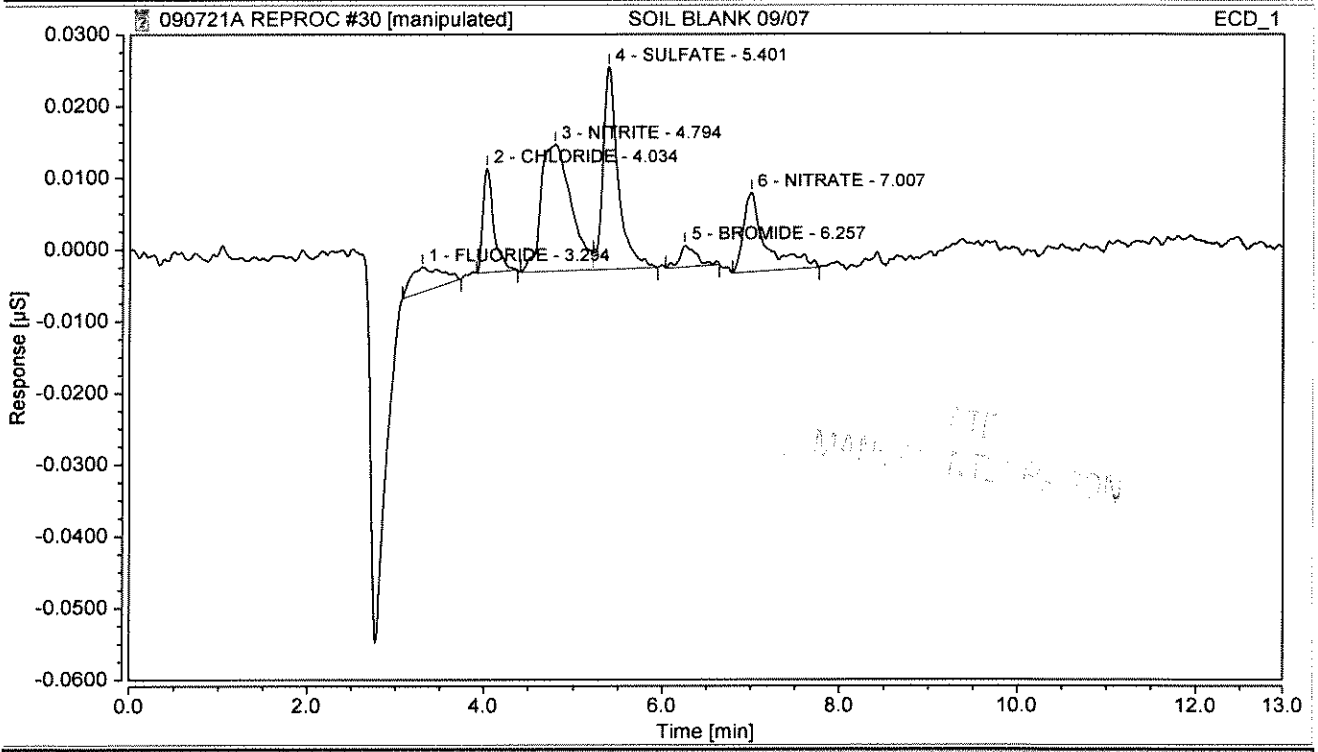
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SOIL BLANK 09/07**	*Run Time (min):*	**12.98**
Vial Number:	**30**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 00:47**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

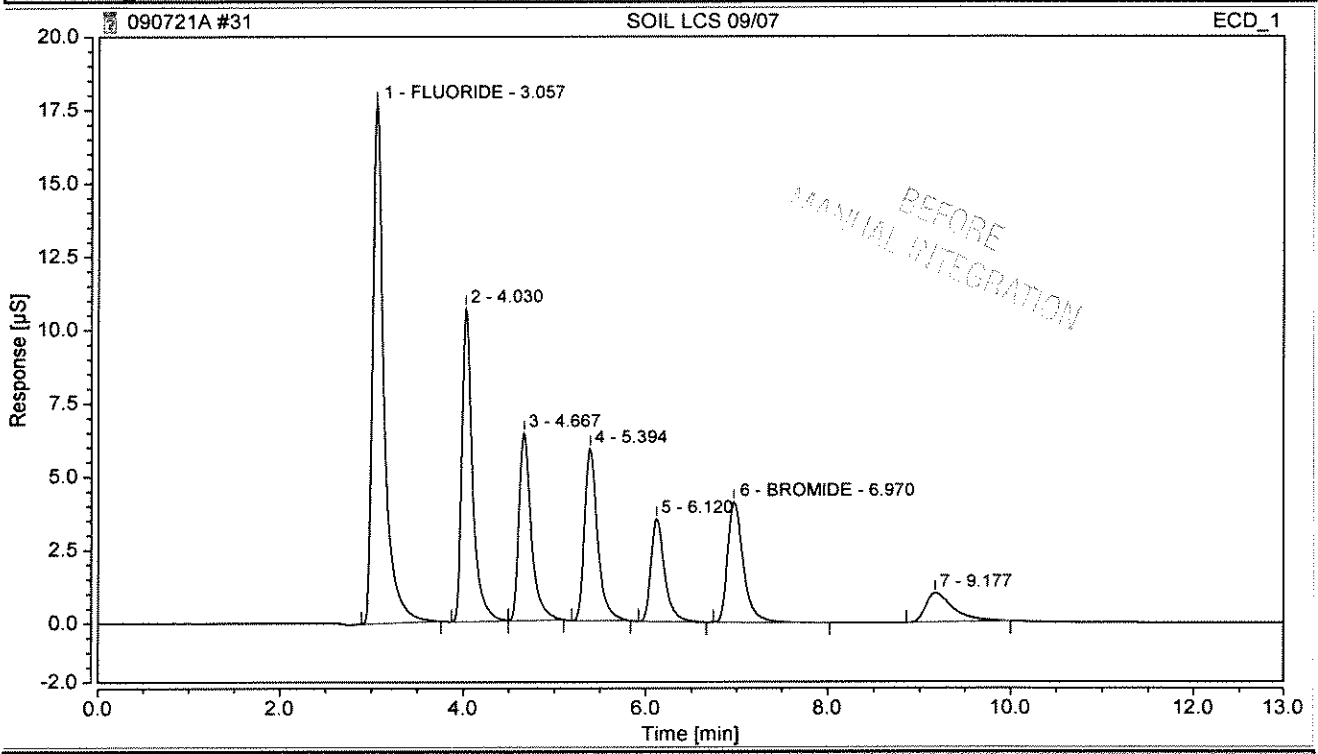
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.294	0.001	0.003	6.84	4.48	0.0029	n.a.
2	CHLORIDE	4.034	0.002	0.015	10.46	18.62	0.0970	n.a.
3	NITRITE	4.794	0.007	0.018	35.12	22.65	0.0113	n.a.
4	SULFATE	5.401	0.005	0.028	27.66	36.15	0.0256	n.a.
5	BROMIDE	6.257	0.001	0.003	3.41	3.93	0.0044	n.a.
6	NITRATE	7.007	0.003	0.011	16.52	14.17	0.0330	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.020**	**0.078**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SOIL LCS 09/07**	*Run Time (min):*	**12.98**
Vial Number:	**31**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 01:06**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

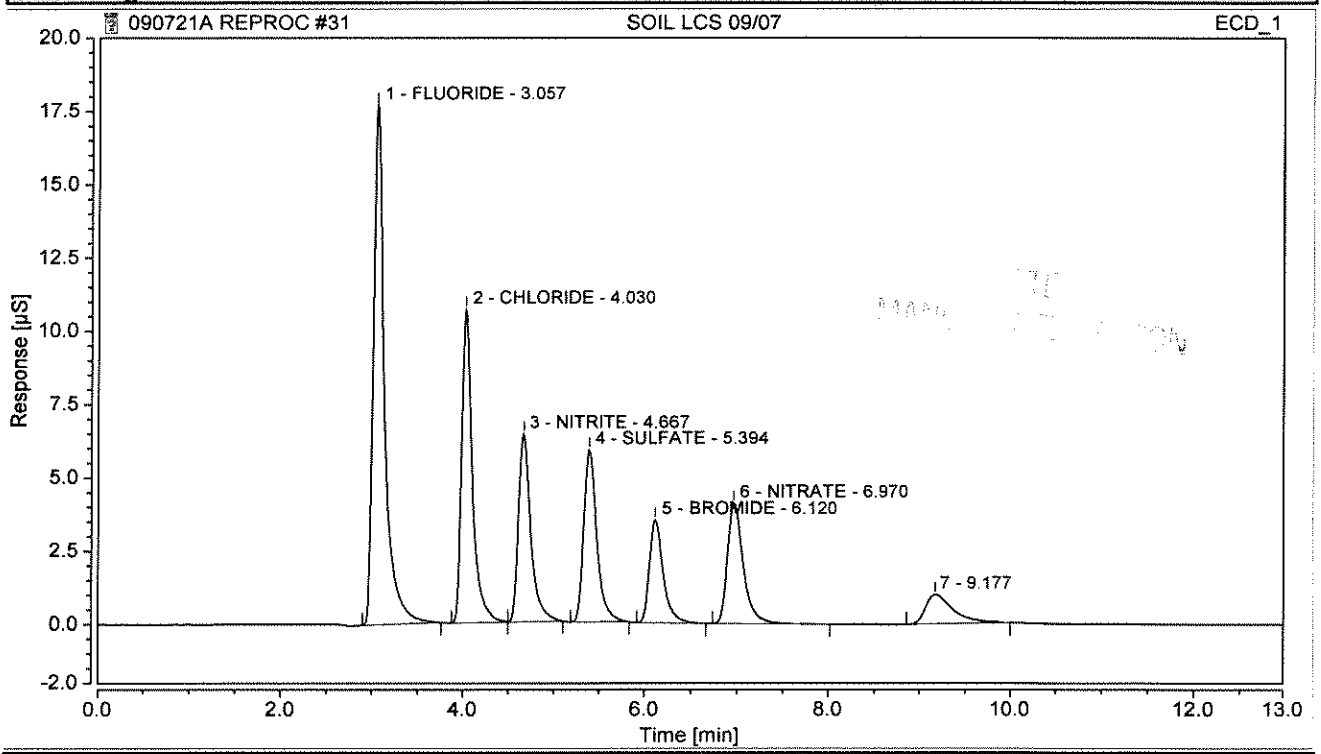
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	2.550	17.714	32.66	35.93	5.4023	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.970	0.832	4.108	10.66	8.33	5.9053	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**3.382**	**21.822**	**43.33**	**44.27**		

Chromatogram and Results

Injection Details

Injection Name:	**SOIL LCS 09/07**	*Run Time (min):*	**12.98**
Vial Number:	**31**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMisocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 01:06**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

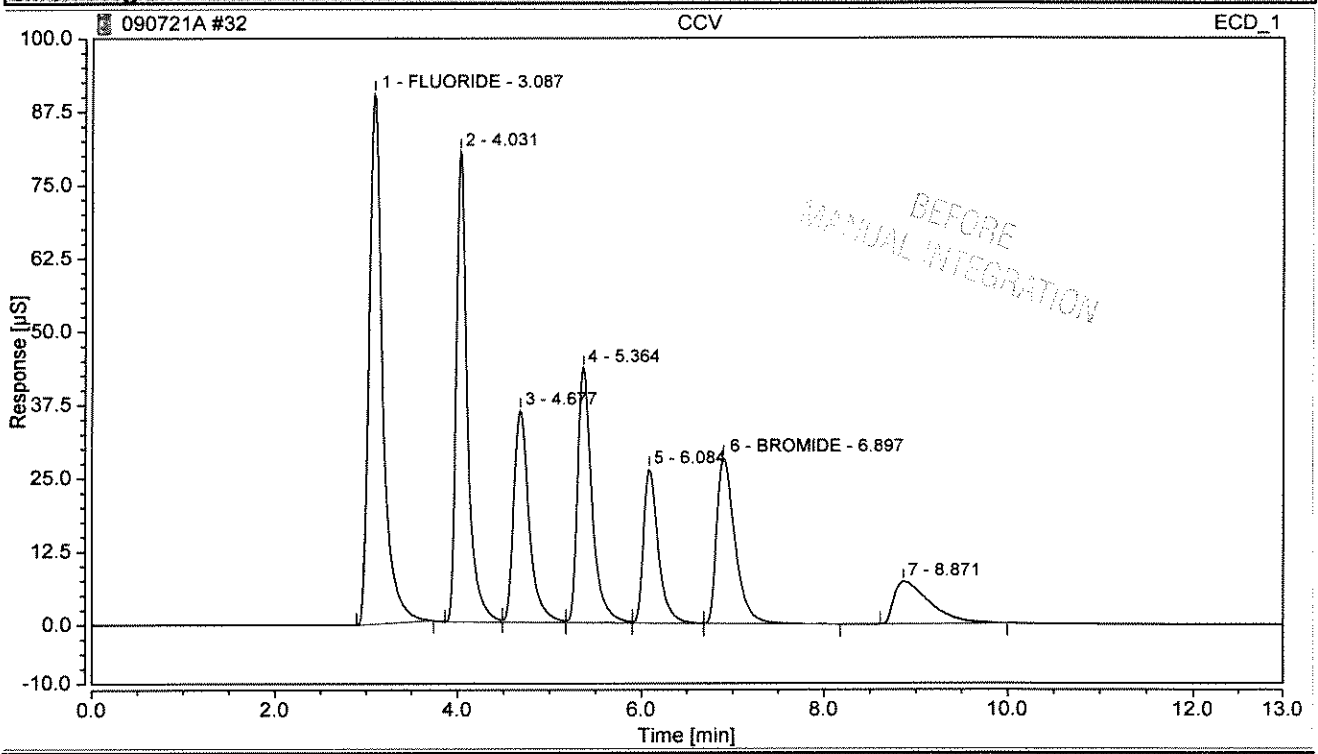
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	2.550	17.714	32.66	35.93	5.4023	n.a.
2	CHLORIDE	4.030	1.464	10.691	18.76	21.69	5.1047	n.a.
3	NITRITE	4.667	1.008	6.401	12.92	12.98	1.6428	n.a.
4	SULFATE	5.394	0.983	5.875	12.60	11.92	4.6071	n.a.
5	BROMIDE	6.120	0.615	3.508	7.87	7.12	5.0437	n.a.
6	NITRATE	6.970	0.832	4.108	10.66	8.33	1.1349	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**7.453**	**48.297**	**95.48**	**97.97**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.99**
Vial Number:	**32**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 01:25**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

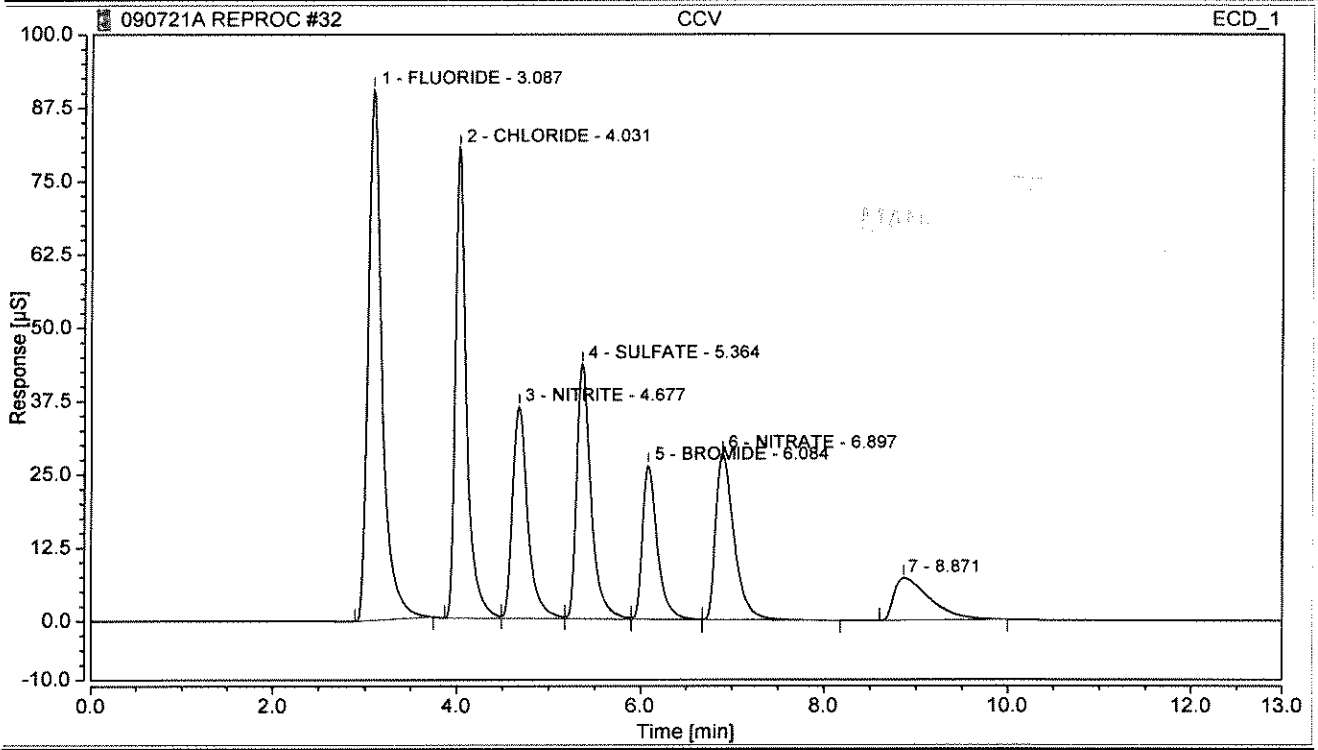
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.087	15.749	90.484	27.78	29.00	33.3711	567.4215
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.897	6.577	28.286	11.60	9.07	40.6638	103.3192
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**22.326**	**118.770**	**39.38**	**38.06**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.99**
Vial Number:	**32**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 01:25**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

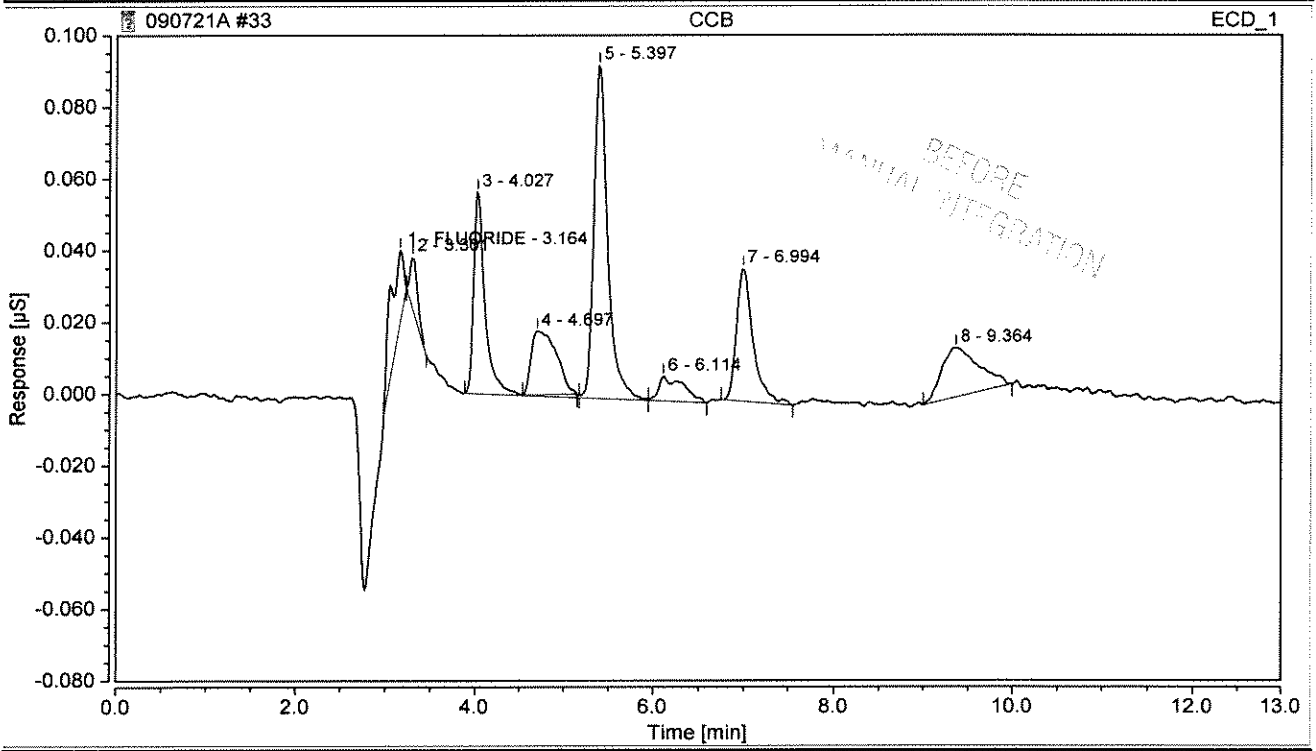
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.087	15.749	90.484	27.78	29.00	33.3711	567.4215
2	CHLORIDE	4.031	11.274	80.232	19.89	25.71	38.6946	286.9455
3	NITRITE	4.677	6.927	36.121	12.22	11.58	11.2846	182.1161
4	SULFATE	5.364	7.947	43.435	14.02	13.92	37.2332	86.1661
5	BROMIDE	6.084	4.964	26.234	8.76	8.41	37.7135	88.5673
6	NITRATE	6.897	6.577	28.286	11.60	9.07	8.7709	119.2715
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**53.438**	**304.792**	**94.27**	**97.68**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.99**
Vial Number:	**33**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 01:43**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

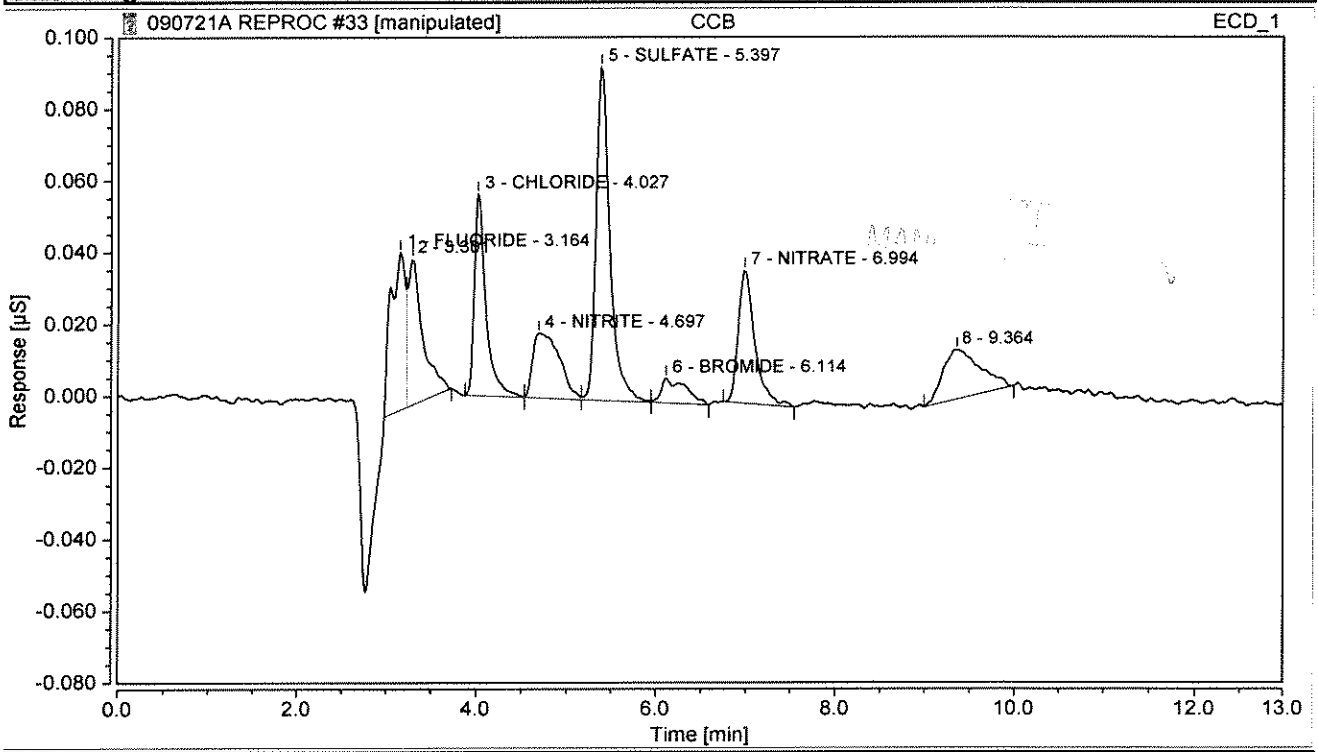
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	0.004	0.020	7.62	7.62	0.0087	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.004**	**0.020**	**7.62**	**7.62**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.99**
Vial Number:	**33**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 01:43**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	0.008	0.044	12.85	14.20	0.0175	n.a.
3	CHLORIDE	4.027	0.008	0.056	13.03	18.16	0.1186	n.a.
4	NITRITE	4.697	0.006	0.018	9.72	5.83	0.0102	n.a.
5	SULFATE	5.397	0.017	0.093	26.09	30.04	0.0785	n.a.
6	BROMIDE	6.114	0.002	0.007	3.35	2.23	0.0099	n.a.
7	NITRATE	6.994	0.008	0.037	12.46	11.96	0.0393	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.050**	**0.255**	**77.50**	**82.42**		

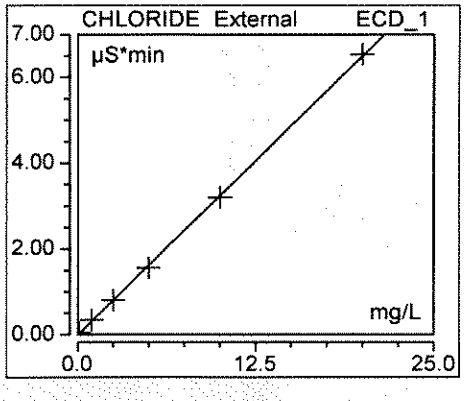
Calibration Batch Report

Sequence:	**083121A CAL**	*Injection Volume:*	**200.00**
Instrument Method:	**ASDV5MLCUPS**	*Operator:*	**Katahdin Analytical**
Inj. Date / Time:	**31-Aug-2021 / 17:56**	*Run Time:*	**12.993833**

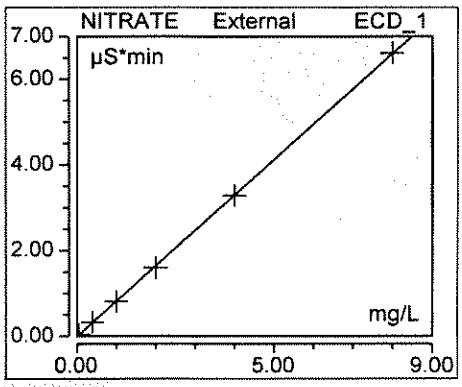
Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
FLUORIDE	Area	Lin	6.000	0.000	0.526	0.000	99.7217
CHLORIDE	Area	in, WithOffse	7.000	-0.008	0.325	0.000	99.9739
NITRITE	Area	Lin	6.000	0.000	0.695	0.000	99.8794
SULFATE	Area	Lin	7.000	0.000	0.242	0.000	99.9905
BROMIDE	Height	Lin	6.000	0.000	0.734	0.000	99.9675
NITRATE	Area	in, WithOffse	7.000	-0.012	0.826	0.000	99.9923
		AVERAGE:		-0.0034	0.5579	0.0000	99.9209

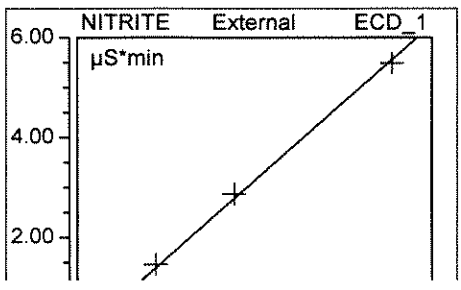
Injection Name **CHLORIDE**	Ret.Time min CHLORIDE	Area µS*min CHLORIDE	Height µS CHLORIDE	Amount mg/L CHLORIDE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	4.034	0.0045	0.031	0.039
CAL 2	4.034	0.0261	0.175	0.106
CAL 3	4.034	0.2526	1.884	0.802
CAL 4	4.034	0.6935	5.136	2.157
CAL 5	4.034	1.4164	10.395	4.379
CAL 6	4.031	2.8556	20.827	8.802
CAL 7	4.034	5.8397	41.807	17.974
Average	4.033			
Rel. Std. Dev.	0.031 %			



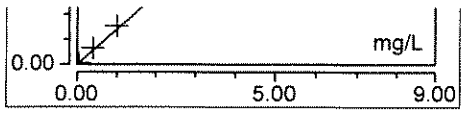
Injection Name **NITRATE**	Ret.Time min NITRATE	Area µS*min NITRATE	Height µS NITRATE	Amount mg/L NITRATE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	7.011	0.0082	0.035	0.024
CAL 2	7.011	0.0265	0.127	0.047
CAL 3	7.004	0.2564	1.301	0.325
CAL 4	6.994	0.7128	3.556	0.877
CAL 5	6.981	1.4721	7.151	1.796
CAL 6	6.957	2.9835	13.912	3.626
CAL 7	6.921	6.0048	26.224	7.283
Average	6.982			
Rel. Std. Dev.	0.476 %			



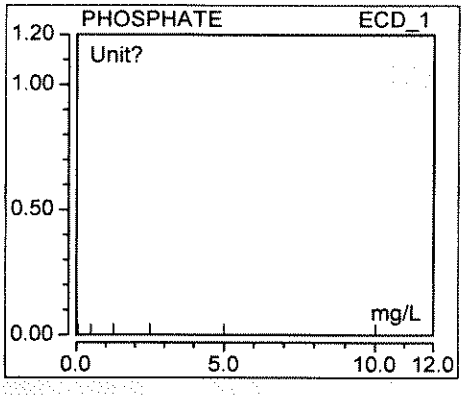
Injection Name **NITRITE**	Ret.Time min NITRITE	Area µS*min NITRITE	Height µS NITRITE	Amount mg/L NITRITE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.
CAL 2	4.674	0.0221	0.114	0.032
CAL 3	4.671	0.2418	1.565	0.348
CAL 4	4.671	0.6591	4.201	0.948



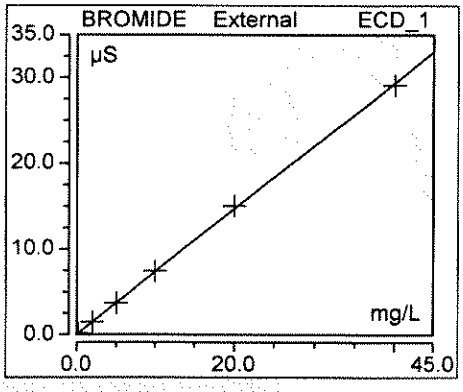
CAL 5	4.674	1.3297	8.181	1.914
CAL 6	4.677	2.5727	15.131	3.702
CAL 7	4.684	4.8209	26.707	6.938
Average	4.675			
Rel. Std. Dev.	0.107 %			



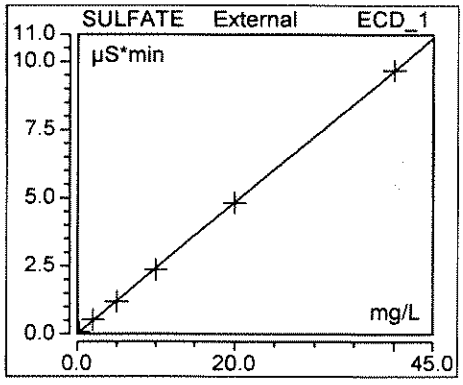
Injection Name	Ret.Time min	Area µS*min	Height µS	Amount mg/L
PHOSPHATE	PHOSPHATE	PHOSPHATE	PHOSPHATE	PHOSPHATE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.
CAL 2	n.a.	n.a.	n.a.	n.a.
CAL 3	n.a.	n.a.	n.a.	n.a.
CAL 4	n.a.	n.a.	n.a.	n.a.
CAL 5	n.a.	n.a.	n.a.	n.a.
CAL 6	n.a.	n.a.	n.a.	n.a.
CAL 7	n.a.	n.a.	n.a.	n.a.
Average	#DIV/0!			
Rel. Std. Dev.	#DIV/0!			



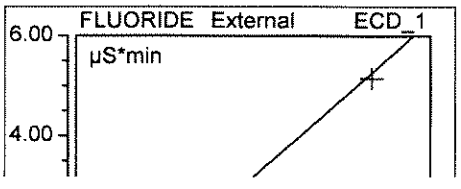
Injection Name	Ret.Time min	Area µS*min	Height µS	Amount mg/L
BROMIDE	BROMIDE	BROMIDE	BROMIDE	BROMIDE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.
CAL 2	6.144	0.0185	0.095	0.130
CAL 3	6.137	0.2220	1.261	1.719
CAL 4	6.134	0.6055	3.477	4.740
CAL 5	6.127	1.2577	7.099	9.677
CAL 6	6.117	2.5482	14.093	19.211
CAL 7	6.097	5.2194	27.705	37.766
Average	6.126			
Rel. Std. Dev.	0.275 %			



Injection Name	Ret.Time min	Area µS*min	Height µS	Amount mg/L
SULFATE	SULFATE	SULFATE	SULFATE	SULFATE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	5.454	0.0090	0.048	0.037
CAL 2	5.454	0.0339	0.184	0.140
CAL 3	5.451	0.3766	2.165	1.559
CAL 4	5.447	1.0175	5.855	4.211
CAL 5	5.441	2.0721	11.737	8.576
CAL 6	5.431	4.1763	23.325	17.285
CAL 7	5.411	8.6085	45.581	35.629
Average	5.441			
Rel. Std. Dev.	0.290 %			

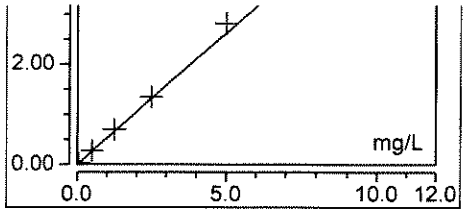


Injection Name	Ret.Time min	Area µS*min	Height µS	Amount mg/L
FLUORIDE	FLUORIDE	FLUORIDE	FLUORIDE	FLUORIDE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.



CAL 2	3.047	0.0274	0.122	0.052
CAL 3	3.047	0.2221	1.478	0.422
CAL 4	3.051	0.5987	3.998	1.139
CAL 5	3.054	1.2190	7.880	2.319
CAL 6	3.061	2.4107	15.024	4.585
CAL 7	3.071	4.6837	28.055	8.908

Average	3.055
Rel. Std. Dev.	0.298 %



Anion Summary Report

No. CHLORIDE	Name CHLORIDE	Time min CHLORIDE ECD_1	Area µS*min CHLORIDE ECD_1	Rel.Area % CHLORIDE ECD_1	Height µS CHLORIDE ECD_1	Rel.Height % CHLORIDE ECD_1	Amount mg/L CHLORIDE ECD_1
1	BLANK	4.034	0.0093	33.63	0.06	40.78	0.0542
2	CAL 1	4.034	0.0045	20.78	0.03	27.12	0.0395
3	CAL 2	4.034	0.0261	16.86	0.18	21.48	0.1057
4	CAL 3	4.034	0.2526	15.79	1.88	19.38	0.8019
5	CAL 4	4.034	0.6935	15.72	5.14	19.34	2.1572
6	CAL 5	4.034	1.4164	15.53	10.40	19.46	4.3791
7	CAL 6	4.031	2.8556	15.46	20.83	19.89	8.8024
8	CAL 7	4.034	5.8397	15.63	41.81	20.79	17.9740
	Sum:	32.267	11.098	149.401	80.317	188.233	34.314
	Average:	4.033	1.387	18.675	10.040	23.529	4.289
	Rel.Std.Dev:	0.029 %	147.768 %	33.736 %	146.452 %	31.596 %	146.886 %

No. NITRATE	Name NITRATE	Time min NITRATE ECD_1	Area µS*min NITRATE ECD_1	Rel.Area % NITRATE ECD_1	Height µS NITRATE ECD_1	Rel.Height % NITRATE ECD_1	Amount mg/L NITRATE ECD_1
1	BLANK	7.014	0.0120	43.23	0.06	38.01	0.0290
2	CAL 1	7.011	0.0082	37.58	0.04	30.91	0.0244
3	CAL 2	7.011	0.0265	17.16	0.13	15.55	0.0466
4	CAL 3	7.004	0.2564	16.03	1.30	13.38	0.3249
5	CAL 4	6.994	0.7128	16.16	3.56	13.39	0.8773
6	CAL 5	6.981	1.4721	16.14	7.15	13.39	1.7963
7	CAL 6	6.957	2.9835	16.15	13.91	13.29	3.6258
8	CAL 7	6.921	6.0048	16.07	26.22	13.04	7.2829
	Sum:	55.891	11.476	178.516	52.363	150.945	14.007
	Average:	6.986	1.435	22.314	6.545	18.868	1.751
	Rel.Std.Dev:	0.469 %	147.259 %	50.513 %	141.917 %	52.146 %	146.040 %

No. NITRITE	Name NITRITE	Time min NITRITE ECD_1	Area µS*min NITRITE ECD_1	Rel.Area % NITRITE ECD_1	Height µS NITRITE ECD_1	Rel.Height % NITRITE ECD_1	Amount mg/L NITRITE ECD_1
1	BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	CAL 2	4.674	0.0221	14.33	0.11	13.90	0.0319
4	CAL 3	4.671	0.2418	15.12	1.56	16.09	0.3479
5	CAL 4	4.671	0.6591	14.94	4.20	15.82	0.9485
6	CAL 5	4.674	1.3297	14.58	8.18	15.32	1.9136
7	CAL 6	4.677	2.5727	13.93	15.13	14.45	3.7023
8	CAL 7	4.684	4.8209	12.90	26.71	13.28	6.9377
	Sum:	28.050	9.646	85.793	55.897	88.851	13.882
	Average:	4.675	1.608	14.299	9.316	14.809	2.314
	Rel.Std.Dev:	0.107 %	113.378 %	5.629 %	108.245 %	7.514 %	113.378 %

No. PHOSPHATE	Name PHOSPHATE	Time min PHOSPHATE ECD_1	Area µS*min PHOSPHATE ECD_1	Rel.Area % PHOSPHATE ECD_1	Height µS PHOSPHATE ECD_1	Rel.Height % PHOSPHATE ECD_1	Amount mg/L PHOSPHATE ECD_1
1	BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

3	CAL 2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	CAL 3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	CAL 4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	CAL 5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	CAL 6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8	CAL 7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Sum:	0.000	0.000	0.000	0.000	0.000	0.000
	Average:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Rel.Std.Dev:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

No. BROMIDE	Name BROMIDE	Time min BROMIDE ECD_1	Area µS*min BROMIDE ECD_1	Rel.Area % BROMIDE ECD_1	Height µS BROMIDE ECD_1	Rel.Height % BROMIDE ECD_1	Amount mg/L BROMIDE ECD_1
1	BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	CAL 2	6.144	0.0185	11.99	0.10	11.67	0.1298
4	CAL 3	6.137	0.2220	13.88	1.26	12.97	1.7191
5	CAL 4	6.134	0.6055	13.72	3.48	13.09	4.7398
6	CAL 5	6.127	1.2577	13.79	7.10	13.29	9.6766
7	CAL 6	6.117	2.5482	13.80	14.09	13.46	19.2109
8	CAL 7	6.097	5.2194	13.97	27.70	13.78	37.7657
	Sum:	36.756	9.871	81.149	53.730	78.247	73.242
	Average:	6.126	1.645	13.525	8.955	13.041	12.207
	Rel.Std.Dev:	0.275 %	120.014 %	5.597 %	117.024 %	5.609 %	117.024 %

No. SULFATE	Name SULFATE	Time min SULFATE ECD_1	Area µS*min SULFATE ECD_1	Rel.Area % SULFATE ECD_1	Height µS SULFATE ECD_1	Rel.Height % SULFATE ECD_1	Amount mg/L SULFATE ECD_1
1	BLANK	5.454	0.0064	23.14	0.03	21.21	0.0265
2	CAL 1	5.454	0.0090	41.65	0.05	41.97	0.0374
3	CAL 2	5.454	0.0339	21.96	0.18	22.48	0.1405
4	CAL 3	5.451	0.3766	23.55	2.17	22.26	1.5586
5	CAL 4	5.447	1.0175	23.06	5.85	22.05	4.2114
6	CAL 5	5.441	2.0721	22.72	11.74	21.97	8.5760
7	CAL 6	5.431	4.1763	22.61	23.32	22.27	17.2851
8	CAL 7	5.411	8.6085	23.04	45.58	22.66	35.6294
	Sum:	43.541	16.300	201.724	88.926	196.883	67.465
	Average:	5.443	2.038	25.216	11.116	24.610	8.433
	Rel.Std.Dev:	0.281 %	148.176 %	26.393 %	144.660 %	28.557 %	148.176 %

No. FLUORIDE	Name FLUORIDE	Time min FLUORIDE ECD_1	Area µS*min FLUORIDE ECD_1	Rel.Area % FLUORIDE ECD_1	Height µS FLUORIDE ECD_1	Rel.Height % FLUORIDE ECD_1	Amount mg/L FLUORIDE ECD_1
1	BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	CAL 2	3.047	0.0274	17.71	0.12	14.92	0.0521
4	CAL 3	3.047	0.2221	13.89	1.48	15.19	0.4224
5	CAL 4	3.051	0.5987	13.57	4.00	15.05	1.1388
6	CAL 5	3.054	1.2190	13.36	7.88	14.75	2.3186
7	CAL 6	3.061	2.4107	13.05	15.02	14.35	4.5853
8	CAL 7	3.071	4.6837	12.54	28.06	13.95	8.9084
	Sum:	18.330	9.162	84.119	56.557	88.215	17.426
	Average:	3.055	1.527	14.020	9.426	14.702	2.904
	Rel.Std.Dev:	0.298 %	115.879 %	13.301 %	112.271 %	3.199 %	115.879 %

KATAHDIN ANALYTICAL SERVICES

SOIL PREPARATION BY METHOD E300

Balance ID: ~~Auto~~ 01 Pipette ID(s) Auto

PREP TIME	SAMPLE ID	WEIGHT (g)	TOTAL H20 ADDED(ml)	ANALYSIS REQUESTED	SPIKE ADDED
15:25	BLANK	-	100	Nor	.5 ml of MLA + MLB
↓	LCS	-	↓	↓	↓
↓	So 4882-6	10.1388	↓	↓	1 ml of 6288-6 PT
				SS 9/8/21	

NOTES:

ANALYST: SS DATE: 9/7/21

CHECKED BY: DATE:

KATAHDIN ANALYTICAL SERVICES

SOIL PREPARATION BY METHOD E300

Balance ID: 01 **Pipette ID(s)** auto

PREP TIME	SAMPLE ID	WEIGHT (g)	TOTAL H20 ADDED(ml)	ANALYSIS REQUESTED	SPIKE ADDED
14:03	BLANK	—	100	FL	
↓	LCS	—	↓	↓	
↓	804882-1B	10.0228	↓	↓	
		8/25/21			

NOTES:

ANALYST: **DATE:** 8/23/21

CHECKED BY: **DATE:**

WET CHEMISTRY BATCH REPORT
Aug 30 2021, 09:12 am
Batch: WG305308 Run ID 1: R575520 Run ID 2: R575523

Parameter: Dissolved Organic Carbon (1)

Prep Date: N/A

Date Analyzed: 27-AUG-21

Prep Method: N/A

Analyst Initials: JL

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5303-1	SAMP	SW846 9060A	20.000mL	20.000mL	1	2.738	2.7 mg/L	NA	1	0.32	1.0		
SO5303-2	SAMP	SW846 9060A	20.000mL	20.000mL	1	3.986	4.0 mg/L	NA	1	0.32	1.0		
SO5303-3	SAMP	SW846 9060A	20.000mL	20.000mL	1	3.743	3.7 mg/L	NA	1	0.32	1.0		
SO5303-4	SAMP	SW846 9060A	20.000mL	20.000mL	1	3.728	3.7 mg/L	NA	1	0.32	1.0		
SO5303-5	SAMP	SW846 9060A	20.000mL	20.000mL	1	3.353	3.4 mg/L	NA	1	0.32	1.0		
SO5303-6	SAMP	SW846 9060A	20.000mL	20.000mL	1	2.968	3.0 mg/L	NA	1	0.32	1.0		
SO5303-7	SAMP	SW846 9060A	20.000mL	20.000mL	1	3.767	3.8 mg/L	NA	1	0.32	1.0		
SO5303-8	SAMP	SW846 9060A	20.000mL	20.000mL	1	.1042	U1.0 mg/L	NA	1	0.32	1.0		
WG305308-1	MBLANK	SW846 9060A	20.000mL	20.000mL	1	.1098	U0.50 mg/L	NA	1	0.32	1.0		
WG305308-2	LCS	SW846 9060A	20.000mL	20.000mL	1	52.02	52. mg/L	NA	1	0.32	1.0		104
WG305308-3	MS	SW846 9060A	20.000mL	20.000mL	1	115.1	120 mg/L	NA	1	0.32	1.0		112
WG305308-4	MSD	SW846 9060A	20.000mL	20.000mL	1	101.7	100 mg/L	NA	1	0.32	1.0	12	98

Comments:

SO5303-5	ms/msd
WG305308-1	SO5303-5
WG305308-2	SO5303-5
WG305308-3	SO5303-5
WG305308-4	SO5303-5

Entered by: JL Date: 8/30/21 Accepted by: ZS Date: 8/30/21

Katahdin Analytical Services 5000088

WET CHEMISTRY BATCH REPORT
Aug 30 2021, 09:17 am
Batch: WG305310 Run ID 1: R575521 Run ID 2: R575525

Parameter: Total Organic Carbon

Date Analyzed: 27-AUG-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5454-1	SAMP	SM5310B	20.000mL	20.000mL	1	6.63	6.6 mg/L	NA	1	0.10	1.0		
SO5494-1	SAMP	SM5310B	20.000mL	20.000mL	1	2.551	2.6 mg/L	NA	1	0.10	1.0		
WG305310-1	MBLANK	SM5310B	20.000mL	20.000mL	1	.1961	J0.20 mg/L	NA	1	0.10	1.0		
WG305310-2	LCS	SM5310B	20.000mL	20.000mL	1	52.18	52. mg/L	NA	1	0.10	1.0		104

Comments:

WG305310-1 SO5454-1
WG305310-2 SO5454-1

Entered by: _____ Date: 8/30/21 Accepted by: _____ Date: 8/30/21

Katahdin Analytical Services 5000089

WET CHEMISTRY BATCH REPORT
Aug 30 2021, 09:19 am
Batch: WG305311 Run ID 1: R575522 Run ID 2: R575526

Parameter: Total Organic Carbon (1) Prep Date: N/A

Date Analyzed: 27-AUG-21 Prep Method: N/A

Analyst Initials: JL Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5506-6	SAMP	SW846 9060A	20.000mL	20.000mL	1	.1851	U0.50 mg/L	NA	1	0.25	1.0		
SO5512-1	SAMP	SW846 9060A	20.000mL	20.000mL	1	1.483	1.5 mg/L	NA	1	0.10	1.0		
SO5556-2	SAMP	SW846 9060A	20.000mL	20.000mL	1	2.414	2.4 mg/L	NA	1	0.25	1.0		
SO5557-1	SAMP	SW846 9060A	20.000mL	20.000mL	1	3.556	3.6 mg/L	NA	1	0.10	1.0		
SO5557-3	SAMP	SW846 9060A	20.000mL	20.000mL	1	2.327	2.3 mg/L	NA	1	0.10	1.0		
WG305311-1	MBLANK	SW846 9060A	20.000mL	20.000mL	1	.1961	J0.20 mg/L	NA	1	0.10	1.0		
WG305311-2	LCS	SW846 9060A	20.000mL	20.000mL	1	52.18	52. mg/L	NA	1	0.10	1.0		104

Comments:

SO5512-1	Anions please report Cl & SO4.
SO5556-2	Anions= NO2, NO3, SO4, CL
WG305311-1	SO5506-6
WG305311-2	SO5506-6

Entered by: JL Date: 8/30/21 Accepted by: ZF Date: 8/30/21

Katahdin Analytical Services 5000090

KATAHDIN ANALYTICAL SERVICES, LLC
CARBON ANALYSIS RUN INFORMATION SHEET

INSTR. ID: WC2 (Shimadzu TOC-V_{CPH}) **ANALYST:** JL **DATE:** 08/30/21

FILE NAME: DOC1082721
SMTOC082721
TOC1082721

METHOD(S):

TOC	DOC	TIC
• EPA 415.1	• EPA 415.1	• EPA 415.1
• SM5310B	• SM5310B	• SM5310B
• _____	• _____	• _____

CALIBRATION DATE: 07-23-21 **CALIBRATION ANALYST:** KD/JL

Calibration standards were prepared by performing dilutions of the following standard on the day of calibration:

Calibration Source Standard ID	Prep Date	Expiration Date	Standard Conc. (mg/L)
W20214	07/23/21	10/23/21	2000

Note: Calibration must be performed quarterly or whenever a change in analysis conditions warrant. A copy of the associated calibration data is attached to this run.

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
CCV	W20215	07/23/21	10/23/21	100 mg C/L
LCS	W20212	07/23/21	10/23/21	50 mg C/L
MS Stock Std. *	W20214	07/23/21	10/23/21	2000 mg C/L
Alkalinity Check	W20213	07/23/21	10/23/21	15 mg/L (Inorg. C)

* Matrix spikes are prepared by adding 2.0 mL of MS Stock Std. to 38 mL of sample.

Additional Comments and Notes:

JL 8/30/21

	Sample Name	Dilution	Result	Comment	Date / Time	Vial
1	ALK	1.000	NPOC:0.2196 mg/L		8/27/2021 4:08:32 PM	1
2	CCV	1.000	NPOC:96.43 mg/L	96%	8/27/2021 4:23:04 PM	2
3	BLANK	1.000	NPOC:0.1098 mg/L		8/27/2021 4:33:59 PM	6
4	LCS	1.000	NPOC:52.02 mg/L		8/27/2021 4:47:58 PM	10
5	LCS	1.000	NPOC:52.18 mg/L		8/27/2021 4:59:57 PM	10
6	SO5303-1	1.000	NPOC:2.738 mg/L		8/27/2021 5:11:52 PM	11
7	SO5303-2	1.000	NPOC:3.986 mg/L		8/27/2021 5:24:01 PM	12
8	SO5303-3	1.000	NPOC:3.743 mg/L		8/27/2021 5:36:08 PM	13
9	SO5303-4	1.000	NPOC:3.728 mg/L		8/27/2021 5:48:20 PM	14
10	SO5303-5	1.000	NPOC:3.353 mg/L		8/27/2021 6:00:33 PM	15
11	SO5303-5 MS	1.000	NPOC:115.1 mg/L		8/27/2021 6:14:29 PM	16
12	SO5303-5 MSD	1.000	NPOC:101.7 mg/L		8/27/2021 6:28:23 PM	17
13	SO5303-6	1.000	NPOC:2.968 mg/L		8/27/2021 6:41:11 PM	18
14	CCV	1.000	NPOC:96.01 mg/L	96%	8/27/2021 6:55:47 PM	2
15	BLANK	1.000	NPOC:0.1961 mg/L		8/27/2021 7:07:03 PM	6
16	SO5303-7	1.000	NPOC:3.767 mg/L		8/27/2021 7:19:14 PM	19
17	SO5303-8	1.000	NPOC:0.1042 mg/L		8/27/2021 7:30:04 PM	20
18	SO5454-1	1.000	NPOC:6.630 mg/L		8/27/2021 7:42:36 PM	21
19	SO5494-1	1.000	NPOC:2.551 mg/L		8/27/2021 7:54:37 PM	22
20	SO5506-6	1.000	NPOC:0.1851 mg/L		8/27/2021 8:05:41 PM	23
21	SO5512-1	1.000	NPOC:1.483 mg/L		8/27/2021 8:17:28 PM	24
22	SO5556-2	1.000	NPOC:2.414 mg/L		8/27/2021 8:29:30 PM	25
23	SO5557-1	1.000	NPOC:3.556 mg/L		8/27/2021 8:41:51 PM	26
24	SO5557-3	1.000	NPOC:2.327 mg/L		8/27/2021 8:53:49 PM	27
25	CCV	1.000	NPOC:97.00 mg/L	97%	8/27/2021 9:08:03 PM	3
26	BLANK	1.000	NPOC:0.000 mg/L		8/27/2021 9:18:56 PM	7
27						
28						
29						
30						

Instr.Information

System	TOC-Vcph / ASI-V
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Sample

Sample Name:	ALK
Sample ID:	<Untitled>
Origin:	DOUBLE INJECTION B.met
Chk. Result	

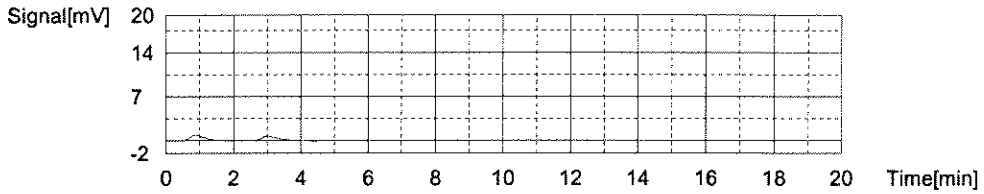
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2196 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.490	0.2368mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:06:00 PM
2	2.129	0.2025mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:08:32 PM

Mean Area	2.309
Mean Conc.	0.2196mg/L



Sample

Sample Name:	CCV
Sample ID:	<Untitled>
Origin:	DOUBLE INJECTION B.met
Chk. Result	

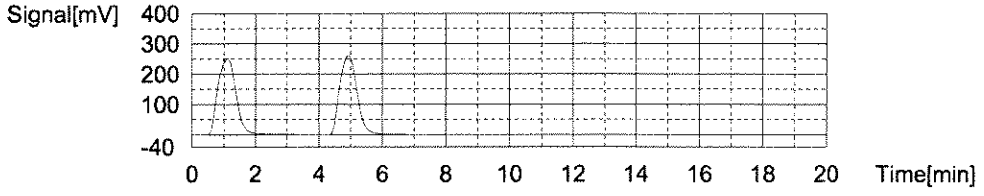
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:96.43 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1018	96.81mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:19:15 PM
2	1010	96.05mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:23:04 PM

Mean Area	1014
Mean Conc.	96.43mg/L



Katahdin Analytical Services 5000093

Control Sample

Sample Name: BLANK
Sample ID: <Untitled>
Method: BLANK DOUBLE INJECTION.tpl
Chk. Result Control value: 0.1098 / Control within range!

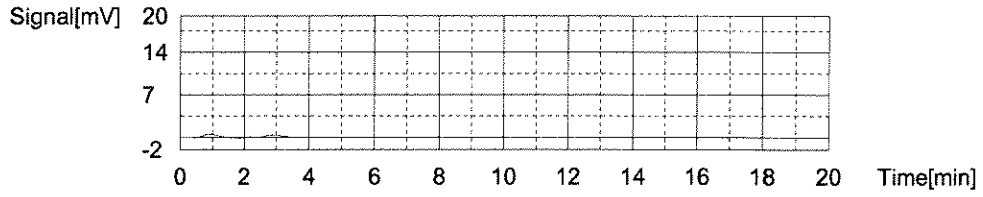
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:0.1098 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.468	0.1396mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:31:53 PM
2	0.8414	0.08002mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:33:59 PM

Mean Area 1.155
Mean Conc. 0.1098mg/L



Control Sample

Sample Name: LCS
Sample ID: <Untitled>
Method: LCS DOUBLE INJECTION.tpl
Chk. Result Control value: 52.02 / Control within range!

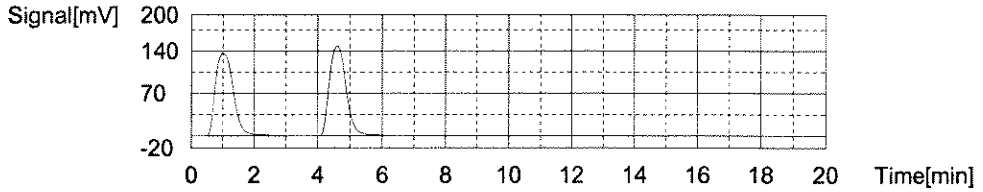
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:52.02 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	547.9	52.11mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:44:27 PM
2	546.1	51.94mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:47:58 PM

Mean Area 547.0
Mean Conc. 52.02mg/L



Control Sample

Sample Name: LCS
Sample ID: <Untitled>
Method: LCS DOUBLE INJECTION.tpl
Chk. Result Control value: 52.18 / Control within range!

Katahdin Analytical Services 5000094

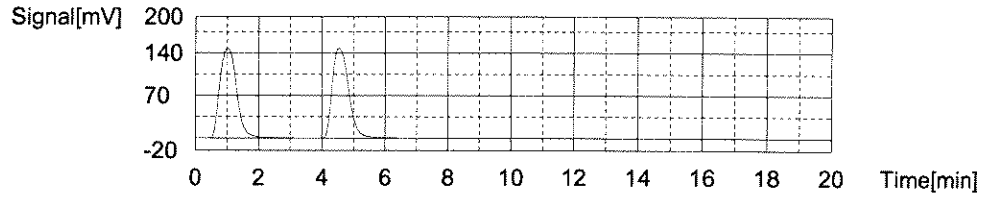
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:52.18 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	551.7	52.47mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:56:24 PM
2	545.6	51.89mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:59:57 PM

Mean Area 548.7
Mean Conc. 52.18mg/L



Sample

Sample Name: SO5303-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

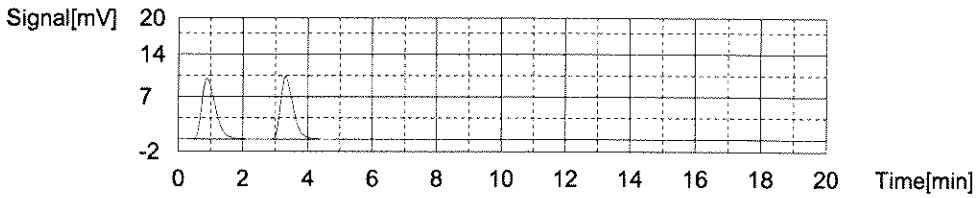
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.738 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	29.05	2.763mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:09:15 PM
2	28.53	2.713mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:11:52 PM

Mean Area 28.79
Mean Conc. 2.738mg/L



Sample

Sample Name: SO5303-2
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

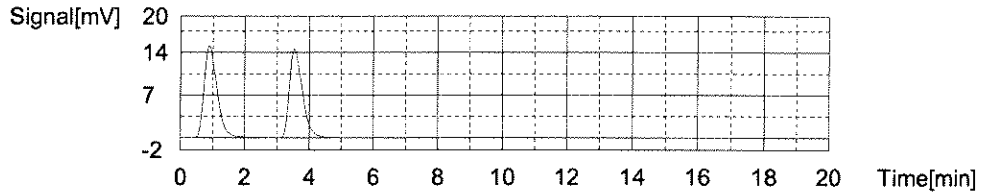
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.986 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	42.51	4.043mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:21:23 PM
2	41.32	3.930mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:24:01 PM

Mean Area 41.92
Mean Conc. 3.986mg/L



Sample

Sample Name: SO5303-3
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

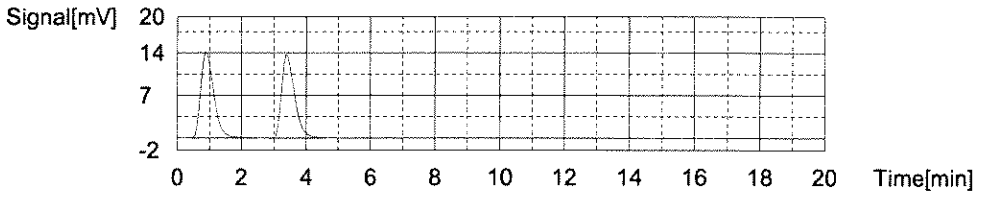
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.743 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	39.35	3.742mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:33:23 PM
2	39.36	3.743mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:36:08 PM

Mean Area 39.36
Mean Conc. 3.743mg/L



Sample

Sample Name: SO5303-4
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

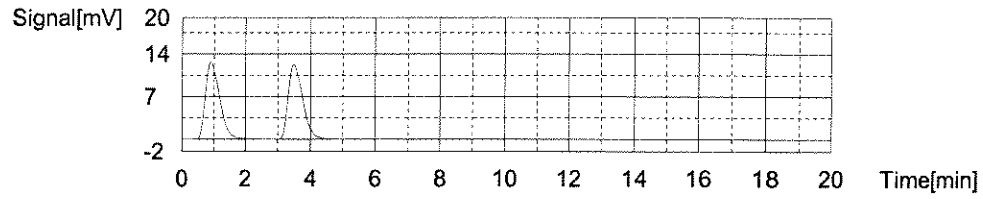
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.728 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	39.62	3.768mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:45:35 PM
2	38.79	3.689mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:48:20 PM

Mean Area 39.20
Mean Conc. 3.728mg/L



Sample

Sample Name: SO5303-5
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

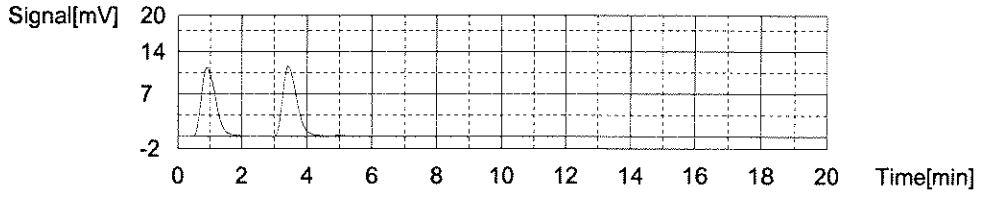
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.353 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.25	3.352mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:57:43 PM
2	35.26	3.353mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:00:33 PM

Mean Area 35.26
Mean Conc. 3.353mg/L



Sample

Sample Name: SO5303-5 MS
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

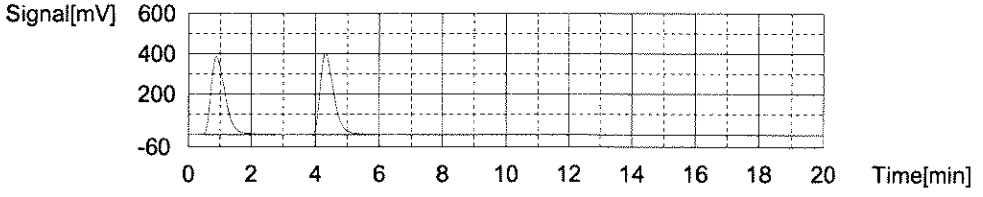
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:115.1 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1217	115.7mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:10:51 PM
2	1204	114.5mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:14:29 PM

Mean Area 1211
Mean Conc. 115.1mg/L



Katahdin Analytical Services 5000097

Sample

Sample Name: SO5303-5 MSD
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

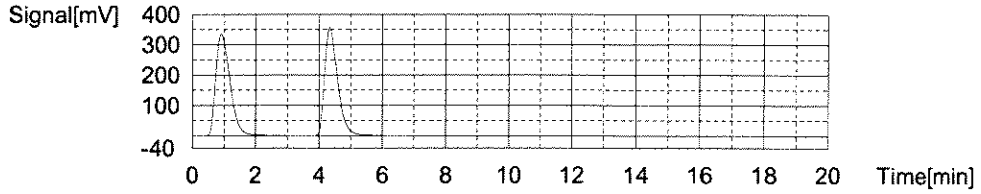
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:101.7 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1078	102.5mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:24:48 PM
2	1061	100.9mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:28:23 PM

Mean Area 1070
Mean Conc. 101.7mg/L



Sample

Sample Name: SO5303-6
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

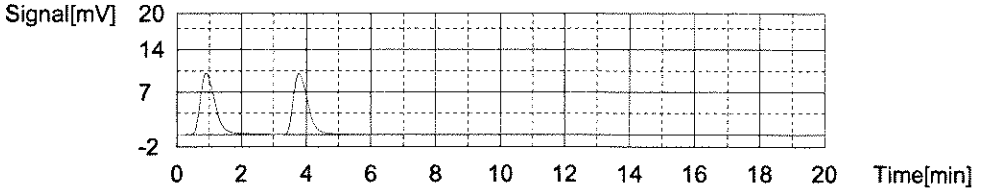
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.968 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	31.52	2.998mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:38:07 PM
2	30.90	2.939mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:41:11 PM

Mean Area 31.21
Mean Conc. 2.968mg/L



Control Sample

Katahdin Analytical Services 5000098

Sample Name: CCV
Sample ID: <Untitled>
Method: CCV DOUBLE INJECTION.tpl
Chk. Result Control value: 96.01 / Control within range!

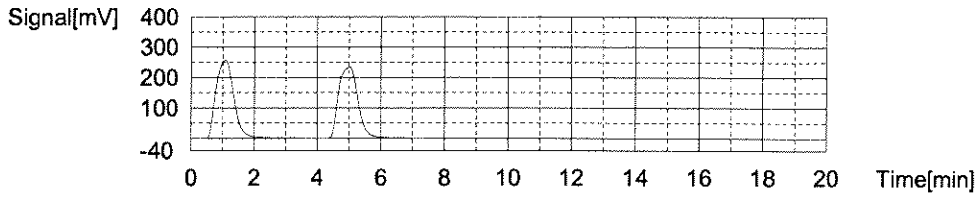
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:96.01 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1017	96.72mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:52:03 PM
2	1002	95.29mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:55:47 PM

Mean Area 1010
Mean Conc. 96.01mg/L



Control Sample

Sample Name: BLANK
Sample ID: <Untitled>
Method: BLANK DOUBLE INJECTION.tpl
Chk. Result Control value: 0.1961 / Control within range!

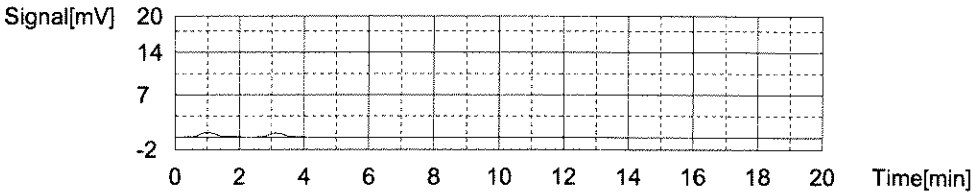
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:0.1961 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.224	0.2115mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:04:48 PM
2	1.901	0.1808mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:07:03 PM

Mean Area 2.063
Mean Conc. 0.1961mg/L



Sample

Sample Name: SO5303-7
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

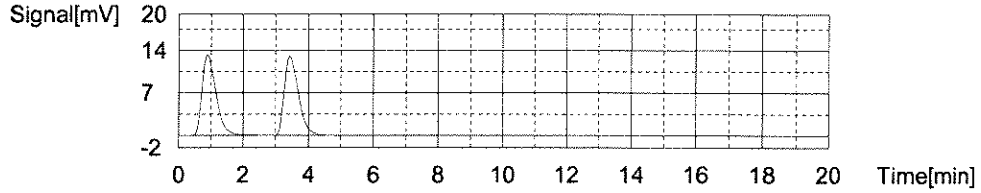
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.767 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	39.77	3.782mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:16:35 PM
2	39.44	3.751mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:19:14 PM

Mean Area 39.61
Mean Conc. 3.767mg/L



Sample

Sample Name: SO5303-8
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

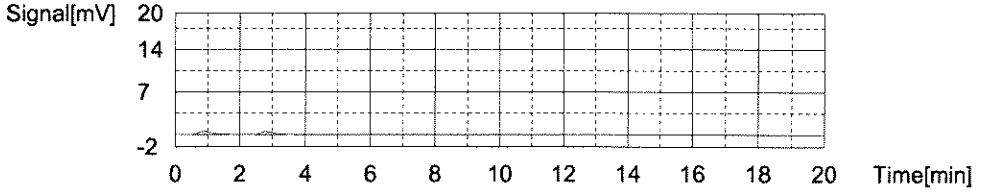
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1042 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.176	0.1118mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:28:00 PM
2	1.015	0.09653mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:30:04 PM

Mean Area 1.096
Mean Conc. 0.1042mg/L



Sample

Sample Name: SO5454-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

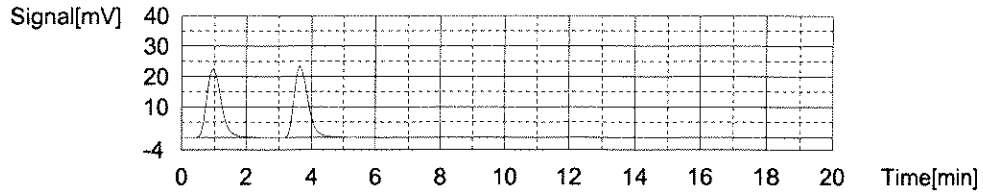
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:6.630 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	69.72	6.631mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:39:39 PM
2	69.71	6.630mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:42:36 PM

Mean Area 69.72
Mean Conc. 6.630mg/L



Sample

Sample Name: SO5494-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

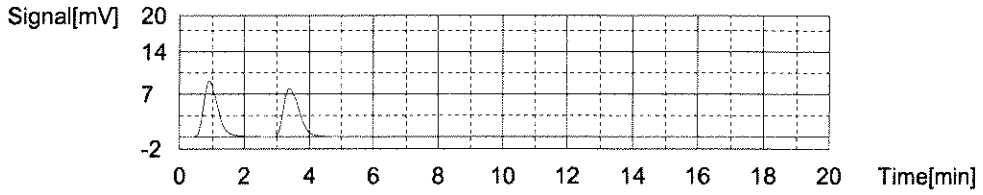
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.551 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.14	2.581mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:51:56 PM
2	26.50	2.520mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:54:37 PM

Mean Area 26.82
Mean Conc. 2.551mg/L



Sample

Sample Name: SO5506-6
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

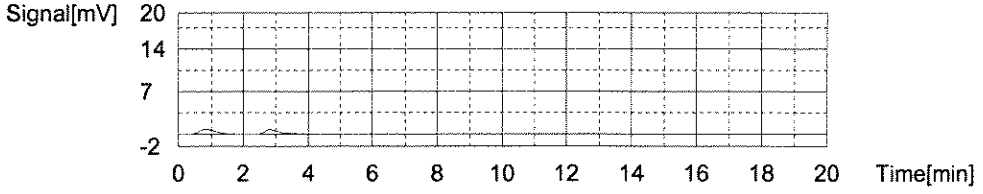
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1851 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.052	0.1951mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:03:26 PM
2	1.841	0.1751mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:05:41 PM

Mean Area 1.947
Mean Conc. 0.1851mg/L



Sample

Sample Name: SO5512-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

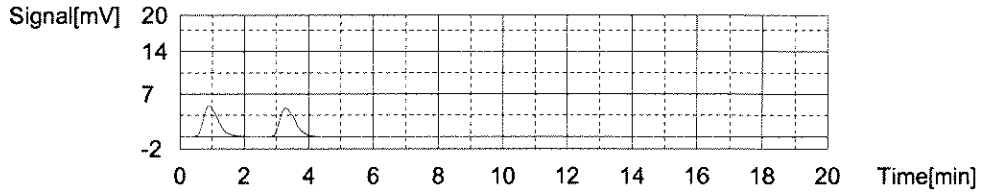
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.483 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.86	1.508mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:14:56 PM
2	15.32	1.457mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:17:28 PM

Mean Area 15.59
Mean Conc. 1.483mg/L



Sample

Sample Name: SO5556-2
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

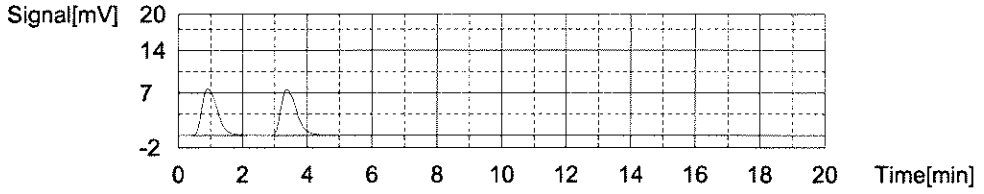
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.414 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.48	2.423mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:26:48 PM
2	25.29	2.405mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:29:30 PM

Mean Area 25.39
Mean Conc. 2.414mg/L



Sample

Sample Name: SO5557-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

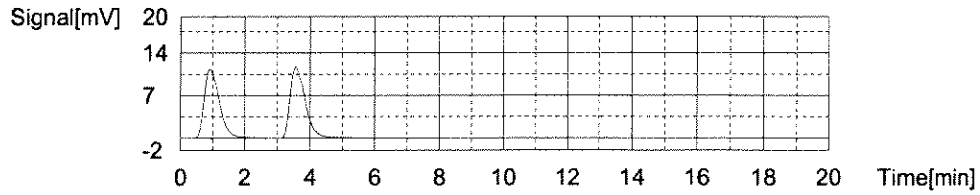
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.556 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.34	3.551mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:39:02 PM
2	37.44	3.561mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:41:51 PM

Mean Area 37.39
Mean Conc. 3.556mg/L



Sample

Sample Name: SO5557-3
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

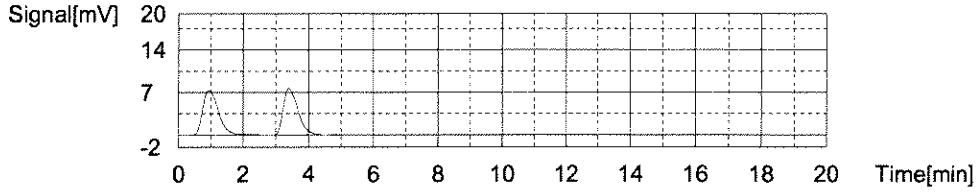
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.327 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	24.73	2.352mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:51:13 PM
2	24.21	2.302mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:53:49 PM

Mean Area 24.47
Mean Conc. 2.327mg/L



Control Sample

Sample Name: CCV
Sample ID: <Untitled>
Method: CCV DOUBLE INJECTION.tpl
Chk. Result Control value: 97.00 / Control within range!

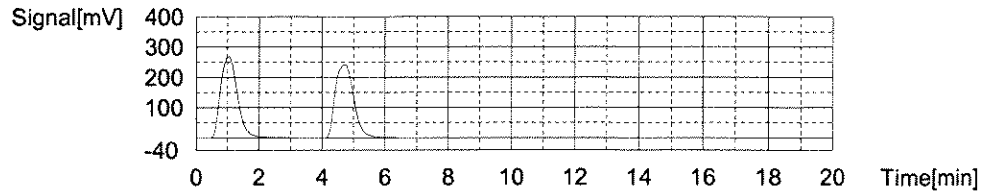
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:97.00 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1023	97.29mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 9:04:21 PM
2	1017	96.72mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 9:08:03 PM

Mean Area 1020
Mean Conc. 97.00mg/L



Control Sample

Sample Name: BLANK
Sample ID: <Untitled>
Method: BLANK DOUBLE INJECTION.tpl
Chk. Result Control value: 0.000 / Control within range!

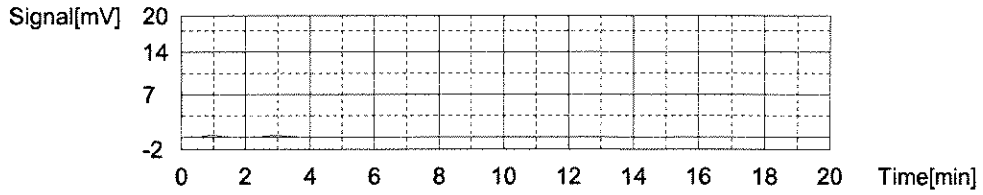
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:0.000 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.000mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 9:16:50 PM
2	0.000	0.000mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 9:18:56 PM

Mean Area 0.000
Mean Conc. 0.000mg/L



Instr.Information

System	TOC-Vcph / ASI-V
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Cal. Curve

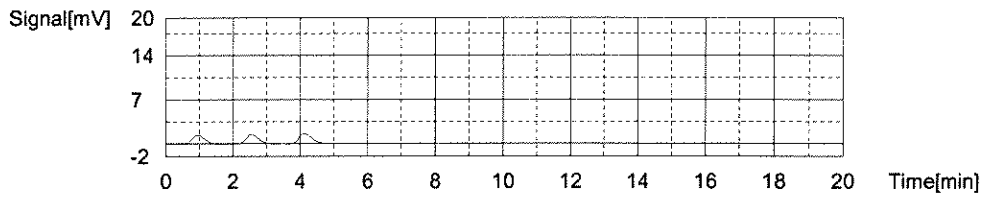
Sample Name:	Untitled
Sample ID:	Untitled
Cal. Curve:	toc aq cal 072321.2021_07_23_11_47_50.cal

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.743	50uL	1	*******		7/23/2021 11:56:00 AM
2	3.894	50uL	1	*******		7/23/2021 12:00:13 PM
3	4.231	50uL	1	*******	E	7/23/2021 12:04:26 PM

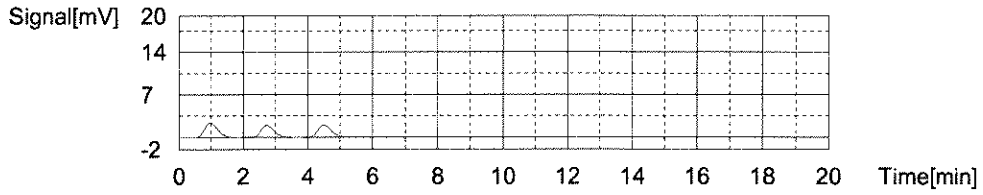
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 3.819



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.081	50uL	1	*******	E	7/23/2021 12:13:01 PM
2	5.925	50uL	1	*******		7/23/2021 12:17:23 PM
3	5.824	50uL	1	*******		7/23/2021 12:21:43 PM

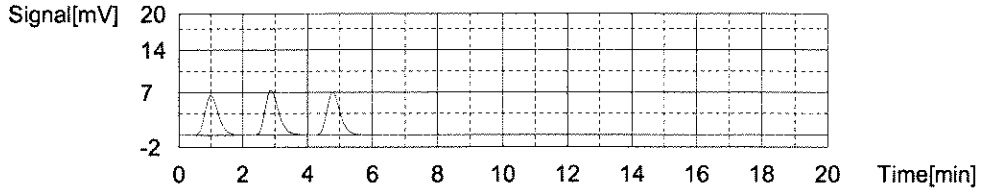
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 5.875



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	19.47	50uL	1	*******		7/23/2021 12:30:26 PM
2	21.83	50uL	1	*******	E	7/23/2021 12:34:57 PM
3	20.53	50uL	1	*******		7/23/2021 12:39:28 PM

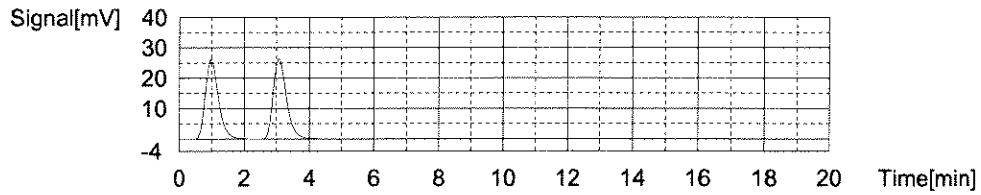
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 20.00



Conc: 20.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	73.99	50uL	1	*******		7/23/2021 12:48:23 PM
2	74.91	50uL	1	*******		7/23/2021 12:53:11 PM

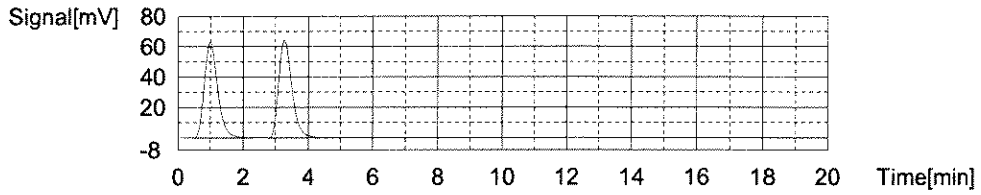
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 74.45



Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	180.8	50uL	1	*******		7/23/2021 1:02:19 PM
2	180.2	50uL	1	*******		7/23/2021 1:07:15 PM

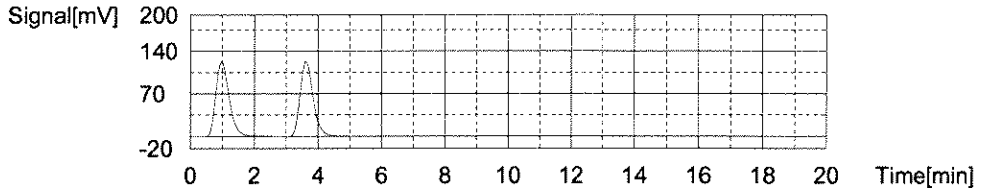
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 180.5



Conc: 100.0mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	355.3	50uL	1	*******		7/23/2021 1:16:42 PM
2	356.8	50uL	1	*******		7/23/2021 1:21:47 PM

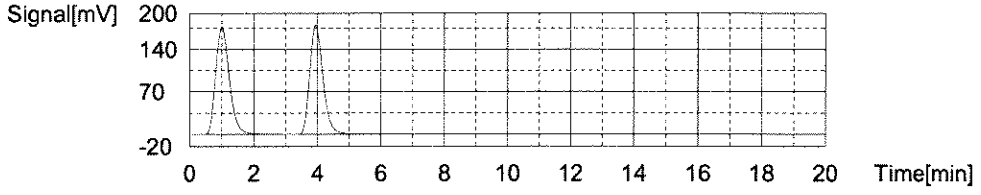
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 356.1



Conc: 150.0mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	525.6	50uL	1	*******		7/23/2021 1:31:32 PM
2	533.6	50uL	1	*******		7/23/2021 1:36:48 PM

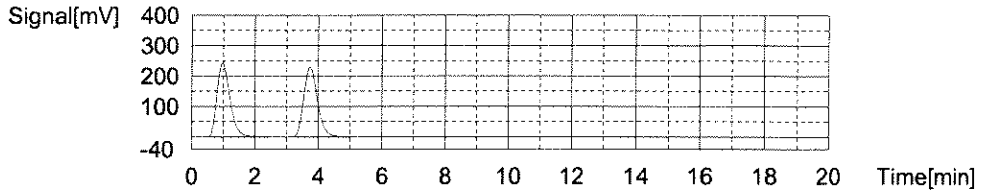
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 529.6



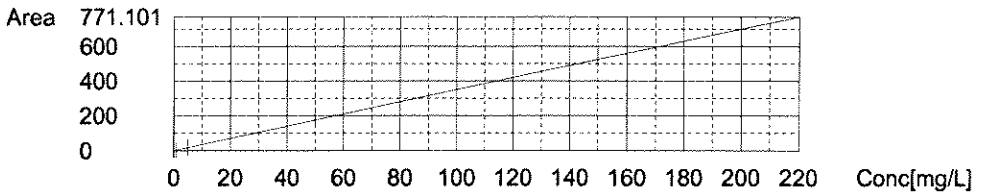
Conc: 200.0mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	700.5	50uL	1	*******		7/23/2021 1:46:20 PM
2	706.3	50uL	1	*******		7/23/2021 1:51:40 PM

Acid Add.	1.500%
Sp. Time	90.00sec
Mean Area	703.4



Slope:	3.505
Intercept	0.000
r^2	0.999978



WET CHEMISTRY BATCH REPORT
Aug 26 2021, 10:12 am
Batch: WG305135 Run ID 1: R575269 Run ID 2: NONE

Parameter: Alkalinity

Prep Date: N/A

Date Analyzed: 25-AUG-21

Prep Method: N/A

Analyst Initials: ZL

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5494-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	68.432	68. mg/L	NA	5	0.23	5.0		
SO5512-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	126.495	130 mg/L	NA	5	0.23	5.0		
SO5523-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	16.295	16. mg/L	NA	5	0.23	5.0		
SO5557-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	182.201	180 mg/L	NA	5	0.23	5.0		
SO5557-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	196.823	200 mg/L	NA	5	0.23	5.0		
WG305135-1	MBLANK	STDM 2320B	50.0mL	50.0mL	1	1.607	J1.6 mg/L	NA	5	0.23	5.0		
WG305135-2	LCS	STDM 2320B	50.0mL	50.0mL	1	135.321	140 mg/L	NA	5	0.23	5.0		113
WG305135-3	MS	STDM 2320B	50.0mL	50.0mL	1	209.938	210 mg/L	NA	5	0.23	5.0		82
WG305135-4	LCSD	STDM 2320B	50.0mL	50.0mL	1	134.492	130 mg/L	NA	5	0.23	5.0	1	112

Comments:

SO5512-1	Anions please report Cl & SO4.
WG305135-1	SO5512-1
WG305135-2	SO5512-1
WG305135-3	SO5512-1
WG305135-4	SO5512-1

Entered by: ZL Date: 8/26/21 Accepted by: ZF Date: 8/26/21

Katahdin Analytical Services 5000108

Start time:	8/25/2021 9:05						
Results							
No.	Comment / ID	Start time	Rx	Result	Unit	Name	RECOVERY
1/4	CCV	8/25/2021	R1 =	72.762	mg/L	P Alkalinity- pH8.2	
			R2 =	134.968	mg/L	Total Alkalinity	107.97%
			R3 =	10.293	pH	pH	
			R4 =	20.4	oC	TEMPERATURE	
2/4	CCB	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	1.607	mg/L	Total Alkalinity	
			R3 =	5.408	pH	pH	
			R4 =	20.9	oC	TEMPERATURE	
3/4	LCS	8/25/2021	R1 =	106.626	mg/L	P Alkalinity- pH8.2	
			R2 =	135.321	mg/L	Total Alkalinity	
			R3 =	10.655	pH	pH	
			R4 =	20.6	oC	TEMPERATURE	
4/4	LCSD	8/25/2021	R1 =	95.511	mg/L	P Alkalinity- pH8.2	
			R2 =	134.492	mg/L	Total Alkalinity	
			R3 =	10.651	pH	pH	
			R4 =	20.6	oC	TEMPERATURE	
1/8	SO5494-1	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	68.432	mg/L	Total Alkalinity	
			R3 =	6.229	pH	pH	
			R4 =	14.6	oC	TEMPERATURE	
2/8	SO5512-1	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	126.495	mg/L	Total Alkalinity	
			R3 =	5.936	pH	pH	
			R4 =	14	oC	TEMPERATURE	
3/8	SO5512-1 MS	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	209.938	mg/L	Total Alkalinity	
			R3 =	6.386	pH	pH	
			R4 =	14.8	oC	TEMPERATURE	
4/8	SO5523-1	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	16.295	mg/L	Total Alkalinity	
			R3 =	6.256	pH	pH	
			R4 =	15.2	oC	TEMPERATURE	
5/8	SO5557-1	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	182.201	mg/L	Total Alkalinity	
			R3 =	6.719	pH	pH	
			R4 =	14.8	oC	TEMPERATURE	
6/8	SO5557-3	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	196.823	mg/L	Total Alkalinity	
			R3 =	6.105	pH	pH	
			R4 =	15.6	oC	TEMPERATURE	
7/8	CCV	8/25/2021	R1 =	72.648	mg/L	P Alkalinity- pH8.2	
			R2 =	129.996	mg/L	Total Alkalinity	104.00%
			R3 =	10.259	pH	pH	
			R4 =	20.4	oC	TEMPERATURE	

8/8	CCB	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	1.614	mg/L	Total Alkalinity	
			R3 =	5.422	pH	pH	
			R4 =	21	oC	TEMPERATURE	
Start time:	8/25/2021 8:50						
Results							
No.	Comment / ID	Start time	Rx	Result	Unit	Name	
Calibration data							
	Number of segm	1					
	Slope	-57.28 mV/pH					
	Zero point	6.970 pH					
	Calibration temp	20.6 oC					

WG305135 R575269

KATAHDIN ANALYTICAL SERVICES

ALKALINITY, BICARBONATE, CARBONATE, FREE CO2 - DL 25 AUTOTITRATOR

Analysis: EPA 310.1 SM2320B **Calculations:** SM 4500-CO2 D

pH Probe ID: DGH-SC	
Alkalinity Acid Reagent: W20286	**Buffer pH 4 ID:** SWL 4740
Acid Concentration: 0.02N	**Buffer pH 7 ID:** 4739
Alkalinity Check Standard: W20260 TV=125mg/L	**Buffer pH 10 ID:** 4788
Alkalinity MS: W20307 TV=120mg/L	**Pipette IDs:** W11

Sample ID	Run #	Volume (mL)	Sample ID	Run #	Volume (mL)	Comments - Must indicate which sample
ICV	1	50				
CCB	2					
LCS	3					
LCSD	4					
S494-1	1	50				
S512-1	2	2				
-1MS	3	44				
S523-1	4	50				
S557-1	5					
-3	6					
CCV	7					
CCB	8					
	ZL					
	8/26/21					

Analyst: ZL/JL **Date:** 8/25/21

Checked By: ZF **Date:** 8/26/21

WET CHEMISTRY BATCH REPORT
Aug 24 2021, 11:34 am
Batch: WG304987 Run ID 1: R575105 Run ID 2: NONE

Parameter: Chemical Oxygen Demand
Prep Date: N/A

Date Analyzed: 23-AUG-21
Prep Method: N/A

Analyst Initials: JL
Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5546-1	SAMP	EPA 410.4	2.00mL	2.00mL	1	85.8	86. mg/L	NA	15	3.1	15.		
WG304987-1	MBLANK	EPA 410.4	2.00mL	2.00mL	1	-.02	U10. mg/L	NA	15	3.1	15.		
WG304987-2	LCS	EPA 410.4	2.00mL	2.00mL	1	74.3	74. mg/L	NA	15	3.1	15.		99

Comments:

WG304987-1 SO5546-1
WG304987-2 SO5546-1

Entered by: JL Date: 8/25/21 Accepted by: ZF Date: 8/24/21

Katahdin Analytical Services 5000112

WET CHEMISTRY BATCH REPORT
Aug 24 2021, 11:34 am
Batch: WG304988 Run ID 1: R575106 Run ID 2: NONE

Parameter: COD-Color
Prep Date: N/A

Date Analyzed: 23-AUG-21
Prep Method: N/A

Analyst Initials: JL
Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5463-1	SAMP	SM 5220	2.00mL	2.00mL	1	15	U15. mg/L	NA	15	5.7	15.		
SO5463-2	SAMP	SM 5220	2.00mL	2.00mL	1	3.9	U15. mg/L	NA	15	5.7	15.		
SO5512-1	SAMP	SM 5220	2.00mL	2.00mL	1	-1.5	U15. mg/L	NA	15	5.7	15.		
SO5557-1	SAMP	SM 5220	2.00mL	2.00mL	1	3.5	U15. mg/L	NA	15	5.7	15.		
SO5557-3	SAMP	SM 5220	2.00mL	2.00mL	1	-6.2	U15. mg/L	NA	15	5.7	15.		
WG304988-1	MBLANK	SM 5220	2.00mL	2.00mL	1	-.2	U10. mg/L	NA	15	5.7	15.		
WG304988-2	LCS	SM 5220	2.00mL	2.00mL	1	74.3	74. mg/L	NA	15	5.7	15.		99
WG304988-3	MS	SM 5220	1.50mL	2.00mL	1.3	78.7	100 mg/L	NA	15	7.5	20.		105
WG304988-4	DUP	SM 5220	2.00mL	2.00mL	1	3.9	U15. mg/L	NA	15	5.7	15.	NC	

Comments:

SO5463-1	Anions report Cl & SO4.
SO5463-2	MS/MSD, Anions report Cl & SO4.
SO5512-1	Anions please report Cl & SO4.
WG304988-1	SO5463-2
WG304988-2	SO5463-2
WG304988-3	SO5463-2
WG304988-4	SO5463-2

Entered by: JL Date: 8/24/21 Accepted by: ZF Date: 8/25/21

Katahdin Analytical Services 5000113

CHEMICAL_OXYGEN_DEMAND - LOW LEVEL (Closed Reflux, Twist Tubes)

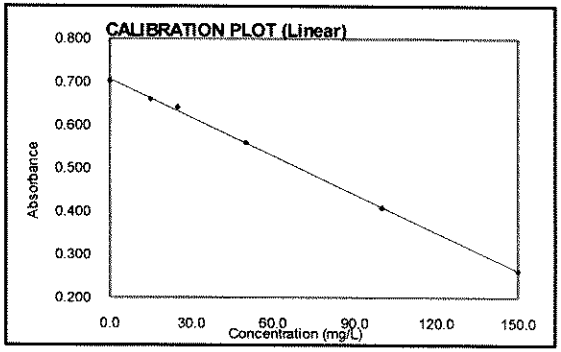
Method (Check one): SM5220D-11 E410.4

CALIBRATION INFORMATION

Cal. Anal. Date: 6-30-21
Calib. Analyst: KD
Stock Std. ID: W19395
Stock Std. Conc. (mg/L): 1000

Standard Name		Vol. Stock Added (ml)	Final Vol. (mL)	Std. Conc. (mg/L)	Meas. Abs.
Calib. Blank		0.000	2	0.0	0.703
Std. 1		0.030	2	15.0	0.660
Std. 2		0.050	2	25.0	0.642
Std. 3		0.100	2	50.0	0.560
Std. 4		0.200	2	100.0	0.409
Std. 5		0.300	2	150.0	0.262

No. of points:	6
Corr. Coeff. (R):	**0.9996285368702**
Slope (m):	-0.002968241206
Intercept (b):	0.7075336683417



SAMPLE ANALYSIS

Analyst: JL
Analysis Date: 23-Aug-21
CCV Stock Std. ID / Conc. (mg/L): W19873 / 50
LCS Stock Std. ID / Conc. (mg/L): W19875 / 75

Sample ID	Analyst	Date (14-Mar-13)	Time (13:30	Sample Type	Initial Vol. (mL)	Final Vol. (mL)	Spike Added (mg/L)	Abs. @ 420 nm		Conc in FV (mg/L)	Conc in IV (mg/L)	Reported Conc. (mg/L)	Rcvy (%)	DUP RPD (%)
CCV	JL	23-Aug-21	15:29	CCV	2.000	2.000	50	0.559		50.0	50.0	50.0	100.1%	
CCB	JL	23-Aug-21		BLANK	2.000	2.000		0.708		-0.2	-0.2	< 15.0		
LCS	JL	23-Aug-21		LCS	2.000	2.000	75	0.487		74.3	74.3	74.3	99.1%	
5422-1	JL	23-Aug-21		Sample	2.000	2.000		0.140		191.2	191.2	191.2		
5463-1	JL	23-Aug-21		Sample	2.000	2.000		0.663		15.0	15.0	15.0		
-2	JL	23-Aug-21		Sample	2.000	2.000		0.696		3.9	3.9	< 15.0		
-2 DUP	JL	23-Aug-21		Sample	2.000	2.000		0.696		3.9	3.9	< 15.0		
-2 MS	JL	23-Aug-21		Sample	~~2.000~~	2.000	100	0.474		78.7	78.7	78.7		
5512-1	JL	23-Aug-21		Sample	2.000	2.000		0.712		-1.5	-1.5	< 15.0		
5557-1	JL	23-Aug-21		Sample	2.000	2.000		0.697		3.5	3.5	< 15.0		
5546-1	JL	23-Aug-21		Sample	2.000	2.000		0.453		85.8	85.8	85.8		
5557-3	JL	23-Aug-21		Sample	2.000	2.000		0.726		-6.2	-6.2	< 15.0		
CCV	JL	23-Aug-21		CCV	2.000	2.000	50	0.570		46.3	46.3	46.3	92.7%	
CCB	JL	23-Aug-21	15:35	BLANK	2.000	2.000		0.705		0.9	0.9	< 15.0		

Katahdin Analytical Services 5000114

KATAHDIN ANALYTICAL SERVICES

CHEMICAL OXYGEN DEMAND		EPA Method 410.4	PQL = 15 mg/L
COD Vials			
Low Level: ✓	High Level:	Mfr.: Env. Express	Lot ID: SWL4793
Digestion Start Time: 1304		End Time: 1504	Pipette IDs: W7
COD Digestion Block Start Temp.: 148		End Temp.: 151.5	
Calibration Date:		Spectrophotometer Used: FOOD #1	

Standard	True Value (mg/L)	Source Std. ID	Source Std. Added (mL)
CCV	50	W21033	2
LCS	75	W21035	2
MS	100	W21034	.5

Notes: WG364987 - E4104 R575105
WG364988 - STNCOD

KAS Sample ID	Analysis Time	Initial Vol (mL)	Final Vol (mL)	Abs @	Comments
CCV	1529	2	2	.559	
CCB				.708	
LCS				.487	
5422-1				.140	
5463-1				.603	
-2				.696	
-2DUP				.696	
-2MS				.474	
5512				.712	
5517-1				.697	
5546-1				.453	
5557-3				.726	
CCV				570	
CCB	1535			.705	

JL 8/23/21

ANALYST: JL	DATE: 8/23/21
REVIEWED BY: ZF	DATE: 8/24/21

WET CHEMISTRY BATCH REPORT
Aug 24 2021, 11:21 am
Batch: WG304926

Parameter: Solids-Filterable Residue

Prep Date: 23-AUG-21

Date Analyzed: 24-AUG-21

Prep Method: STDM 2540C

Analyst Initials: JJ

Prep Chemist: JJ

Sample	Samp Type	Method	Tare Amt.	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5506-6	SAMP	STDM 2540C	102.2917g		102.3609g	1	692	690 mg/L	NA	10	5.02	10.		
SO5512-1	SAMP	STDM 2540C	102.6212g		102.6454g	1	242	240 mg/L	NA	10	5.02	10.		
SO5556-2	SAMP	STDM 2540C	87.93400g		87.99700g	1	630	630 mg/L	NA	10	5.02	10.		
SO5557-1	SAMP	STDM 2540C	88.83130g		88.85850g	1	272	270 mg/L	NA	10	5.02	10.		
SO5557-3	SAMP	STDM 2540C	80.63630g		80.66460g	1	283	280 mg/L	NA	10	5.02	10.		
WG304926-1	MBLANK	STDM 2540C	89.13350g		89.13290g	1	-6	U8.0 mg/L	NA	10	5.02	10.		
WG304926-2	LCS	STDM 2540C	85.52910g		85.59980g	1	707	710 mg/L	NA	10	5.02	10.		94
WG304926-3	LCSD	STDM 2540C	91.07390g		91.14410g	1	702	700 mg/L	NA	10	5.02	10.	1	94
WG304926-4	DUP	STDM 2540C	100.1774g		100.2055g	1	281	280 mg/L	NA	10	5.02	10.	1	

Comments:

SO5512-1	Anions please report Cl & SO4.
SO5556-2	Anions= NO2, NO3, SO4, CL
WG304926-1	SO5557-3
WG304926-2	SO5557-3
WG304926-3	SO5557-3
WG304926-4	SO5557-3

Entered by: JJ Date: 8/24/21 Accepted by: ZF Date: 8/24/21

Katahdin Analytical Services 5000116

WG3049926
R575102

KATAHDIN ANALYTICAL SERVICES, LLC

TOTAL DISSOLVED SOLIDS/TOTAL SUSPENDED SOLIDS

Total Disolved Solids: EPA 160.1____ Total Dissolved Solids: SM 2540C ✓ PQL: 10mg/L

Total Suspended Solids: EPA 160.2 Total Suspended Solids: SM 2540D PQL: 4mg/L

Aqueous Solids LCS Sand ID/Lot# W20284

Filter Lot # SWL 4792

ASTM Class Weights

Balance ID:

True WT (g)	Initial WT (g)	Final WT (g)
0.1000	0.1000	0.0999
1.0000	1.0001	0.9996
10.0000	9.9999	10.0000
100.0000	100.0001	100.0001

Notes:

Oven Temperatures (C)

TDS: 180 +/- 2°C, TSS: 103 - 105 °C

Oven ID: 02

In Temp. 180	Date: 8/23/21	Time: 15:50
Out Temp. 180	Date: 8/24/21	Time: 6:50
In Temp. 180	Date: 8/24/21	Time: 8:25
Out Temp. 180	Date: 8/24/21	Time: 9:35
In Temp.	Date:	Time:
Out Temp.	Date:	Time:

KAS Sample ID	Sample Volume (ml)	Time of Initial Aliquot	Filter or Dish ID	Filter or Dish Wt. (g)	Dry 1 Dish/Filter + Sample Residue Wt. (g)	Dry 2 Dish/Filter + Sample Residue Wt. (g)	Time of Final Weighing (Analysis)
Blank	~~250~~ 180	10:06	WS1	89.1335	89.1336	89.1329	11:10
LCS	↓	↓	AL8	85.5291	85.5998	85.5998	↓
LCSD	↓	↓	POF	91.0739	91.1440	91.1441	↓
S055O6-6	↓	↓	W33	102.2917	102.3614	102.3609	↓
S05512-1	↓	↓	J741	102.6212	102.6461	102.6454	↓
S05556-2	↓	↓	BP6	87.9340	87.9976	87.9970	↓
S05557-1	↓	↓	AL2	88.8313	88.8590	88.8585	↓
-3	↓	↓	AL11	80.6363	80.6648	80.6646	↓
-3 DUP	↓	10:22	W31	100.1774	100.2052	100.2055	11:15

8/23

Analyst: JJ Date: 8/23/21

Checked By: ZF Date: 8/24/21

WET CHEMISTRY BATCH REPORT
Aug 27 2021, 09:50 am
Batch: WG304865 Run ID 1: R575350 Run ID 2: R575351

Parameter: Nitrate As N
Prep Date: N/A

Date Analyzed: 20-AUG-21
Prep Method: N/A

Analyst Initials: SS
Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5506-6	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050		
SO5512-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050		
SO5519-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	5	-.1004	U0.25 mg/L	NA	.05	0.076	0.25		
SO5556-2	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050		
SO5557-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	.0056	U0.050 mg/L	NA	.05	0.015	0.050		
SO5557-3	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	-.0252	U0.050 mg/L	NA	.05	0.015	0.050		
WG304865-1	MBLANK	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.025 mg/L	NA	.05	0.015	0.050		
WG304865-2	LCS	EPA 353.2	5.0000mL	5.0000mL	1	.953	0.95 mg/L	NA	.05	0.015	0.050		95
WG304865-4	DUP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050	NC	
WG304865-5	MS	EPA 353.2	5.0000mL	5.0000mL	1	.239	0.24 mg/L	NA	.05	0.015	0.050		48

Comments:

SO5512-1	Anions please report Cl & SO4.
SO5556-2	Anions= NO2, NO3, SO4, CL
WG304865-1	SO5506-6
WG304865-2	SO5506-6
WG304865-3	SO5506-6
WG304865-4	SO5506-6
WG304865-5	SO5506-6

Entered by: SS Date: 8/27/21 Accepted by: ZF Date: 8/27/21

Katahdin Analytical Services 5000118

WET CHEMISTRY BATCH REPORT
Aug 27 2021, 09:50 am
Batch: WG304865 Run ID 1: R575350 Run ID 2: R575351

Parameter: Nitrite As N

Prep Date: N/A

Date Analyzed: 20-AUG-21

Prep Method: N/A

Analyst Initials: SS

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5506-6	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	*-.0105	U0.050 mg/L	NA	.05	0.0032	0.050		
SO5556-2	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	-.0225	U0.050 mg/L	NA	.05	0.0032	0.050		
WG304865-1	MBLANK	EPA 353.2	5.0000mL	5.0000mL	1	-.0246	U0.025 mg/L	NA	.05	0.0032	0.050		
WG304865-3	LCS	EPA 353.2	5.0000mL	5.0000mL	1	1	1.0 mg/L	NA	.05	0.0032	0.050		100
WG304865-4	DUP	EPA 353.2	5.0000mL	5.0000mL	1	-.011	U0.050 mg/L	NA	.05	0.0032	0.050	NC	
WG304865-5	MS	EPA 353.2	5.0000mL	5.0000mL	1	.299	0.30 mg/L	NA	.05	0.0032	0.050		60

Comments:

SO5512-1	Anions please report Cl & SO4.
SO5556-2	Anions= NO2, NO3, SO4, CL
WG304865-1	SO5506-6
WG304865-2	SO5506-6
WG304865-3	SO5506-6
WG304865-4	SO5506-6
WG304865-5	SO5506-6

Entered by: SS Date: 8/27/21 Accepted by: ZF Date: 8/27/21

Katahdin Analytical Services 5000119

KATAHDIN ANALYTICAL SERVICES, LLC.
Wet Chemistry Analysis Run Information Sheet

Analyte: NO3, NO2, and NO3+NO2	**Analyst:** SS
Instrument: LACHAT	**Analysis Date:** 8/20/21

Were pHs of all samples adjusted to 5-9 prior to analysis?

Circle one: (Yes) No **pH Paper Lot ID:** 6102002

Were all samples checked for the presence of chlorine prior to analysis?

Circle one: (Yes) No

Analytical Method (Check all that apply):

☑ EPA 353.2 ☐ SM 4500 F ☐ Other

WG304865 → R575350

Reagent Information:

Reagent Name	Reagent ID	Expiration Date
Ammonium Chloride Buffer	**W20296**	**9/13/2021**
Sulfanilamide Color Reagent	**W20288**	**9/11/2021**
Carrier	**DI Water**	
Cadmium Reduction Column	**S/N: SWL4699**	

Standards Information:

Standard Name	Concentration (mg/L)	ID	Expiration Date
Nitrate CCV	0.5	W20300	9/17/21
Nitrite CCV	0.5	W20252	9/5/21
Nitrate ICV/LCS	1.0	W20203	8/20/21
Nitrite ICV/LCS	1.0	W20241	8/30/21
Standard #1	2.0	W20264	9/6/21
Standard #2	1.0	W20265	9/6/21
Standard #3	0.5	W20252	9/5/21
Standard #4	0.25	W20266	9/6/21
Standard# 5	0.05	W20267	9/6/21
Standard #6	0.0	DI water	N/A
Nitrate Standard	100.0	W20037	5/27/2022
Nitrite Standard	100.0	W19308	9/3/2021

Notes:

1. Matrix Spiking: To 5mL Sample Alliquot add 0.025 mL of Nitrate Standard and 0.025mL Nitrite Standard

Δ Sample labels are verified. SS 8/20/21

Comments: Pipettes: W5, W3, W9, W8

MS: 200uL, 5mL 5x, 10x, & 20x Dilutions: 1mL, 5mL

2x, 4x Dilutions: 5mL 25x, 50x, 100x, 200x Dilutions: 200uL, 5mL

250x, 500x, 1000x, 2000x, 2500x Dilutions: 200uL, 1ml, 5mL

*505519-1 was diluted upfront due to dark color. SS 8/27/21

Author: wetchem Date : 8/20/2021

Original Run Filename: OM_8-20-2021_12-42-14PM.OMN Created: 8/20/2021 12:42:14 PM
Original Run Author's Signature: [wetchem]
Current Run Filename: OM_8-20-2021_12-42-14PM.OMN Last Modified: 8/20/2021 1:11:35 PM
Current Run Author's Signature: [wetchem]
Description: Default New Run

Sample	Channel 1 NITRATE/NITRITE			Channel 2 NITRITE			Detection Time	MDF
	Conc. (mg/L)	Area (V.s)	Height (V)	Conc. (mg/L)	Area (V.s)	Height (V)		
STD 2.0	2.00	20.1	1.70	2.00	22.6	2.10	8/20/2021@12:43:17 PM	
STD 1.0	1.00	10.3	0.889	1.00	11.8	1.13	8/20/2021@12:44:26 PM	
STD .5	0.500	5.19	0.451	0.500	6.21	0.590	8/20/2021@12:45:37 PM	
STD .25	0.250	2.82	0.246	0.250	3.31	0.317	8/20/2021@12:46:47 PM	
STD.05	0.0500	0.572	0.0488	0.0500	0.655	0.0607	8/20/2021@12:47:59 PM	
STD 0.0	0.00	-0.0263	-1.44e-3	0.00	0.0418	2.36e-3	8/20/2021@12:49:10 PM	
CCV NO3	0.497	5.13	0.446	-0.0241	0.0342	1.64e-3	8/20/2021@12:52:16 PM	
Known Conc:	0.500			0.500				
Calibration:	Table/Fig. : 1			Table/Fig. : 2				
CCV NO2	0.505	5.21	0.456	0.526	6.23	0.593	8/20/2021@12:53:26 PM	
Known Conc:	0.500			0.500				
CCB	-0.0158	-0.0159	-7.65e-4	-0.0244	0.0306	2.17e-3	8/20/2021@12:54:39 PM	
Known Conc:	0.00			0.00				
BLANK	-0.0129	0.0135	1.45e-3	-0.0246	0.0282	2.06e-3	8/20/2021@12:55:50 PM	
Known Conc:	0.00			0.00				
NO3 LCS	0.953	9.70	0.847	-0.0245	0.0292	2.41e-3	8/20/2021@12:57:01 PM	
Known Conc:	1.00			1.00				
NO2 LCS	1.01	10.3	0.897	1.00	11.6	1.12	8/20/2021@12:58:10 PM	
Known Conc:	1.00			1.00				
SO5512-1	-0.0235	-0.0930	-6.93e-3	-1.44e-4	0.304	0.0247	8/20/2021@12:59:21 PM	
SO5519-1	0.0406	0.224	0.0164	0.141	0.623	0.0668	8/20/2021@1:00:31 PM	5.00
SO5506-6	-7.01e-3	0.0725	5.16e-3	-0.0105	0.187	0.0157	8/20/2021@1:01:42 PM	
SO5506-6 DUP	-6.49e-3	0.0777	5.58e-3	-0.0110	0.182	0.0149	8/20/2021@1:02:53 PM	
SO5506-6 MS	0.538	5.54	0.441	0.299	3.67	0.324	8/20/2021@1:04:04 PM	
CCV NO3	0.496	5.12	0.454	-0.0256	0.0175	1.32e-3	8/20/2021@1:07:09 PM	
Known Conc:	0.500			0.500				
CCV NO2	0.505	5.21	0.466	0.524	6.21	0.593	8/20/2021@1:08:18 PM	
Known Conc:	0.500			0.500				
CCB	-0.0162	-0.0202	-1.21e-3	-0.0275	-4.14e-3	1.68e-3	8/20/2021@1:09:31 PM	
Known Conc:	0.00			0.00				

99.4%
105.2%
99.2%
104.8%

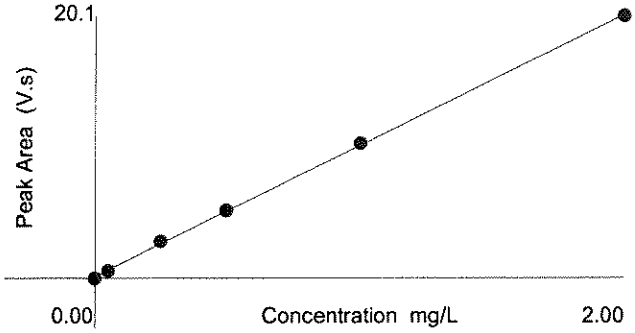
Table : 1 (NITRATE/NITRITE)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	2.00	1	20.1	1.70	0.0	0.5	1.99	8/20/2021	12:43:17 PM
2	1.00	1	10.3	0.889	0.0	-1.4	1.01	8/20/2021	12:44:26 PM
3	0.500	1	5.19	0.451	0.0	-0.7	0.503	8/20/2021	12:45:37 PM
4	0.250	1	2.82	0.246	0.0	-6.3	0.267	8/20/2021	12:46:47 PM
5	0.0500	1	0.572	0.0488	0.0	11.4	0.0428	8/20/2021	12:47:59 PM
6	0.00	1	-0.0263	-1.44e-3			-0.0169	8/20/2021	12:49:10 PM

Author: wetchem

Date : 8/20/2021

Figure : 1 (NITRATE/NITRITE)



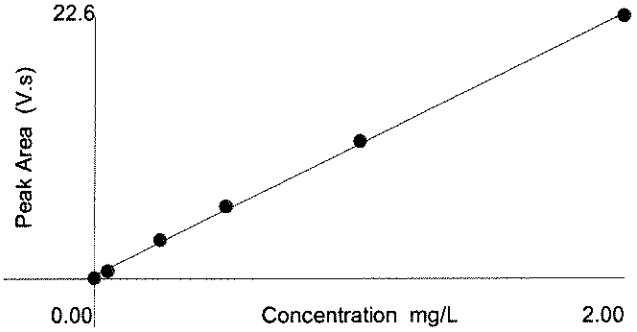
Area = 10.0 * Conc + 0.145
Conc = 0.0997 * Area - 0.0142
Correlation Coefficient (r) = 0.99984

Weighting : None

Table : 2 (NITRITE)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	2.00	1	22.6	2.10	0.0	0.9	1.98	8/20/2021	12:43:18 PM
2	1.00	1	11.8	1.13	0.0	-2.1	1.02	8/20/2021	12:44:28 PM
3	0.500	1	6.21	0.590	0.0	-4.5	0.524	8/20/2021	12:45:38 PM
4	0.250	1	3.31	0.317	0.0	-5.9	0.267	8/20/2021	12:46:49 PM
5	0.0500	1	0.655	0.0607	0.0	25.1	0.0310	8/20/2021	12:48:00 PM
6	0.00	1	0.0418	2.36e-3			-0.0234	8/20/2021	12:49:12 PM

Figure : 2 (NITRITE)



Area = 11.3 * Conc + 0.312
Conc = 0.0887 * Area - 0.0271
Correlation Coefficient (r) = 0.99955

Weighting : None

Author: wetchem Date : 8/20/2021

Original Run Filename: OM_8-20-2021_04-28-55PM.OMN Created: 8/20/2021 4:28:55 PM
Original Run Author's Signature: [wetchem]
Current Run Filename: OM_8-20-2021_04-28-55PM.OMN Last Modified: 8/20/2021 4:46:50 PM
Current Run Author's Signature: [wetchem]
Description: Default New Run

Sample	Channel 1 NITRATE/NITRITE			Channel 2 NITRITE			Detection Time	MDF
	Conc. (mg/L)	Area (V.s)	Height (V)	Conc. (mg/L)	Area (V.s)	Height (V)		
99.2% CCV NO3	0.496	5.11	0.456	-0.0246	0.0289	1.01e-3	8/20/2021@4:29:58 PM	
Known Conc:	0.500			0.500				
Calibration:	Table/Fig. : 1			Table/Fig. : 2				
104% CCV NO2	0.504	5.20	0.463	0.520	6.17	0.594	8/20/2021@4:31:08 PM	
Known Conc:	0.500			0.500				
CCB	-0.0167	-0.0248	-1.20e-3	-0.0245	0.0299	2.64e-3	8/20/2021@4:32:19 PM	
Known Conc:	0.00			0.00				
BLANK	-0.0124	0.0189	1.91e-3	-0.0251	0.0225	2.19e-3	8/20/2021@4:33:30 PM	
Known Conc:	0.00			0.00				
NO3 LCS	0.948	9.65	0.861	-0.0237	0.0391	2.58e-3	8/20/2021@4:34:39 PM	
Known Conc:	1.00			1.00				
NO2 LCS	1.00	10.2	0.909	1.00	11.6	1.12	8/20/2021@4:35:48 PM	
Known Conc:	1.00			1.00				
SS 8/20/21 -1 -3 SO5557 1035	8.83e-3	0.231	0.0199	3.20e-3	0.342	0.0293	8/20/2021@4:36:59 PM	
SO5557 1220	-0.0345	-0.203	-0.0158	0.0252	0.590	0.0465	8/20/2021@4:38:09 PM	
SO5556-2	-0.0188	-0.0456	-4.06e-3	-0.0225	0.0520	4.85e-3	8/20/2021@4:39:20 PM	
99.4% CCV NO3	0.497	5.13	0.463	-0.0280	-0.0103	-1.01e-3	8/20/2021@4:42:25 PM	
Known Conc:	0.500			0.500				
103.6% CCV NO2	0.503	5.19	0.467	0.518	6.14	0.596	8/20/2021@4:43:34 PM	
Known Conc:	0.500			0.500				
CCB	-0.0165	-0.0227	-1.34e-3	-0.0248	0.0257	1.31e-3	8/20/2021@4:44:46 PM	
Known Conc:	0.00			0.00				

Table : 1 (NITRATE/NITRITE)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	2.00	1	20.1	1.70	0.0	0.5	1.99	8/20/2021	12:43:17 PM
2	1.00	1	10.3	0.889	0.0	-1.4	1.01	8/20/2021	12:44:26 PM
3	0.500	1	5.19	0.451	0.0	-0.7	0.503	8/20/2021	12:45:37 PM
4	0.250	1	2.82	0.246	0.0	-6.3	0.267	8/20/2021	12:46:47 PM
5	0.0500	1	0.572	0.0488	0.0	11.4	0.0428	8/20/2021	12:47:59 PM
6	0.00	1	-0.0263	-1.44e-3			-0.0169	8/20/2021	12:49:10 PM

Figure : 1 (NITRATE/NITRITE)

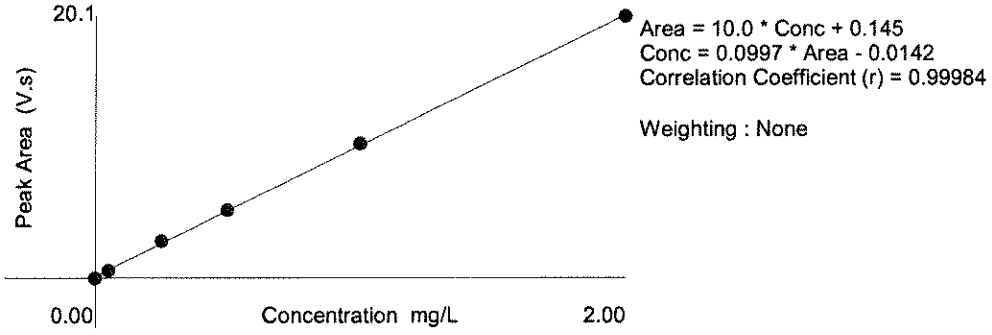
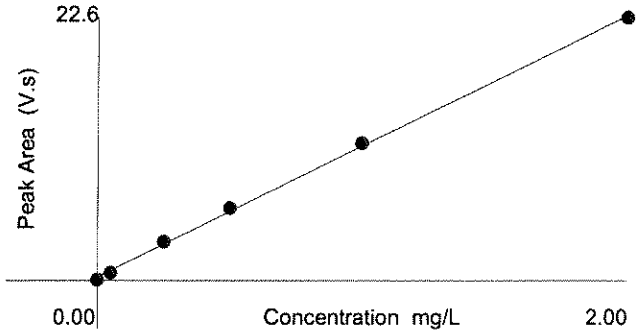


Table : 2 (NITRITE)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	2.00	1	22.6	2.10	0.0	0.9	1.98	8/20/2021	12:43:18 PM
2	1.00	1	11.8	1.13	0.0	-2.1	1.02	8/20/2021	12:44:28 PM
3	0.500	1	6.21	0.590	0.0	-4.5	0.524	8/20/2021	12:45:38 PM
4	0.250	1	3.31	0.317	0.0	-5.9	0.267	8/20/2021	12:46:49 PM
5	0.0500	1	0.655	0.0607	0.0	25.1	0.0310	8/20/2021	12:48:00 PM
6	0.00	1	0.0418	2.36e-3			-0.0234	8/20/2021	12:49:12 PM

Figure : 2 (NITRITE)



Area = 11.3 * Conc + 0.312
Conc = 0.0887 * Area - 0.0271
Correlation Coefficient (r) = 0.99955

Weighting : None

WET CHEMISTRY BATCH REPORT
Aug 25 2021, 02:24 pm
Batch: WG304847 Run ID 1: R575218 Run ID 2: NONE

Parameter: Total Biochemical Oxygen Demand

Prep Date: 20-AUG-21

Date Analyzed: 25-AUG-21

Prep Method: SM 5210B

Analyst Initials: JL

Prep Chemist: JL/SS

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5512-1	SAMP	SM 5210B	100.00mL	300.00mL	3	1.2	J3.6 mg/L	NA	2	0.70	6.0		
SO5519-1	SAMP	SM 5210B	2.6670mL	300.00mL	110	2.87	320 mg/L	NA	2	26.	220		
SO5544-1	SAMP	SM 5210B	0.58300mL	300.00mL	510	2.853	1500 mg/L	NA	2	120	1000		
SO5545-1	SAMP	SM 5210B	1.5000mL	300.00mL	200	2.095	420 mg/L	NA	2	47.	400		
SO5546-1	SAMP	SM 5210B	5.0000mL	300.00mL	60	.66	U120 mg/L	NA	2	14.	120		
SO5547-1	SAMP	SM 5210B	5.0000mL	300.00mL	60	3.37	200 mg/L	NA	2	14.	120		
SO5557-1	SAMP	SM 5210B	100.00mL	300.00mL	3	1.5	J4.5 mg/L	NA	2	0.70	6.0		
SO5557-3	SAMP	SM 5210B	100.00mL	300.00mL	3	1.76	J5.3 mg/L	NA	2	0.70	6.0		
WG304847-1	MBLANK	SM 5210B	300.00mL	300.00mL	1	.11	U1.0 mg/L	NA	2	0.23	2.0		
WG304847-2	LCS	SM 5210B	6.0000mL	300.00mL	50	4.396	220 mg/L	NA	2	12.	100		111
WG304847-3	MS	SM 5210B	0.25000mL	300.00mL	1200	4.05	4900 mg/L	NA	2	280	2400		95
WG304847-4	DUP	SM 5210B	2.0000mL	300.00mL	150	1.25	~~U300~~ 190 mg/L	NA	2	35.	300	53	

ZF 8/27/21

Comments:

SO5512-1	Anions please report Cl & SO4.
WG304847-1	SO5519-1
WG304847-2	SO5519-1
WG304847-3	SO5519-1
WG304847-4	SO5519-1

Entered by: JL Date: 8/25/21 Accepted by: ZF Date: 8/27/21

Katahdin Analytical Services 5000125

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] CBOD5 [ ]

Data Entry By: JL

R575218
WG304847

BOD5,mg/L=(DO consumed- Seed Correction Factor)* Total Volume in mL /Sample Volume in mL
DO consumed = Initial DO - Final DO
Total Volume = 300 mL
Volume of seed added to each sample including (LCSs and MS) in mL = 1

Sample ID	Seed Volume mL	Initial DO D1	Final DO D2	Cons. DO D1-D2	Seed Correction Factor	In Criteria?
Blank 1	0	8.04	7.93	0.11	N/A	Yes
Blank 2	0	8.03	7.91	0.12	N/A	Yes
Blank 3	0	8.09	7.79	0.3	N/A	No
Seed Control 1	1	8.13	6.98	1.15	1.15	No
Seed Control 2	2	8.01	5.68	2.33	1.17	1.17
Seed Control 3	4	7.86	3.10	4.76	1.19	1.19
Seed Control 4	6	8.18	0.89	7.29	1.22	No
			Mean Seed Correction Factor (SCF):			**1.18**

Blank: 0918 1300

LCS: 0925 1308

LCS Recovery Calculations

GGA Added (mL): 6 **LCS True Value (mg/L):** 198

LCS ID	Calc mg/L	% Recovery	Recovery Acceptance Limits (%): 84.6 TO 115.4	
LCS 1	227.13	114.7	LCS Within Criteria ?	Yes
LCS 2	213.63	107.9	LCS Within Criteria ?	Yes
LCS 3	218.63	110.4	LCS Within Criteria ?	Yes
Mean	219.79	111.0	LCS Within Criteria ?	Yes

Matrix Spike Recovery Calculations (75-125%)
Spike Recovery=(Seed Corrected DO MS-Seed Corrected DO Sample)/(Total mg Spike)

Katahdin Sample Number	Sample Volume (mL)	Sample BOD (mg/L)	Spk. Sample BOD (mg/L)	mL GGA Spike Added	MS True Value (mg/L)	Spike Recovery (%)
5519	0.25	315.83	4863.00	6	4752	95.7
					#DIV/0!	#DIV/0!
					#DIV/0!	#DIV/0!

All Data From This Batch Must Be Qualified As Follows:

LCS 1
LCS 2
LCS 3
Blank 1
Blank 2

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 X **CBOD5**

Data Entry By: JL

Sample Analysis								
Sample ID	**Sample Volume mL**	**Initial DO mg/L *(D1)***	**Final DO mg/L *(D2)***	**DO Cons. mg/L *(D1-D2)***	**Corrected DO cons. *(D1-D2-SCF)***	**Calc. BOD mg/L**	**DO consumed in Criteria?**	**Adjusted PQL**
LCS 1	6.000	8.37	2.65	5.72	4.54	227.13	Yes	100.0
LCS 2	6.000	8.01	2.56	5.45	4.27	213.63	Yes	100.0
LCS 3	6.000	8.37	2.82	5.55	4.37	218.63	Yes	100.0
Mean LCS Result	6.000	8.250	2.677	5.573	4.396	219.792	Yes	100.0
5512	1.000	7.93	6.93	1.00	-0.18	-53.25	No	600.0
0932 1311	2.000	8.15	6.89	1.26	0.08	12.38	No	300.0
	5.000	7.93	6.42	1.51	0.33	19.95	No	120.0
	10.000	8.19	6.61	1.58	0.40	12.08	No	60.0
	25.000	8.11	6.55	1.56	0.38	4.59	No	24.0
	50.000	7.67	6.04	1.63	0.45	2.72	No	12.0
	100.000	7.40	5.02	2.38	1.20	3.61	Yes	6.0
5519	0.250	8.10	6.53	1.57	0.39	471.00	No	2400.0
1107 1317	0.500	8.04	6.76	1.28	0.10	61.50	No	1200.0
	1.000 2.661	8.01	5.82	2.19	1.01, 2.87	303.75	Yes	600.0
	2.000	8.31	5.05	3.26	2.08	312.38	Yes	300.0
	5.000	8.02	1.32	6.70	5.52	331.35	Yes	120.0
	10.000	7.94	<1	6.94	5.76	172.88	No	60.0
	25.000	7.54	<1	6.54	5.36	64.35	No	24.0
1115 **MS** 1324	0.250	8.00	2.77	5.23	4.05	4863.00	Yes	2400.0
~~1111~~ **DUP** 1325	2.000	8.19	5.76	2.43	1.25	187.88	Yes	300.0
5544	0.100	7.78	6.40	1.38	0.20	607.50	No	6000.0
1437 1329	0.250 .583	7.78	5.57	2.21	1.03 2.853	1239.00	Yes	2400.0
	0.500	8.18	4.53	3.65	2.47	1483.50	Yes	1200.0
	1.000	7.89	1.65	6.24	5.06	1518.75	Yes	600.0
	2.000	7.84	<1	6.84	5.66	849.38	No	300.0
5545	0.100	7.81	6.77	1.04	-0.14	-412.50	No	6000.0
1442 1335	0.250	7.81	6.88	0.93	-0.25	-297.00	No	2400.0
	0.500	7.83	6.76	1.07	-0.11	-64.50	No	1200.0
	1.000 1.5	8.17	5.67	2.50	1.32 2.095	396.75	Yes	600.0
	2.000	8.03	3.98	4.05	2.87	430.88	Yes	300.0
1457 **5546** 1339	0.500	7.86	6.88	0.98	-0.20	-118.50	No	1200.0
	1.000	7.86	6.71	1.15	-0.03	-8.25	No	600.0
	2.000	7.69	6.49	1.20	0.02	3.38	No	300.0
	5.000	7.79	5.95	1.84	0.66	39.75	No	120.0
5547	0.250	7.75	7.37	0.38	-0.80	-957.00	No	2400.0
1508 1343	0.500	7.94	7.21	0.73	-0.45	-268.50	No	1200.0
	1.000	7.84	6.72	1.12	-0.06	-17.25	No	600.0
	2.000	8.07	6.17	1.90	0.72	108.38	No	300.0
	5.000	8.13	3.58	4.55	3.37	202.35	Yes	120.0
	10.000	7.86	<1	6.86	5.68	170.48	No	60.0
				0.00	-1.18	#DIV/0!	No	#DIV/0!

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] CBOD5 [ ]

Data Entry By: JL

Sample Analysis								
Sample ID	Sample Volume mL	Initial DO mg/L *(D1)*	Final DO mg/L *(D2)*	DO Cons. mg/L *(D1-D2)*	Corrected DO cons. *(D1-D2-SCF)*	Calc. BOD mg/L	DO consumed in Criteria?	Adjusted PQL
5557	1.000	8.00	6.96	1.04	-0.14	-41.25	No	600.0
1636 1350	2.000	8.16	7.12	1.04	-0.14	-20.63	No	300.0
	5.000	8.07	7.03	1.04	-0.14	-8.25	No	120.0
	10.000	7.76	6.63	1.13	-0.05	-1.43	No	60.0
	25.000	7.47	6.41	1.06	-0.12	-1.41	No	24.0
	50.000	7.35	6.04	1.31	0.13	0.79	No	12.0
	100.000	7.55	4.87	2.68	1.50	4.51	Yes	6.0
5557	1.000	7.83	7.03	0.80	-0.38	-113.25	No	600.0
1648 1358	2.000	7.90	7.06	0.84	-0.34	-50.63	No	300.0
	5.000	7.98	7.17	0.81	-0.37	-22.05	No	120.0
	10.000	7.57	6.71	0.86	-0.32	-9.53	No	60.0
	25.000	7.60	6.38	1.22	0.04	0.51	No	24.0
	50.000	7.23	6.01	1.22	0.04	0.26	No	12.0
	100.000	6.25	3.31	2.94	1.76	5.29	Yes	6.0
	300.000	2.97	<1	1.97	0.79	0.79	No	2.0
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

WG1304847

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.	pH Meter Calibration		Probe ID:		
Total BOD: SM5210B EPA 405.1	**PQL: 2.0 mg/L**	True Value	Lot ID	Actual Value	Accept? ± 0.05	
Carbonaceous BOD: SM5210B	**PQL: 2.0 mg/L**	4.01				
Glutamic Acid Std (GGA) ID: GGA 082021	GGA Preparation:	Seed Used Source ID and Amount:		7.00		
Nitirification Inhibitor ID:	0.15g Glucose ID:	LAWPCA:	1 mL	10.01		
Phosphate Bffr Soln. ID: W20097	SWL4207	SSD: ✓	1 mL ✓	DO Meter ID: B27869	DO Probe ID: 08608OMD	
$H_{14}MgO_{11}S$ ID: SWL4791	0.15 g Glutamic Acid ID:	$Na_2S_2O_3$ ID:		KI Paper ID: 14-860	pH Paper ID: LW2007	
Ferric Chloride Soln. ID: SWL4770	SWL4223	Starch Indicator ID:		Carboy ID: ~~11~~	1:50 H_2SO_4 ID:	
Calcium Chloride Soln. ID: SWL4757		Potassium Iodide Soln. ID:		Pipet IDs: W3, 7, 10, 13		
Acid 1 ID (A1):	Acid 2 ID (A2):	Base1 ID (B1):		Base 2 ID (B2):		

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *	
Blank		0918					T2		8.04	7.93	1300		
↓		19					432		8.03	7.91	01		
		20					~~2986~~		8.09	7.79	02		
1		0921					BP22		8.13	6.98	1303		
2		22					~~R22~~		8.01	5.68	04		
4		23					~~323~~		7.86	3.10	05		
6		24					298		8.18	~~2.05~~	1007	.89	
LCS		0925					399		8.37	~~2.56~~	08	2.65	
↓		26					H7		8.01	~~2.82~~	09	2.56	
		27					BP31		8.37	~~0.93~~	1310	2.82	
505512	Seres	~~0932~~	↓			N	97	1	7.93	6.~~93~~	11		
		33					6666	2	8.15	6.~~89~~	12		
		34					211	5	7.93	6.~~48~~	13		
		35					~~1321~~ 347	10	8.19	6.61	14		
		36					7127	25	8.11	6.~~55~~	15		
		37					T22	50	7.67	5.04	16		
		38	↓			↓	411	100	7.40	5.02	17		

↓ 8/25/21

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
S05519	Pineland	1107	J			N	1321	.25	8.10	6.53	1317	
	Potato	08	|			|	747	.5	8.04	6.76	18	
		09	|			|	911	1	8.01	5.82	19	
		10	|			|	047	2	8.31	5.05	20	
		13	|			|	057	5	8.02	1.32	21	
		13	|			|	1009	10	7.94	<1	22	
		14	|			|	396	25	7.54	<1	23	
	MS	1115	|			|	360	.25	8.00	2.77	1324	
	DUP	16	|			|	021	2	8.19	5.76	25	
S05544	Kerry	1437	J			N	170	.1	7.78	6.40	13:29	
		38	|			|	511	.25	7.78	5.57	30	
		38	|			|	343	.5	8.18	4.53	31	
		39	|			|	284	1	7.89	1.65	32	
		40	↓			↓	022	2	7.84	<1	33	
S05545	Inland	1442	J			N	75	.1	7.81	6.77	1335	
		43	|			|	376	.25	7.81	6.88	36	
		44	|			|	77m	.5	7.83	6.76	37	
		45	|			|	3025	1	8.17	5.67	38	
		46	↓			↓	381	2	8.03	3.98	39	

JZ 8/23/21

NOTES:

ANALYST 1 JZ	DATE 8/20/21
ANALYST 2 JZ KW	DATE 8/25/21
CHECKED BY: ZF	DATE 8/27/21

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

Katahdin Analytical Services 5000130

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.				pH Meter Calibration		Probe ID:		
Total BOD: SM5210B EPA 405.1			**PQL: 2.0 mg/L**		True Value	Lot ID	Actual Value	Accept? ± 0.05	
Carbonaceous BOD: SM5210B			**PQL: 2.0 mg/L**		4.01				
Glutamic Acid Std (GGA) ID: GGA	GGA Preparation:	Seed Used Source ID and Amount:			7.00				
Nitirification Inhibitor ID:	0.15g Glucose ID:	LAWPCA:	1 mL		10.01				
Phosphate Bffr Soln. ID:		SSD:	1 mL		DO Meter ID: B27869		DO Probe ID:		
$H_{14}MgO_{11}S$ ID:	0.15 g Glutamic Acid ID:	$Na_2S_2O_3$ ID:			KI Paper ID:		pH Paper ID:		
Ferric Chloride Soln. ID:		Starch Indicator ID:			Carboy ID:		1:50 H_2SO_4 ID:		
Calcium Chloride Soln. ID:		Potassium Iodide Soln. ID:			Pipet IDs:				
Acid 1 ID (A1):	Acid 2 ID (A2):	Base1 ID (B1):			Base 2 ID (B2):				

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
S05546	mmc	1457	✓			N	II	.5	7.86	6.88	1339	
	Surgery	58					D2	1	7.86	6.71	40	
		59					311	2	7.69	6.49	41	
		1500					AC	5	7.79	595	42	
S05547	mmc	1508	✓			N	732	.25	7.75	7.37	13 43	
	cancer	09					492	.5	7.94	7.21	44	
		10					9060	1	7.84	6.72	45	
		11					194	2	8.07	6.17	46	
		12					826	5	8.13	3.58	47	
		14					T24	10	7.86	<1	48	
S05557-1	Seres	1636	✓			N	137	1	8.00	6.96	13:50	
	28 Base	37					789	2	8.16	7.12	51	
	line	38					388	5	8.07	7.03	52	
		39					A18	10	7.76	6.63	53	
		40					110	25	7.47	6.41	54	
		41					BP29	50	7.35	6.04	55	
		42					k250	100	7.55	4.87	55	

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
505557	Seres	1648	↓			N	E2	1	7.83	7.03	13:58	
-3		49					1397	8	7.90	7.06	59	
		50					412	5	7.98	7.17	14:00	
		51					BP34	10	7.57	6.71	01	
		52					979	25	7.60	6.38	02	
		53					H2	50	7.23	6.01	03	
		54					9696	100	6.25	3.31	03	
		55					6096	300	2.97	<1	04	

02 8/25/21

NOTES:

ANALYST 1 SZ/SS	DATE 8/20/21
ANALYST 2 SZ/SW	DATE 8/25/21
CHECKED BY: ZF	DATE 8/27/21

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

SERES ENGINEERING & SERVICES, LLC

FORT DEVENS 2021 LTM 30048392

SO8173

Ms. Leslie Dimond
207-874-2400

KATAHDIN ANALYTICAL SERVICES
600 TECHNOLOGY WAY
SCARBOROUGH, ME 04074

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SAMPLE DATA PACKAGE

NARRATIVE
KATAHDIN ANALYTICAL SERVICES
SERES ENGINEERING & SERVICES, LLC
FORT DEVENS 2021 LTM 30048392
SO8173

Sample Receipt

The following samples were received on November 23, 2021 and were logged in under Katahdin Analytical Services work order number SO8173 for a hardcopy due date of December 14, 2021.

KATAHDIN Sample No.	SERES Sample Identification
SO8173-1	SHM-10-06-EVENT #2
SO8173-2	SHM-10-06-FF-EVENT #2
SO8173-3	MW-21-4S-EVENT#2
SO8173-4	MW-21-4S-FF-EVENT#2
SO8173-5	MW-21-3D-EVENT#2
SO8173-6	MW-21-3D-FF-EVENT#2
SO8173-7	MW-21-4D-EVENT#2
SO8173-8	MW-21-4D-FF-EVENT#2
SO8173-9	MW-21-3S-EVENT#2
SO8173-10	MW-21-3S-FF-EVENT#2
SO8173-11	MW-21-2D-EVENT#2
SO8173-12	MW-21-2D-FF-EVENT#2
SO8173-13	MW-21-2S-EVENT#2
SO8173-14	MW-21-2S-FF-EVENT#2
SO8173-15	MW-21-1S-EVENT#2
SO8173-16	MW-21-1S-FF-EVENT#2
SO8173-17	MW-21-1S-EVENT#2-DUP
SO8173-18	MW-21-1S-FF-EVENT#2-DUP
SO8173-19	MW-21-1D-EVENT#2
SO8173-20	MW-21-1D-FF-EVENT#2

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

We certify that the test results provided in this report are accredited under the laboratory's ISO/IEC 17025:2017 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation L2223.

Analytes which are reported but not listed on our ANAB scope of accreditation will be "^" flagged and the following language will be included in the case narrative for all DoD compliant work: "^" Indicates this analyte is not included on Katahdin Analytical Services DoD-ELAP Scope of Accreditation.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Heather Manz**. This narrative is an integral part of the Report of Analysis.

Metals Analysis

The samples associated with Katahdin Work Order SO8173 were prepared and analyzed for metals in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015), Office of Solid Waste and Emergency Response, U.S. EPA.

Inductively-Coupled Plasma (ICP) Atomic Emission Spectroscopic Analysis

Aqueous-matrix Katahdin Sample Numbers SO8173-(1-7) were digested for ICP analysis on 11/29/2021 (QC Batch OK29CW1) in accordance USEPA Method 3010A. Per client request, Katahdin Sample Numbers SO8173-3 and 4 were prepared with duplicate matrix-spiked aliquots.

Aqueous-matrix Katahdin Sample Numbers SO8173-(8-20) were digested for ICP analysis on 11/29/21 (QC Batch OK29CW2) in accordance USEPA Method 3010A. Katahdin Sample Number SO8173-8 was prepared with duplicate matrix-spiked aliquots.

ICP analyses of Katahdin Work Order SO8173 samples were performed using a Thermo iCAP 6500 ICP spectrometer in accordance with USEPA Method 6010C. All samples were analyzed within holding times and all applicable analytical run QC criteria were met.

Matrix QC Summary

The measured recoveries of calcium, iron, magnesium, manganese, potassium, and sodium in both of the matrix-spiked aliquots of Katahdin Sample Number SO8173-3 are outside project acceptance criteria. For calcium and iron, this may be attributable to the native sample concentration being much greater than the spike amount added.

The measured recoveries of iron in both of the matrix-spiked aliquots of Katahdin Sample Number SO8173-4 are outside project acceptance criteria. This may be attributable to the native sample concentration being much greater than the spike amount added.

The measured recoveries of arsenic, iron, & manganese in one or both of the matrix-spiked aliquots of Katahdin Sample Number SO8173-8 are outside project acceptance criteria. For arsenic and iron this may be attributable to the native sample concentration being much greater than the spike amount added.

The relative percent differences between the matrix-spiked duplicate analyses of Katahdin Sample Numbers SO8173-3, 4, & 8 are within project acceptance criteria (<20% relative difference between duplicate sample aliquots) for all analytes.

The measured recoveries in the post-digestion spiked aliquots of Katahdin Sample Numbers SO8173-3 & 4 are within laboratory acceptance criteria (80%-120% recovery of the added element) for all analytes.

The measured recovery of iron in the post-digestion spiked aliquot of Katahdin Sample Number SO8173-8 is outside laboratory acceptance criteria (80%-120% recovery of the added element). This may be attributable to the sample concentration being significantly higher than the spike amount. Because the serial dilution was acceptable, no corrective action was taken.

The serial dilution analyses of Katahdin Sample Numbers SO8173-3, 4, & 8 are within laboratory acceptance criteria (<10% relative percent difference, if the concentration in the original sample is greater than 50 times the LOD) for all analytes.

Reporting of Metals Results

Per client request, analytical results for client samples on Form I, preparation blanks on Form IIIP, and matrix QC samples on Forms VA, VD, and VI have been reported using the laboratory's Limits of Quantitation (LOQ). All results were evaluated down to the laboratory's method detection limits (MDLs). Results that are less than the MDL are flagged with "U" in the C-qualifier column, and the LOQ is listed in the concentration column. Results that fall between the MDL and the LOQ are flagged with "J" in the C-qualifier column, and the measured concentration appears in the concentration column. These LOQs and MDLs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results on Forms VB and IX for client samples, analysis QC samples (serial dilutions and post-digestion spikes) have been reported down to the laboratory's method detection limits (MDLs). Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the adjusted MDL is listed in the concentration column.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, MDLs, LODs, and LOQs are listed on Form 10 of the accompanying data package.

Wet Chemistry Analysis

The samples of Work Order SO8173 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for alkalinity, filterable residue, and total biochemical oxygen demand were performed according to "Standard Methods for the Examination of Water and Wastewater", 15th, 16th, 17th, 18th, 19th, and 20th editions, 1980, 1985, 1989, 1992, 1995, 1999. APHA-AWWA-WPCF.

Analyses for nitrate, chloride and sulfate were performed according to "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW-846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015).

All Wet Chemistry results were evaluated to Katahdin Analytical Services' Method Detection Limits (MDL). Measured concentrations that fall between the MDL and Katahdin's Limit of Quantitation (LOQ) are flagged "J". Measured concentrations that are below the MDL are flagged "U" and reported as "U LOQ", where "LOQ" is the numerical value of the Limit of Quantitation.

All analyses were performed within analytical holding times.

All quality control criteria were met with the following exceptions. The LCS recovery (89%) for nitrate was outside of the laboratory's acceptance limits of 90-110%. The recoveries of the matrix spike (63.9%) and matrix spike duplicate (64.2%) for nitrate performed on SO8173-3 was outside the laboratory's acceptance range of 90-110%.

Due to a miscommunication between sample receiving department and the laboratory nitrate was run by method SW846 9056A. We apologize for the error.

Subcontracted Data

Analyses for Dissolved Organic Carbon by Method SW9060A were performed by subcontract laboratories. Please refer to the sections of the data package titled Subcontracted Data.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Quality Assurance Officer, or their designee, as verified by the following signature.

Leslie Dimond ***Feb 16, 2022***

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin Analytical Services, LLC.

Sample Receipt Condition Report

Client: Arcadis/SERES	KAS PM: Q HHM	Sampled By: Client	
Project:	KIMS Entry By: GV	Delivered By: ~~Client~~ KAS	
KAS Work Order#: SO8173	KIMS Review By: HHM	Received By: GV	
	Labeled By: MLV		
SDG #:	Cooler: 1 of 2	Date/Time Rec.: 11-23-21 / 15:45	

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?					
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 5.2 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cbol?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles: **Aqueous:** No bubble larger than a pea?	✓				
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Katahdin Analytical Services, LLC. — Sample Receipt Condition Report

Client: Arcadis/SERES	KAS PM: HHM	Sampled By: Client
Project:	KIMS Entry By: GV	Delivered By: ~~Client~~ KAS
KAS Work Order#: SO8173	KIMS Review By: HHM	Received By: GV
	Labeled By: MLV	
SDG #:	Cooler: 2 of 2	Date/Time Rec.: 11-23-21/15:45

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 3,8 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cbol?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles: **Aqueous:** No bubble larger than a pea?	✓				
Soil/Sediment:				✓	
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Katahdin ANALYTICAL SERVICES

600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Page ____ of ____

Client	Contact	Phone #	Fax #
Arcadis / Sires		( )	( )

Address	City	State	Zip Code

Purchase Order #	Proj. Name / No.	Katahdin Quote #
	Devens AS Pilot 30048392	

Bill (if different than above)	Address
	30048392

Sampler (Print / Sign)	Copies To:
Grace Steckler Grace Steckler	

LAB USE ONLY

WORK ORDER #: 508173

KATAHDIN PROJECT NUMBER ____

REMARKS: ____

SHIPPING INFO: ❒ FED EX ❒ UPS ❒ CLIENT

AIRBILL NO: ____

TEMP°C ____ ❒ TEMP BLANK ❒ INTACT ❒ NOT INTACT

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	ANALYSIS AND CONTAINER TYPE PRESERVATIVES: Filt.	Total Metals (HNO_3)	Filt.	Nitrate Alkalinity TDS Sulfate, Chloride	Filt.	Dissolved Metals (HNO_3)	Filt.	Dissolved TOC (H_2SO_4)	Filt.	BOD	Filt.	Filt.	Filt.	Filt.	Filt.
	SHM-10-06-Event#2	11/22/21 10:40	GW	2		✓		✓											
	SHM-10-06-FF-Event#2	11/22/21 10:45	GW	3						✓		✓							
	MW-21-4S-EVENT#2	11/22/21 10:25	GW	2		✓		✓											
	MW-21-4S-EVENT#2-FF	11/22/21 10:25	GW	3						✓		✓							
	MW-21-4S-EVENT#2-MS	11/22/21 10:25	GW	2		✓		✓											
	MW-21-4S-EVENT#2-FF-MS	11/22/21 10:25	GW	3						✓		✓							
	MW-21-4S-EVENT#2-MSD	11/22/21 10:25	GW	2		✓		✓											
	MW-21-4S-EVENT#2-FF-MSD	11/22/21 10:25	GW	3						✓		✓							
	MW-21-3D-Event#2	11/22/21 12:51	GW	2		✓		✓											
	MW-21-3D-FF-Event#2	11/22/21 12:57	GW	3						✓		✓							
	MW-21-4D-EVENT#2	11/22/21 12:50	GW	2		✓		✓											
	MW-21-4D-FF-EVENT#2	11/22/21 12:50	GW	3						✓		✓							
	MW-21-3S-Event#2	11/22/21 14:30	GW	2		✓		✓											
	MW-21-3S-FF-Event#2	11/22/21 14:35	GW	3						✓		✓							
	MW-21-2D-EVENT#2	11/22/21 14:55	GW	3		✓		✓						✓					
	MW-21-2D-FF-EVENT#2	11/22/21 14:55	GW	3						✓		✓							

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Grace Steckler	11/23 13:36	Buchanan 11/23/2021 13:35	Buchanan 11/23/2021 15:44		
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Page ____ of ____

Client: Arcadis / Seres
Contact:
Phone #: ( )
Fax #: ( )

Address:
City:
State:
Zip Code:

Purchase Order #:
Proj. Name / No.: Devens AS Pilot 30048392
Katahdin Quote #:

Bill (if different than above):
Address:

Sampler (Print / Sign): Grace Sheckler Grace Sheckler
Copies To:

LAB USE ONLY
WORK ORDER #: SO8173
KATAHDIN PROJECT NUMBER:

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT
AIRBILL NO:
TEMP°C ____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	Total Metals (HNO3)	Alkalinity, TDS, Sulfate, Chloride, Nitrate	Dissolved Metals (HNO3)	Dissolved TOC (H2SO4)	BOD					
	MW-21-2S-Event#2	11/23/21 / 10:47	GW	3	✓	✓			✓					
	MW-21-2S-FF-Event#2	11/23/21 / 10:51	GW	3			✓	✓						
	MW-21-1S-Event#2	11/23 / 11:42	GW	3	✓	✓			✓					
	MW-21-1S-FF Event#2	11/23 / 11:52	GW	3			✓	✓						
	MW-21-1S-Event#2-Dup	11/23 / 11:42	GW	2	✓	✓			✓					
	MW-21-1S-FF-Event#2 Dup	11/23 / 11:52	GW	3			✓	✓						
	MW-21-1D-Event#2	11/23/21 / 13:03	GW	3	✓	✓			✓					
	MW-21-1D-FF-Event#2	11/23/21 / 13:10	GW	3			✓	✓						
		/												
		/												
		/												
		/												
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		/												
		/												

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Grace Sheckler	11/23 13:30	11/23/2021 Buchanan 13:35	11/23/2021 Buchanan 15:44		[signature]
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Heather Manz

From: Sheckler, Grace <Grace.Sheckler@arcadis.com>
Sent: Thursday, December 23, 2021 12:12 PM
To: Heather Manz
Cc: Therriault, Brian; halevesque@seres-es.com; Bedard, Desmond
Subject: Amending Lab Report Client IDs

Follow Up Flag: Follow up
Flag Status: Flagged

Hello Heather,

I hope you are having a happy holiday season. I wanted to contact you in the hopes that we would be able to amend this email to the next lab report issued. Some of the sample IDs on the latest preliminary results from the November 22nd/23rd sampling event seem to have been mislabeled, and we wanted to change them before the full report is issued. Specifically, we want the IDs that contain FF to be in this format:
well name-FF-Event #

For example, MW-21-##-FF-Event #. On the latest preliminary results, I believe the only ID we would need amended is MW-21-4S. This would be changed from MW-21-4S-Event #2-FF to MW-21-4S-FF-Event #2.

If possible, we would like to make sure future reports are in this format. We will make sure all future samples are labeled properly and apologize if any of our samples were labeled incorrectly. Please let me know if we can make these changes.

Thank you for your help and I hope you have happy holidays.

Regards,
Grace

Grace Sheckler (she/her)
Environmental Engineer Specialist 1
Arcadis U.S., Inc.
One Executive Drive, Suite 303 | Chelmsford, MA | 01824 | USA
www.arcadis.com

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Feb. 11, 2022
03:51 PM

Login Number: SO8173

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Primary Report Address:
Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston, SC 29492
USA
halevesque@seres-es.com

Primary Invoice Address:
Accounts Payable
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston,SC 29492
USA
metunstall@seres-es.com

Report CC Addresses:
Invoice CC Addresses:

Quote/Incoming: SERES-FT-DEVENS

Login Information

ANALYSIS INSTRUCTIONS	:	DOD 5.3, ND to LOQ w/ J flags, include LOD on ROAs. Dec 2021 Anions: NO3 by E353.2, Cl/SO4 by SW9056.
CHECK NO.	:	
CLIENT PO#	:	Project # JV2008 04.03
CLIENT PROJECT MANAGE	:	Heather Levesque
CONTRACT	:	W912WJ-19D-0014
COOLER TEMPERATURE	:	5.2, 3.8
DELIVERY SERVICES	:	KAS
EDD FORMAT	:	WESTMDLPQLLOD-XLS
LOGIN INITIALS	:	GN
PM	:	HHM
PROJECT NAME	:	Fort Devens 2021 LTM 30048392
QC LEVEL	:	IV
REPORT INSTRUCTIONS	:	Upload EDD to Ft. Devens Database. Upload to SDS. Email reports to halevesque@seres-es.com; Ian.Martz@arcadis.com; Jennifer.Singer@arcadis.com. Email invoices to METunstall@seres-es.com & HALevesque@seres-es.com.
SDG ID	:	
SDG STATUS	:	
VERBAL TAT	:	

Run Reports: Logindetail

3:52 pm, Feb 11, 2022

Login Number: SO8173

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Quote/Incoming: SERES-FT-DEVENS

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SO8173-1	SHM-10-06-EVENT #2	22-NOV-21 10:40	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Service	S	COURIER-BILLING			
Aqueous	S	E353.2-NITRATE	24-NOV-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	06-DEC-21		
Aqueous	S	SM2540C-TDS	29-NOV-21		250mL Plastic
Aqueous	S	SW3010-PREP	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	21-DEC-21		

SO8173-2	SHM-10-06-FF-EVENT #2	22-NOV-21 10:45	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			

SO8173-3	MW-21-4S-EVENT#2	22-NOV-21 10:25	23-NOV-21		14-DEC-21		

Sample Comments: MS/MSD

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	E353.2-NITRATE	24-NOV-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	06-DEC-21		
Aqueous	S	SM2540C-TDS	29-NOV-21		250mL Plastic
Aqueous	S	SW3010-PREP	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	21-DEC-21		

SO8173-4	MW-21-4S-FF-EVENT#2	22-NOV-21 10:25	23-NOV-21		14-DEC-21		

Sample Comments: MS/MSD

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			

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3:52 pm, Feb 11, 2022

Login Number: SO8173

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Quote/Incoming: SERES-FT-DEVENS

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SO8173-5	MW-21-3D-EVENT#2	22-NOV-21 12:51	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	E353.2-NITRATE	24-NOV-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	06-DEC-21		
Aqueous	S	SM2540C-TDS	29-NOV-21		250mL Plastic
Aqueous	S	SW3010-PREP	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	21-DEC-21		

SO8173-6	MW-21-3D-FF-EVENT#2	22-NOV-21 12:57	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			

SO8173-7	MW-21-4D-EVENT#2	22-NOV-21 12:50	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	E353.2-NITRATE	24-NOV-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	06-DEC-21		
Aqueous	S	SM2540C-TDS	29-NOV-21		250mL Plastic
Aqueous	S	SW3010-PREP	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	21-DEC-21		

SO8173-8	MW-21-4D-FF-EVENT#2	22-NOV-21 12:50	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			



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3:52 pm, Feb 11, 2022

Login Number: SO8173

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Quote/Incoming: SERES-FT-DEVENS

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SO8173-9	MW-21-3S-EVENT#2	22-NOV-21 14:30	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	E353.2-NITRATE	24-NOV-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	06-DEC-21		
Aqueous	S	SM2540C-TDS	29-NOV-21		250mL Plastic
Aqueous	S	SW3010-PREP	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	21-DEC-21		

SO8173-10	MW-21-3S-FF-EVENT#2	22-NOV-21 14:35	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			

SO8173-11	MW-21-2D-EVENT#2	22-NOV-21 14:55	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	E353.2-NITRATE	24-NOV-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	06-DEC-21		
Aqueous	S	SM2540C-TDS	29-NOV-21		250mL Plastic
Aqueous	S	SM5210B-TBOD	24-NOV-21 SHORT		250mL Plastic
Aqueous	S	SW3010-PREP	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	21-DEC-21		

SO8173-12	MW-21-2D-FF-EVENT#2	22-NOV-21 14:55	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	21-MAY-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			

Run Reports: Logindetail



3:52 pm, Feb 11, 2022

Login Number: SO8173

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Quote/Incoming: SERES-FT-DEVENS

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SO8173-13	MW-21-2S-EVENT#2	23-NOV-21 10:47	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	E353.2-NITRATE	25-NOV-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	07-DEC-21		
Aqueous	S	SM2540C-TDS	30-NOV-21		250mL Plastic
Aqueous	S	SM5210B-TBOD	25-NOV-21 SHORT		250mL Plastic
Aqueous	S	SW3010-PREP	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	21-DEC-21		

SO8173-14	MW-21-2S-FF-EVENT#2	23-NOV-21 10:51	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			

SO8173-15	MW-21-1S-EVENT#2	23-NOV-21 11:42	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	E353.2-NITRATE	25-NOV-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	07-DEC-21		
Aqueous	S	SM2540C-TDS	30-NOV-21		250mL Plastic
Aqueous	S	SM5210B-TBOD	25-NOV-21 SHORT		250mL Plastic
Aqueous	S	SW3010-PREP	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	21-DEC-21		

SO8173-16	MW-21-1S-FF-EVENT#2	23-NOV-21 11:52	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			

Run Reports: Logindetail

3:52 pm, Feb 11, 2022

Login Number: SO8173

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Quote/Incoming: SERES-FT-DEVENS

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SO8173-17	MW-21-1S-EVENT#2-DUP	23-NOV-21 11:42	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	E353.2-NITRATE	25-NOV-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	07-DEC-21		
Aqueous	S	SM2540C-TDS	30-NOV-21		250mL Plastic
Aqueous	S	SM5210B-TBOD	25-NOV-21 SHORT		250mL Plastic
Aqueous	S	SW3010-PREP	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	21-DEC-21		

SO8173-18	MW-21-1S-FF-EVENT#2-DUP	23-NOV-21 11:52	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			

SO8173-19	MW-21-1D-EVENT#2	23-NOV-21 13:03	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	E353.2-NITRATE	25-NOV-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	07-DEC-21		
Aqueous	S	SM2540C-TDS	30-NOV-21		250mL Plastic
Aqueous	S	SM5210B-TBOD	25-NOV-21 SHORT		250mL Plastic
Aqueous	S	SW3010-PREP	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	21-DEC-21		

SO8173-20	MW-21-1D-FF-EVENT#2	23-NOV-21 03:10	23-NOV-21		14-DEC-21		

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	22-MAY-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			

Total Samples: 20 ***Total Analyses: 176***

Run Reports: Logindetail

3:52 pm, Feb 11, 2022

SAMPLE DATA SUMMARY PACKAGE

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Limit of Quantitation (LOQ) (previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as “U” MDL have a 50% rate for false negatives compared to those results reported as “U” PQL/LOQ or “U” LOD, where the rate of false negatives is <1%.
J	The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ) (previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results may not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results may not be reportable for compliance purposes.

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-EVENT #2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	1120			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	37600			P	1	100	11	80
7439-89-6	IRON, TOTAL	79900			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	5710			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	2800			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	10600			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	17500			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-FF-EVENT #2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	864			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	62800			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	2190			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	19.3			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	42700		N	P	1	100	11	80
7439-89-6	IRON, TOTAL	39400		N	P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6260		N	P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1280		N	P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	9840		N	P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	14700		N	P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	16.3			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	46400		N	P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1540			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-005

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	2280			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	43700			P	1	100	11	80
7439-89-6	IRON, TOTAL	60400			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6600			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	3280			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6780			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	15400			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	2250			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	58500			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	3210			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-007

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	2040			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	43500			P	1	100	11	80
7439-89-6	IRON, TOTAL	67700			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6670			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1770			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	7480			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	19300			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-008

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	2000		N	P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	67200		NA	P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1750		N	P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-009

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	7.1	J		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	39200			P	1	100	11	80
7439-89-6	IRON, TOTAL	6590			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	4560			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	670			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	11900			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	19600			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-010

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	5730			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	646			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-011

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	1130			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	21400			P	1	100	11	80
7439-89-6	IRON, TOTAL	32100			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	3140			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	682			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	5520			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	19500			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-012

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1120			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	32200			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	691			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-013

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	9.4			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	32200			P	1	100	11	80
7439-89-6	IRON, TOTAL	4320			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	3310			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	741			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	7800			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	31100			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-014

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	3240			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	730			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-015

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	37100			P	1	100	11	80
7439-89-6	IRON, TOTAL	26	J		P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6110			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	945			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	10700			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	24000			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-016

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	9.6	J		P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	923			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-EVENT#2-DUP

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-017

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	37200			P	1	100	11	80
7439-89-6	IRON, TOTAL	24	J		P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6110			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	946			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	10600			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	24100			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-FF-EVENT#2-DUP

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-018

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	6.4	J		P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	932			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-019

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	57.6			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	39900			P	1	100	11	80
7439-89-6	IRON, TOTAL	4280			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6220			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	5310			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6540			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	15500			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-020

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	24.8			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	3420			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	5610			P	1	5.0	1.1	4.0

Comments:

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-1
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
SHM-10-06-EVENT #2	AQ	22-NOV-21 10:40:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	210 mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 15:54:19	N/A	N/A	
Chloride	31 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 16:05:00	N/A	N/A	
Nitrate as N	0.058 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 18:56:00	N/A	N/A	
Solids-Filterable Residue	160 mg/L	10.	5.0	8	STDM 2540C	WG310883	03-DEC-21 09:00:00	SM 2540C	01-DEC-21	
Sulfate	7.3 mg/L	1.0	0.064	0.50	SW846 9056A	WG311443	09-DEC-21 15:44:00	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-3
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4S-EVENT#2	AQ	22-NOV-21 10:25:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	250 mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 15:57:47	N/A	N/A	
Chloride	21 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 16:46:00	N/A	N/A	
Nitrate as N	0.23 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 17:53:00	N/A	N/A	
Solids-Filterable Residue	230 mg/L	10.	5.0	8	STDM 2540C	WG310883	03-DEC-21 09:00:00	SM 2540C	01-DEC-21	
Sulfate	13 mg/L	1.0	0.064	0.50	SW846 9056A	WG311443	09-DEC-21 16:25:00	N/A	N/A	

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-5
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3D-EVENT#2	AQ	22-NOV-21 12:51:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	190 mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 16:01:43	N/A	N/A	
Chloride	25 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 17:49:00	N/A	N/A	
Nitrate as N	0.060 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 21:21:00	N/A	N/A	
Solids-Filterable Residue	210 mg/L	10.	5.0	8	STDM 2540C	WG310883	03-DEC-21 09:00:00	SM 2540C	01-DEC-21	
Sulfate	21 mg/L	1.0	0.064	0.50	SW846 9056A	WG311079	23-NOV-21 21:21:00	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-7
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4D-EVENT#2	AQ	22-NOV-21 12:50:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	210 mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 16:04:52	N/A	N/A	
Chloride	25 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 18:30:00	N/A	N/A	
Nitrate as N	J0.046 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 20:19:00	N/A	N/A	
Solids-Filterable Residue	200 mg/L	10.	5.0	8	STDM 2540C	WG310883	03-DEC-21 09:00:00	SM 2540C	01-DEC-21	
Sulfate	23 mg/L	1.0	0.064	0.50	SW846 9056A	WG311443	09-DEC-21 18:09:00	N/A	N/A	

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-9
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3S-EVENT#2	AQ	22-NOV-21 14:30:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	140 mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 16:08:02	N/A	N/A	
Chloride	26 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 18:51:00	N/A	N/A	
Nitrate as N	J0.050 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 22:03:00	N/A	N/A	
Solids-Filterable Residue	170 mg/L	10.	5.0	8	STDM 2540C	WG310883	03-DEC-21 09:00:00	SM 2540C	01-DEC-21	
Sulfate	6.4 mg/L	1.0	0.064	0.50	SW846 9056A	WG311079	23-NOV-21 22:03:00	N/A	N/A	

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-11
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2D-EVENT#2	AQ	22-NOV-21 14:55:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	87. mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 16:10:52	N/A	N/A	
Chloride	34 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 19:12:00	N/A	N/A	
Nitrate as N	0.053 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 22:24:00	N/A	N/A	
Solids-Filterable Residue	160 mg/L	10.	5.0	8	STDM 2540C	WG310958	06-DEC-21 08:40:00	SM 2540C	02-DEC-21	
Sulfate	22 mg/L	1.0	0.064	0.50	SW846 9056A	WG311079	23-NOV-21 22:24:00	N/A	N/A	
Total Biochemical Oxygen Demand	2.7 mg/L	2.0	0.23	1	SM5210B	WG310581	29-NOV-21 11:09:00	SM 5210B	24-NOV-21 0921	

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-13
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2S-EVENT#2	AQ	23-NOV-21 10:47:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	110 mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 16:13:20	N/A	N/A	
Chloride	33 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 19:53:00	N/A	N/A	
Nitrate as N	0.060 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 19:17:00	N/A	N/A	
Solids-Filterable Residue	180 mg/L	10.	5.0	8	STDM 2540C	WG310958	06-DEC-21 08:40:00	SM 2540C	02-DEC-21	
Sulfate	24 mg/L	1.0	0.064	0.50	SW846 9056A	WG311443	09-DEC-21 19:32:00	N/A	N/A	
Total Biochemical Oxygen Demand	J1.5 mg/L	2.0	0.23	1	SM5210B	WG310581	29-NOV-21 11:14:00	SM 5210B	24-NOV-21 0929	

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-15
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1S-EVENT#2	AQ	23-NOV-21 11:42:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	150 mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 16:15:56	N/A	N/A	
Chloride	28 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 20:35:00	N/A	N/A	
Nitrate as N	0.15 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 19:58:00	N/A	N/A	
Solids-Filterable Residue	200 mg/L	10.	5.0	8	STDM 2540C	WG310958	06-DEC-21 08:40:00	SM 2540C	02-DEC-21	
Sulfate	10 mg/L	1.0	0.064	0.50	SW846 9056A	WG311443	09-DEC-21 20:14:00	N/A	N/A	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG310581	29-NOV-21 11:18:00	SM 5210B	24-NOV-21 0932	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-17
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1S-EVENT#2-DUP	AQ	23-NOV-21 11:42:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	150 mg/L	5.0	0.23	4	STDM 2320B	WG311163	07-DEC-21 11:21:40	N/A	N/A	
Chloride	28 mg/L	4.0	0.20	2.0	SW846 9056A	WG311307	08-DEC-21 06:42:00	N/A	N/A	
Nitrate as N	0.16 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 19:37:00	N/A	N/A	
Solids-Filterable Residue	130 mg/L	10.	5.0	8	STDM 2540C	WG310958	06-DEC-21 08:40:00	SM 2540C	02-DEC-21	
Sulfate	10 mg/L	1.0	0.064	0.50	SW846 9056A	WG311307	08-DEC-21 06:21:00	N/A	N/A	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG310581	29-NOV-21 11:21:00	SM 5210B	24-NOV-21 0944	

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-19
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1D-EVENT#2	AQ	23-NOV-21 13:03:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	130 mg/L	5.0	0.23	4	STDM 2320B	WG310668	27-NOV-21 12:25:02	N/A	N/A	
Chloride	23 mg/L	4.0	0.20	2.0	SW846 9056A	WG311307	08-DEC-21 07:23:00	N/A	N/A	
Nitrate as N	0.056 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 21:42:00	N/A	N/A	
Solids-Filterable Residue	190 mg/L	10.	5.0	8	STDM 2540C	WG310958	06-DEC-21 08:40:00	SM 2540C	02-DEC-21	
Sulfate	17 mg/L	1.0	0.064	0.50	SW846 9056A	WG311307	08-DEC-21 07:02:00	N/A	N/A	
Total Biochemical Oxygen Demand	J0.83 mg/L	2.0	0.23	1	SM5210B	WG310581	29-NOV-21 11:24:00	SM 5210B	24-NOV-21 0957	

METALS DATA

Sample Data Section

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL, "U" LOQ or "U" LOD, where the rate of false negatives is <1%.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Katahdin Analytical Services

SDG Name: SO8173 **SOW No.** SW846

Client Field ID	Lab Sample ID
MW-21-1D-EVENT#2	SO8173-019
MW-21-1D-FF-EVENT#2	SO8173-020
MW-21-1S-EVENT#2	SO8173-015
MW-21-1S-EVENT#2-DUP	SO8173-017
MW-21-1S-FF-EVENT#2	SO8173-016
MW-21-1S-FF-EVENT#2-DUP	SO8173-018
MW-21-2D-EVENT#2	SO8173-011
MW-21-2D-FF-EVENT#2	SO8173-012
MW-21-2S-EVENT#2	SO8173-013
MW-21-2S-FF-EVENT#2	SO8173-014
MW-21-3D-EVENT#2	SO8173-005
MW-21-3D-FF-EVENT#2	SO8173-006
MW-21-3S-EVENT#2	SO8173-009
MW-21-3S-FF-EVENT#2	SO8173-010
MW-21-4D-EVENT#2	SO8173-007
MW-21-4D-FF-EVENT#2	SO8173-008
MW-21-4D-FF-EVENT#2P	SO8173-008P
MW-21-4D-FF-EVENT#2S	SO8173-008S
MW-21-4S-EVENT#2	SO8173-003
MW-21-4S-EVENT#2P	SO8173-003P
MW-21-4S-EVENT#2S	SO8173-003S
MW-21-4S-FF-EVENT#2	SO8173-004
MW-21-4S-FF-EVENT#2P	SO8173-004P
MW-21-4S-FF-EVENT#2S	SO8173-004S

Were ICP interelement corrections applied ?	Yes
Were ICP background corrections applied ?	Yes
If yes - were raw data generated before application of background corrections ?	No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Emily Pelletier Name: Emily Pelletier

Date: 12/23/19 Title: Analyst

COVER PAGE - IN

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Katahdin Analytical Services

SDG Name: SO8173 **SOW No.** SW846

Client Field ID	Lab Sample ID
SHM-10-06-EVENT #2	SO8173-001
SHM-10-06-FF-EVENT #2	SO8173-002

Were ICP interelement corrections applied ?	Yes
Were ICP background corrections applied ?	Yes
If yes - were raw data generated before application of background corrections ?	No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Emily Pelletier Name: Emily Pelletier

Date: 12/23/21 Title: Analyst

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-EVENT #2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	1120			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	37600			P	1	100	11	80
7439-89-6	IRON, TOTAL	79900			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	5710			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	2800			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	10600			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	17500			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-FF-EVENT #2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	864			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	62800			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	2190			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	19.3			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	42700		N	P	1	100	11	80
7439-89-6	IRON, TOTAL	39400		N	P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6260		N	P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1280		N	P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	9840		N	P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	14700		N	P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	16.3			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	46400		N	P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1540			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-005

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	2280			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	43700			P	1	100	11	80
7439-89-6	IRON, TOTAL	60400			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6600			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	3280			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6780			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	15400			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	2250			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	58500			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	3210			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-007

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	2040			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	43500			P	1	100	11	80
7439-89-6	IRON, TOTAL	67700			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6670			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1770			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	7480			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	19300			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-008

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	2000		N	P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	67200		NA	P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1750		N	P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-009

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	7.1	J		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	39200			P	1	100	11	80
7439-89-6	IRON, TOTAL	6590			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	4560			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	670			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	11900			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	19600			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-010

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	5730			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	646			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-011

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	1130			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	21400			P	1	100	11	80
7439-89-6	IRON, TOTAL	32100			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	3140			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	682			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	5520			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	19500			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-012

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1120			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	32200			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	691			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-013

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	9.4			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	32200			P	1	100	11	80
7439-89-6	IRON, TOTAL	4320			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	3310			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	741			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	7800			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	31100			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-014

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	3240			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	730			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-015

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	37100			P	1	100	11	80
7439-89-6	IRON, TOTAL	26	J		P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6110			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	945			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	10700			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	24000			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-016

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	9.6	J		P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	923			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-EVENT#2-DUP

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-017

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	37200			P	1	100	11	80
7439-89-6	IRON, TOTAL	24	J		P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6110			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	946			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	10600			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	24100			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-FF-EVENT#2-DUP

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-018

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	6.4	J		P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	932			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-019

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	57.6			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	39900			P	1	100	11	80
7439-89-6	IRON, TOTAL	4280			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6220			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	5310			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6540			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	15500			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-020

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	24.8			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	3420			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	5610			P	1	5.0	1.1	4.0

Comments:

QC Summary Section

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Concentration Units: ug/L

SAMPLE: ICV

File: IOK30A Nov 30, 2021 10:48

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	10270.00	102.7
ARSENIC	400.0	392.00	98.0
CALCIUM	10000.0	10390.00	103.9
IRON	10000.0	10310.00	103.1
MAGNESIUM	10000.0	10390.00	103.9
MANGANESE	400.0	405.10	101.3
POTASSIUM	13600.0	13900.00	102.2
SODIUM	10000.0	10240.00	102.4

SAMPLE: CCV

File: IOK30A Nov 30, 2021 11:10

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12850.00	102.8
ARSENIC	500.0	506.90	101.4
CALCIUM	12500.0	12840.00	102.7
IRON	12500.0	12750.00	102.0
MAGNESIUM	12500.0	13030.00	104.2
MANGANESE	500.0	510.00	102.0
POTASSIUM	12500.0	12660.00	101.3
SODIUM	12500.0	12610.00	100.9

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Concentration Units: ug/L

SAMPLE: CCV

File: IOK30A Nov 30, 2021 11:28

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12820.00	102.6
ARSENIC	500.0	511.20	102.2
CALCIUM	12500.0	12860.00	102.9
IRON	12500.0	12850.00	102.8
MAGNESIUM	12500.0	13090.00	104.7
MANGANESE	500.0	515.80	103.2
POTASSIUM	12500.0	12880.00	103.0
SODIUM	12500.0	12680.00	101.4

SAMPLE: CCV

File: IOK30A Nov 30, 2021 12:19

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12730.00	101.8
ARSENIC	500.0	517.00	103.4
CALCIUM	12500.0	12810.00	102.5
IRON	12500.0	12860.00	102.9
MAGNESIUM	12500.0	13260.00	106.1
MANGANESE	500.0	515.50	103.1
POTASSIUM	12500.0	12700.00	101.6
SODIUM	12500.0	12640.00	101.1

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Concentration Units: ug/L

SAMPLE: CCV

File: IOK30A Nov 30, 2021 13:11

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12920.00	103.4
ARSENIC	500.0	524.40	104.9
CALCIUM	12500.0	12970.00	103.8
IRON	12500.0	12990.00	103.9
MAGNESIUM	12500.0	13450.00	107.6
MANGANESE	500.0	523.00	104.6
POTASSIUM	12500.0	12830.00	102.6
SODIUM	12500.0	12610.00	100.9

SAMPLE: CCV

File: IOK30A Nov 30, 2021 14:02

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12600.00	100.8
ARSENIC	500.0	523.80	104.8
CALCIUM	12500.0	12680.00	101.4
IRON	12500.0	12740.00	101.9
MAGNESIUM	12500.0	13440.00	107.5
MANGANESE	500.0	512.80	102.6
POTASSIUM	12500.0	12590.00	100.7
SODIUM	12500.0	12340.00	98.7

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Concentration Units: ug/L

SAMPLE: CCV

File: IOK30A Nov 30, 2021 14:53

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13000.00	104.0
ARSENIC	500.0	524.80	105.0
CALCIUM	12500.0	13120.00	105.0
IRON	12500.0	13130.00	105.0
MAGNESIUM	12500.0	13530.00	108.2
MANGANESE	500.0	531.80	106.4
POTASSIUM	12500.0	12920.00	103.4
SODIUM	12500.0	12650.00	101.2

SAMPLE: CCV

File: IOK30A Nov 30, 2021 15:45

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12970.00	103.8
ARSENIC	500.0	526.70	105.3
CALCIUM	12500.0	13120.00	105.0
IRON	12500.0	13130.00	105.0
MAGNESIUM	12500.0	13410.00	107.3
MANGANESE	500.0	529.80	106.0
POTASSIUM	12500.0	12950.00	103.6
SODIUM	12500.0	12690.00	101.5

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Concentration Units: ug/L

SAMPLE: CCV

File: IOK30A Nov 30, 2021 16:35

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13280.00	106.2
ARSENIC	500.0	525.80	105.2
CALCIUM	12500.0	13410.00	107.3
IRON	12500.0	13340.00	106.7
MAGNESIUM	12500.0	13340.00	106.7
MANGANESE	500.0	541.90	108.4
POTASSIUM	12500.0	13190.00	105.5
SODIUM	12500.0	12950.00	103.6

SAMPLE: CCV

File: IOK30A Nov 30, 2021 17:27

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13300.00	106.4
ARSENIC	500.0	537.90	107.6
CALCIUM	12500.0	13440.00	107.5
IRON	12500.0	13160.00	105.3
MAGNESIUM	12500.0	13640.00	109.1
MANGANESE	500.0	544.10	108.8
POTASSIUM	12500.0	13310.00	106.5
SODIUM	12500.0	12930.00	103.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Concentration Units: ug/L

SAMPLE: CCV

File: IOK30A Nov 30, 2021 18:19

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13270.00	106.2
ARSENIC	500.0	534.20	106.8
CALCIUM	12500.0	13440.00	107.5
IRON	12500.0	13250.00	106.0
MAGNESIUM	12500.0	13700.00	109.6
MANGANESE	500.0	547.10	109.4
POTASSIUM	12500.0	13150.00	105.2
SODIUM	12500.0	12720.00	101.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Concentration Units: ug/L

SAMPLE: PQL

File: IOK30A Nov 30, 2021 10:56

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	316.50	105.5
ARSENIC	8.0	6.96	87.0
CALCIUM	100.0	105.70	105.7
IRON	100.0	104.80	104.8
MAGNESIUM	100.0	109.70	109.7
MANGANESE	5.0	5.10	102.0
POTASSIUM	1000.0	1028.00	102.8
SODIUM	1000.0	1023.00	102.3

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Concentration Units: ug/L

SAMPLE: ICB

File: IOK30A Nov 30, 2021 10:52

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	6.241	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IOK30A Nov 30, 2021 11:14

Analyte	Result	C
ALUMINUM	15.400	J
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	6.960	J
MAGNESIUM	15.160	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IOK30A Nov 30, 2021 11:32

Analyte	Result	C
ALUMINUM	13.480	J
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	8.939	J
MAGNESIUM	7.553	J
MANGANESE	0.870	U
POTASSIUM	81.480	J
SODIUM	20.260	J

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Concentration Units: ug/L

SAMPLE: CCB
File: IOK30A Nov 30, 2021 12:23

Analyte	Result	C
ALUMINUM	10.510	J
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	6.361	J
MAGNESIUM	3.807	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	69.770	J

SAMPLE: CCB
File: IOK30A Nov 30, 2021 13:15

Analyte	Result	C
ALUMINUM	10.370	J
ARSENIC	1.400	U
CALCIUM	14.390	J
IRON	10.790	J
MAGNESIUM	5.806	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB
File: IOK30A Nov 30, 2021 14:06

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	10.270	J
MAGNESIUM	6.901	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Concentration Units: ug/L

SAMPLE: CCB
File: IOK30A Nov 30, 2021 14:58

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	10.250	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB
File: IOK30A Nov 30, 2021 15:49

Analyte	Result	C
ALUMINUM	13.200	J
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	7.967	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB
File: IOK30A Nov 30, 2021 16:40

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	13.040	J
IRON	16.900	J
MAGNESIUM	4.481	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Concentration Units: ug/L

SAMPLE: CCB

File: IOK30A Nov 30, 2021 17:31

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	9.540	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IOK30A Nov 30, 2021 18:23

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	9.027	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	-17.030	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWOK29ICW1

Matrix: WATER **SDG Name:** SO8173

QC Batch ID: OK29ICW1

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	8.0	U
CALCIUM	100	U
IRON	9.6	J
MAGNESIUM	100	U
MANGANESE	5.0	U
POTASSIUM	1000	U
SODIUM	1000	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWOK29ICW2

Matrix: WATER **SDG Name:** SO8173

QC Batch ID: OK29ICW2

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	8.0	U
CALCIUM	100	U
IRON	10	J
MAGNESIUM	100	U
MANGANESE	5.0	U
POTASSIUM	1000	U
SODIUM	1000	U

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Concentration Units: ug/L

SAMPLE: ICSA

File: IOK30A Nov 30, 2021 11:01

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	498500.00	99.7
ARSENIC	0	0.22	
CALCIUM	500000.00	477500.00	95.5
IRON	200000.00	189100.00	94.5
MAGNESIUM	500000.00	413400.00	82.7
MANGANESE	0	0.15	
POTASSIUM	0	24.34	
SODIUM	0	77.25	

SAMPLE: ICSAB

File: IOK30A Nov 30, 2021 11:05

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	497700.00	99.5
ARSENIC	100.00	97.60	98.0
CALCIUM	500000.00	477000.00	95.4
IRON	200000.00	187500.00	93.8
MAGNESIUM	500000.00	409400.00	81.9
MANGANESE	500.00	475.20	95.0
POTASSIUM	20000.00	20750.00	103.8
SODIUM	20000.00	20620.00	103.1

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT#2P

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-003P

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, TOTAL	132		19.3		100	112.5		87	113	P
CALCIUM, TOTAL	55800		42700		2500	526.0	N	87	113	P
IRON, TOTAL	49800		39400		1000	1045.0	N	87	115	P
MAGNESIUM, TOTAL	12700		6260		5000	129.6	N	85	113	P
MANGANESE, TOTAL	2150		1280		500	173.8	N	90	114	P
POTASSIUM, TOTAL	23200		9840		10000	133.5	N	86	114	P
SODIUM, TOTAL	26200		14700		7500	153.7	N	87	115	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT#2S

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-003S

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, TOTAL	130		19.3		100	110.7		87	113	P
CALCIUM, TOTAL	52500		42700		2500	393.6	N	87	113	P
IRON, TOTAL	47300		39400		1000	787.0	N	87	115	P
MAGNESIUM, TOTAL	12500		6260		5000	125.6	N	85	113	P
MANGANESE, TOTAL	2020		1280		500	148.0	N	90	114	P
POTASSIUM, TOTAL	21900		9840		10000	120.4	N	86	114	P
SODIUM, TOTAL	24700		14700		7500	133.1	N	87	115	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-FF-EVENT#2P

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-004P

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	125		16.3		100	108.8		87	113	P
IRON, DISSOLVED	47700		46400		1000	133.0	N	87	115	P
MANGANESE, DISSOLVED	2090		1540		500	110.0		90	114	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-FF-EVENT#2S

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-004S

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	127		16.3		100	111.1		87	113	P
IRON, DISSOLVED	47600		46400		1000	121.0	N	87	115	P
MANGANESE, DISSOLVED	2080		1540		500	107.6		90	114	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#2P

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-008P

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	2190		2000		100	187.0	N	87	113	P
IRON, DISSOLVED	69700		67200		1000	246.0	N	87	115	P
MANGANESE, DISSOLVED	2350		1750		500	120.0	N	90	114	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#2S

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-008S

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	2160		2000		100	155.0	N	87	113	P
IRON, DISSOLVED	68300		67200		1000	112.0		87	115	P
MANGANESE, DISSOLVED	2310		1750		500	111.8		90	114	P

Comments:

5B

POST DIGEST SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT#2A

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-003A

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, TOTAL	528		19.3		500	101.7		80	120	P
CALCIUM, TOTAL	47200		42700		5500	81.6		80	120	P
IRON, TOTAL	43900		39400		5500	81.5		80	120	P
MAGNESIUM, TOTAL	11700		6260		5500	98.5		80	120	P
MANGANESE, TOTAL	1750		1280		500	94.6		80	120	P
POTASSIUM, TOTAL	19900		9840		10000	100.4		80	120	P
SODIUM, TOTAL	19800		14700		5500	92.4		80	120	P

Comments:

5B

POST DIGEST SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-FF-EVENT#2A

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-004A

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	528		16.3		500	102.3		80	120	P
IRON, DISSOLVED	51300		46400		5500	89.8		80	120	P
MANGANESE, DISSOLVED	2020		1540		500	96.8		80	120	P

Comments:

FORM V (Part 2) - IN

5B

POST DIGEST SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#2A

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-008A

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	2490		2000		500	98.2		80	120	P
IRON, DISSOLVED	71300		67200		5500	74.7	A	80	120	P
MANGANESE, DISSOLVED	2240		1750		500	97.2		80	120	P

Comments:

5D

SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-003

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, TOTAL		130		132		1.4		P
CALCIUM, TOTAL		52500		55800		6.1		P
IRON, TOTAL		47300		49800		5.3		P
MAGNESIUM, TOTAL		12500		12700		1.6		P
MANGANESE, TOTAL		2020		2150		6.2		P
POTASSIUM, TOTAL		21900		23200		5.8		P
SODIUM, TOTAL		24700		26200		6.1		P

Comments:

5D

SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-004

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, DISSOLVED		127		125		1.8		P
IRON, DISSOLVED		47600		47700		0.3		P
MANGANESE, DISSOLVED		2080		2090		0.6		P

Comments:

FORM VD - IN

5D

SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#2

Matrix: WATER **SDG Name:** SO8173

Percent Solids: 0.00 **Lab Sample ID:** SO8173-008

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, DISSOLVED		2160		2190		1.5		P
IRON, DISSOLVED		68300		69700		1.9		P
MANGANESE, DISSOLVED		2310		2350		1.8		P

Comments:

FORM VD - IN

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWOK29ICW1

Matrix: WATER **SDG Name:** SO8173

QC Batch ID: OK29ICW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	102	102.5	87	113
CALCIUM	2500	2640	105.6	87	113
IRON	1000	1080	108.5	87	115
MAGNESIUM	5000	5320	106.4	85	113
MANGANESE	500	534	106.8	90	114
POTASSIUM	10000	10600	105.5	86	114
SODIUM	7500	7820	104.3	87	115

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWOK29ICW2

Matrix: WATER **SDG Name:** SO8173

QC Batch ID: OK29ICW2

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	103	103.2	87	113
CALCIUM	2500	2630	105.2	87	113
IRON	1000	1060	106.0	87	115
MAGNESIUM	5000	5310	106.3	85	113
MANGANESE	500	524	104.8	90	114
POTASSIUM	10000	10500	104.8	86	114
SODIUM	7500	7730	103.1	87	115

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT#2L

Matrix: WATER **SDG Name:** SO8173

Lab Sample ID: SO8173-003L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution Result	C	% Difference	Q	M
ARSENIC, TOTAL	19.3		16	J	17.1		P
CALCIUM, TOTAL	42700		42600		0.2		P
IRON, TOTAL	39400		39300		0.3		P
MAGNESIUM, TOTAL	6260		6720		7.3		P
MANGANESE, TOTAL	1280		1270		0.8		P
POTASSIUM, TOTAL	9840		9750		0.9		P
SODIUM, TOTAL	14700		14500		1.4		P

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-FF-EVENT#2L

Matrix: WATER **SDG Name:** SO8173

Lab Sample ID: SO8173-004L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution Result	C	% Difference	Q	M
ARSENIC, DISSOLVED	16.3		16	J	1.8		P
IRON, DISSOLVED	46400		46900		1.1		P
MANGANESE, DISSOLVED	1540		1560		1.3		P

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#2L

Matrix: WATER **SDG Name:** SO8173

Lab Sample ID: SO8173-008L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution Result	C	% Difference	Q	M
ARSENIC, DISSOLVED	2000		2010		0.5		P
IRON, DISSOLVED	67200		67800		0.9		P
MANGANESE, DISSOLVED	1750		1770		1.1		P

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/23/2019

Concentration Units: ug/L

Analyte	PQL/LOQ	IDL	M
ALUMINUM	300	10	P
ARSENIC	8.0	1.4	P
CALCIUM	100	11	P
IRON	100	3.6	P
MAGNESIUM	100	2.9	P
MANGANESE	5.0	0.87	P
POTASSIUM	1000	73	P
SODIUM	1000	12	P

LIMITS of DETECTION

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 06/11/2010

Analyte	LOD	Units	M	EPA Prep./Anal. Method
ARSENIC	5.0	ug/L	P	SW846 3010A / SW846 6010C
CALCIUM	80	ug/L	P	SW846 3010A / SW846 6010C
IRON	80	ug/L	P	SW846 3010A / SW846 6010C
MAGNESIUM	80	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	4.0	ug/L	P	SW846 3010A / SW846 6010C
POTASSIUM	500	ug/L	P	SW846 3010A / SW846 6010C
SODIUM	500	ug/L	P	SW846 3010A / SW846 6010C

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/19/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ARSENIC	1.4	ug/L	P	SW846 3010A / SW846 6010C
CALCIUM	11	ug/L	P	SW846 3010A / SW846 6010C
IRON	5.4	ug/L	P	SW846 3010A / SW846 6010C
MAGNESIUM	7.8	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	1.1	ug/L	P	SW846 3010A / SW846 6010C
POTASSIUM	41	ug/L	P	SW846 3010A / SW846 6010C
SODIUM	24	ug/L	P	SW846 3010A / SW846 6010C

ICP INTERELEMENT CORRECTION FACTORS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Instrument Name: THERMO ICAP 6500 **Instrument ID:** I **Date:** 03/10/2021

Analyte	Wavelength (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	As	Cr	Co	Cu	Mn	Mo	Ni	Ti	V
ALUMINUM	396.15	0.0	0.0006250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0293740	0.0	0.0	0.0
ANTIMONY	206.83	0.0000130	0.0	0.0000150	0.0	0.0000731	0.0160080	0.0	0.0	0.0	-0.0046490	-0.0008980	0.0	-0.0005030
ARSENIC	189.04	-0.0000090	0.0	-0.0001780	0.0	0.0	0.0001984	0.0	0.0	0.0	0.0015170	0.0	0.0	0.0
BARIUM	455.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BERYLLIUM	313.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006836	0.0001220
BORON	208.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0501700	0.0	0.0	0.0
CADMIUM	226.50	0.0	0.0	0.0000850	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0001140	0.0000801	0.0
CALCIUM	315.89	0.0	0.0	0.0	0.0	0.0	0.0026700	0.0008487	0.0	0.0	0.0	0.0	0.0	0.0
CHROMIUM	267.72	0.0	0.0	-0.0000010	0.0	0.0	0.0	0.0	0.0	0.0003640	0.0	0.0	0.0	-0.0000100
COBALT	228.62	0.0	0.0	0.0000050	0.0	0.0	0.0001670	0.0	0.0	0.0	0.0	0.0001562	0.0017840	0.0
COPPER	327.40	0.0000079	0.0	-0.0000147	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006988	0.0004860
GOLD	242.79	0.0	0.0	0.0001110	0.0	0.0	0.0	0.0	0.0	0.0058700	0.0	0.0	0.0	0.0
IRON	259.94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LEAD	220.35	-0.0001590	0.0	0.0000440	0.0	0.0001480	-0.0000772	-0.0000860	0.0004910	0.0	-0.0010840	0.0003270	-0.0000220	0.0
LITHIUM	670.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAGNESIUM	202.58	0.0	0.0	0.0000300	0.0	0.0	0.0	0.1395100	0.0	0.0	0.0145280	0.0	0.0003530	0.0
MANGANESE	257.61	-0.0000050	0.0	0.0000100	0.0000391	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MOLYBDENUM	202.03	0.0	0.0	0.0	0.0	0.0	0.0000270	0.0	0.0	-0.0000204	0.0	0.0	0.0	-0.0001163
NICKEL	231.60	0.0	0.0	-0.0000490	0.0	0.0	0.0	0.0000390	0.0	0.0	0.0034490	0.0	0.0	0.0
POTASSIUM	766.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SELENIUM	196.09	0.0000090	0.0	0.0000320	0.0	0.0003180	0.0	0.0002310	0.0	0.0006280	0.0	0.0	0.0	0.0003040
SILICON	251.61	0.0	0.0	-0.0000150	0.0	0.0	0.0	0.0	0.0	0.0	0.0132630	0.0	0.0105540	0.0
SILVER	328.07	0.0	0.0	-0.0002820	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0008413	0.0
SODIUM	589.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STRONTIUM	421.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THALLIUM	190.86	0.0000030	0.0	0.0000001	0.0	0.0	0.0	0.0023030	-0.0000680	-0.0024730	-0.0000880	0.0	-0.0009840	-0.0078940
TIN	189.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TITANIUM	334.90	0.0	0.0	0.0	0.0	0.0	0.0001510	0.0	0.0	0.0	0.0002130	0.0	0.0	0.0
VANADIUM	292.40	0.0	0.0	0.0000120	0.0	0.0	-0.0053650	0.0	0.0	-0.0001670	-0.0037960	0.0	0.0006990	0.0
ZINC	206.20	0.0	0.0	0.0	0.0	0.0	-0.0010444	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FORM XI - IN

ICP LINEAR RANGES

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 11/25/2020

Concentration Units: ug/L

Analyte	Integration Time (sec)	Linear Range	M
ALUMINUM	5.00	500000	P
ARSENIC	45.00	20000	P
CALCIUM	5.00	500000	P
IRON	5.00	250000	P
MAGNESIUM	45.00	200000	P
MANGANESE	5.00	20000	P
POTASSIUM	5.00	300000	P
SODIUM	5.00	200000	P

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OK29ICW1

Matrix: WATER **SDG Name:** SO8173

Method: P **Prep Date:** 11/29/2021

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWOK29ICW1	LCSWOK29ICW1	0.05	0.05	
PBWOK29ICW1	PBWOK29ICW1	0.05	0.05	
SHM-10-06-EVENT #2	SO8173-001	0.05	0.05	C
SHM-10-06-FF-EVENT #2	SO8173-002	0.05	0.05	C
MW-21-4S-EVENT#2	SO8173-003	0.05	0.05	B
MW-21-4S-EVENT#2P	SO8173-003P	0.05	0.05	B
MW-21-4S-EVENT#2S	SO8173-003S	0.05	0.05	B
MW-21-4S-FF-EVENT#2	SO8173-004	0.05	0.05	I
MW-21-4S-FF-EVENT#2P	SO8173-004P	0.05	0.05	I
MW-21-4S-FF-EVENT#2S	SO8173-004S	0.05	0.05	I
MW-21-3D-EVENT#2	SO8173-005	0.05	0.05	C
MW-21-3D-FF-EVENT#2	SO8173-006	0.05	0.05	C
MW-21-4D-EVENT#2	SO8173-007	0.05	0.05	C

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OK29ICW2

Matrix: WATER **SDG Name:** SO8173

Method: P **Prep Date:** 11/29/2021

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWOK29ICW2	LCSWOK29ICW2	0.05	0.05	
PBWOK29ICW2	PBWOK29ICW2	0.05	0.05	
MW-21-4D-FF-EVENT#2	SO8173-008	0.05	0.05	C
MW-21-4D-FF-EVENT#2P	SO8173-008P	0.05	0.05	C
MW-21-4D-FF-EVENT#2S	SO8173-008S	0.05	0.05	C
MW-21-3S-EVENT#2	SO8173-009	0.05	0.05	C
MW-21-3S-FF-EVENT#2	SO8173-010	0.05	0.05	C
MW-21-2D-EVENT#2	SO8173-011	0.05	0.05	C
MW-21-2D-FF-EVENT#2	SO8173-012	0.05	0.05	C
MW-21-2S-EVENT#2	SO8173-013	0.05	0.05	C
MW-21-2S-FF-EVENT#2	SO8173-014	0.05	0.05	C
MW-21-1S-EVENT#2	SO8173-015	0.05	0.05	C
MW-21-1S-FF-EVENT#2	SO8173-016	0.05	0.05	C
MW-21-1S-EVENT#2-DUP	SO8173-017	0.05	0.05	C
MW-21-1S-FF-EVENT#2-DUP	SO8173-018	0.05	0.05	C
MW-21-1D-EVENT#2	SO8173-019	0.05	0.05	C
MW-21-1D-FF-EVENT#2	SO8173-020	0.05	0.05	C

FORM XIII - IN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Instrument ID: THERMO ICAP 6500 **File Name:** IOK30A

Date: 11/30/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
Blank		1	10:39	AL	AS	CA	FE	MG MN	K	NA
Std 1		1	10:44	AL	AS	CA	FE	MG MN	K	NA
ICV		1	10:48	AL	AS	CA	FE	MG MN	K	NA
ICB		1	10:52	AL	AS	CA	FE	MG MN	K	NA
PQL		1	10:56	AL	AS	CA	FE	MG MN	K	NA
ICSA		1	11:01	AL	AS	CA	FE	MG MN	K	NA
ICSAB		1	11:05	AL	AS	CA	FE	MG MN	K	NA
CCV		1	11:10	AL	AS	CA	FE	MG MN	K	NA
CCB		1	11:14	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	11:18							
ZZZZZZ		1	11:23							
CCV		1	11:28	AL	AS	CA	FE	MG MN	K	NA
CCB		1	11:32	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	11:36							
ZZZZZZ		1	11:40							
LCSWOK29ICW1		1	11:45		AS	CA	FE	MG MN	K	NA
PBWOK29ICW1		1	11:49		AS	CA	FE	MG MN	K	NA
LCSWOK29ICW2		1	11:53		AS	CA	FE	MG MN	K	NA
PBWOK29ICW2		1	11:57		AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	12:02							
ZZZZZZ		1	12:06							
ZZZZZZ		1	12:11							
ZZZZZZ		1	12:15							
CCV		1	12:19	AL	AS	CA	FE	MG MN	K	NA
CCB		1	12:23	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	12:28							
ZZZZZZ		1	12:32							

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Instrument ID: THERMO ICAP 6500 **File Name:** IOK30A

Date: 11/30/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
ZZZZZZ		1	12:36							
ZZZZZZ		1	12:41							
ZZZZZZ		1	12:45							
ZZZZZZ		1	12:49							
ZZZZZZ		1	12:53							
ZZZZZZ		1	12:58							
ZZZZZZ		1	13:02							
ZZZZZZ		1	13:06							
CCV		1	13:11	AL	AS	CA	FE	MG MN	K	NA
CCB		1	13:15	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	13:19							
ZZZZZZ		1	13:23							
ZZZZZZ		5	13:28							
ZZZZZZ		1	13:32							
ZZZZZZ		1	13:36							
ZZZZZZ		1	13:40							
ZZZZZZ		1	13:44							
ZZZZZZ		1	13:49							
ZZZZZZ		1	13:53							
ZZZZZZ		1	13:57							
CCV		1	14:02	AL	AS	CA	FE	MG MN	K	NA
CCB		1	14:06	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	14:10							
ZZZZZZ		1	14:14							
ZZZZZZ		1	14:19							
ZZZZZZ		1	14:23							
ZZZZZZ		1	14:27							

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Instrument ID: THERMO ICAP 6500 **File Name:** IOK30A

Date: 11/30/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
ZZZZZZ		1	14:32							
ZZZZZZ		1	14:36							
ZZZZZZ		1	14:40							
ZZZZZZ		1	14:45							
ZZZZZZ		1	14:49							
CCV		1	14:53	AL	AS	CA	FE	MG MN	K	NA
CCB		1	14:58	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	15:02							
ZZZZZZ		1	15:06							
SO8173-001	SHM-10-06-EVENT #2	1	15:11		AS	CA	FE	MG MN	K	NA
SO8173-002	SHM-10-06-FF-EVENT #2	1	15:15		AS		FE	MN		
SO8173-003	MW-21-4S-EVENT#2	1	15:19		AS	CA	FE	MG MN	K	NA
SO8173-003L	MW-21-4S-EVENT#2L	5	15:23		AS	CA	FE	MG MN	K	NA
SO8173-003A	MW-21-4S-EVENT#2A	1	15:28		AS	CA	FE	MG MN	K	NA
SO8173-003P	MW-21-4S-EVENT#2P	1	15:32		AS	CA	FE	MG MN	K	NA
SO8173-003S	MW-21-4S-EVENT#2S	1	15:36		AS	CA	FE	MG MN	K	NA
SO8173-004	MW-21-4S-FF-EVENT#2	1	15:40		AS		FE	MN		
CCV		1	15:45	AL	AS	CA	FE	MG MN	K	NA
CCB		1	15:49	AL	AS	CA	FE	MG MN	K	NA
SO8173-004L	MW-21-4S-FF-EVENT#2L	5	15:53		AS		FE	MN		
SO8173-004A	MW-21-4S-FF-EVENT#2A	1	15:57		AS		FE	MN		
SO8173-004P	MW-21-4S-FF-EVENT#2P	1	16:02		AS		FE	MN		
SO8173-004S	MW-21-4S-FF-EVENT#2S	1	16:06		AS		FE	MN		
SO8173-005	MW-21-3D-EVENT#2	1	16:10		AS	CA	FE	MG MN	K	NA
SO8173-006	MW-21-3D-FF-EVENT#2	1	16:14		AS		FE	MN		
SO8173-007	MW-21-4D-EVENT#2	1	16:18		AS	CA	FE	MG MN	K	NA
SO8173-008	MW-21-4D-FF-EVENT#2	1	16:23		AS		FE	MN		

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Instrument ID: THERMO ICAP 6500 **File Name:** IOK30A

Date: 11/30/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements							
SO8173-008L	MW-21-4D-FF-EVENT#2L	5	16:27		AS		FE	MN			
SO8173-008A	MW-21-4D-FF-EVENT#2A	1	16:31		AS		FE	MN			
CCV		1	16:35	AL	AS	CA	FE	MG MN	K	NA	
CCB		1	16:40	AL	AS	CA	FE	MG MN	K	NA	
SO8173-008P	MW-21-4D-FF-EVENT#2P	1	16:44		AS		FE	MN			
SO8173-008S	MW-21-4D-FF-EVENT#2S	1	16:48		AS		FE	MN			
SO8173-009	MW-21-3S-EVENT#2	1	16:52		AS	CA	FE	MG MN	K	NA	
SO8173-010	MW-21-3S-FF-EVENT#2	1	16:57		AS		FE	MN			
SO8173-011	MW-21-2D-EVENT#2	1	17:01		AS	CA	FE	MG MN	K	NA	
SO8173-012	MW-21-2D-FF-EVENT#2	1	17:05		AS		FE	MN			
SO8173-013	MW-21-2S-EVENT#2	1	17:09		AS	CA	FE	MG MN	K	NA	
SO8173-014	MW-21-2S-FF-EVENT#2	1	17:14		AS		FE	MN			
SO8173-015	MW-21-1S-EVENT#2	1	17:18		AS	CA	FE	MG MN	K	NA	
SO8173-016	MW-21-1S-FF-EVENT#2	1	17:22		AS		FE	MN			
CCV		1	17:27	AL	AS	CA	FE	MG MN	K	NA	
CCB		1	17:31	AL	AS	CA	FE	MG MN	K	NA	
SO8173-017	MW-21-1S-EVENT#2-DUP	1	17:35		AS	CA	FE	MG MN	K	NA	
SO8173-018	MW-21-1S-FF-EVENT#2-DUP	1	17:40		AS		FE	MN			
SO8173-019	MW-21-1D-EVENT#2	1	17:44		AS	CA	FE	MG MN	K	NA	
SO8173-020	MW-21-1D-FF-EVENT#2	1	17:48		AS		FE	MN			
ZZZZZZ		1	17:53								
ZZZZZZ		1	17:57								
ZZZZZZ		1	18:01								
ZZZZZZ		1	18:06								
ZZZZZZ		1	18:10								
ZZZZZZ		1	18:14								
CCV		1	18:19	AL	AS	CA	FE	MG MN	K	NA	

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO8173

Instrument ID: THERMO ICAP 6500 **File Name:** IOK30A

Date: 11/30/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
CCB		1	18:23	AL	AS	CA	FE	MG MN	K	NA

Raw Data Section

KATAHDIN ANALYTICAL SERVICES, LLC
METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: I (Thermo iCAP 6500) **ANALYST:** EP **ANALYSIS DATE:** 11/30/2021

METHOD: ICP
- ☑ 200.7
- ☑ 6010
- ☑ DOD
- ☐ _____

FILE NAME: IOK30A

REVIEWED
Sam 12-13-21
KATAHDIN ANALYTICAL
METALS SECTION

The pHs of all samples that were tested by direct analysis in this analytical run were checked just prior to analysis and confirmed to be <2. The time of preservation of these samples was checked in the "Measured Turbidity and Preservation of Incoming Samples" logbook to verify that they had been preserved at least 16 hours prior to analysis. These verifications were performed by EP (initals) on 11/30/21 (date). Client ID verified

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
Cal. Blk/ICB/CCB	MW20640	11/09/2021	11/09/2022	0 ug/L
Standard 1	MW20676	11/23/2021	02/04/2022	Varies by Element
ICV	MW20628	11/05/2021	01/27/2022	Varies by Element
PQL	MW20645	11/09/2021	12/21/2021	Varies by Element
LRS1	MW20672	11/19/2021	12/24/2021	Varies by Element
LRS2	MW20673	11/19/2021	12/21/2021	Varies by Element
ICSA	MW20647	11/09/2021	02/09/2022	Varies by Element
ICSAB	MW20648	11/09/2021	01/26/2022	Varies by Element
CCV	MW20677	11/23/2021	02/04/2022	Varies by Element
Internal Standard	MW20661	11/16/2021	02/16/2022	5.0 mg/L Yttrium

Additional Comments and Notes:

Sam 12-13-21

Dilutions: Some samples were diluted based on history or due to interfering element concentrations.

Dilution preparations are as follows:

5x diln.: 2.0 mL of sample (pipet M29) + 8.0 mL of MW20640 (pipet M29)

Post Spike: 0.123mL MW20532 (pipet M27) to 6.0mL of sample (pipet M29)

INSTRUMENT RUNLOG

Instrument: ICAP 6500

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Blank	1.000	IOK30A	11/30/2021	10:39	EP
Std 1	1.000	IOK30A	11/30/2021	10:44	EP
ICV	1.000	IOK30A	11/30/2021	10:48	EP
ICB	1.000	IOK30A	11/30/2021	10:52	EP
PQL	1.000	IOK30A	11/30/2021	10:56	EP
ICSA	1.000	IOK30A	11/30/2021	11:01	EP
ICSAB	1.000	IOK30A	11/30/2021	11:05	EP
CCV	1.000	IOK30A	11/30/2021	11:10	EP
CCB	1.000	IOK30A	11/30/2021	11:14	EP
LRS1	1.000	IOK30A	11/30/2021	11:18	EP
LRS2	1.000	IOK30A	11/30/2021	11:23	EP
CCV	1.000	IOK30A	11/30/2021	11:28	EP
CCB	1.000	IOK30A	11/30/2021	11:32	EP
LCSOOK29ICS1	1.000	IOK30A	11/30/2021	11:36	EP
PBSOK29ICS1	1.000	IOK30A	11/30/2021	11:40	EP
LCSWOK29ICW1	1.000	IOK30A	11/30/2021	11:45	EP
PBWOK29ICW1	1.000	IOK30A	11/30/2021	11:49	EP
LCSWOK29ICW2	1.000	IOK30A	11/30/2021	11:53	EP
PBWOK29ICW2	1.000	IOK30A	11/30/2021	11:57	EP
SO8237-001	1.000	IOK30A	11/30/2021	12:02	EP
SO8070-001	1.000	IOK30A	11/30/2021	12:06	EP
SO8150-001	1.000	IOK30A	11/30/2021	12:11	EP
SO8150-002	1.000	IOK30A	11/30/2021	12:15	EP
CCV	1.000	IOK30A	11/30/2021	12:19	EP
CCB	1.000	IOK30A	11/30/2021	12:23	EP
SO8150-003	1.000	IOK30A	11/30/2021	12:28	EP
SO8150-005	1.000	IOK30A	11/30/2021	12:32	EP
SO7924-001	1.000	IOK30A	11/30/2021	12:36	EP
SO7926-001	1.000	IOK30A	11/30/2021	12:41	EP
SO7927-001	1.000	IOK30A	11/30/2021	12:45	EP
SO8060-005	1.000	IOK30A	11/30/2021	12:49	EP
SO8069-001	1.000	IOK30A	11/30/2021	12:53	EP
SO8069-002	1.000	IOK30A	11/30/2021	12:58	EP
SO8069-003	1.000	IOK30A	11/30/2021	13:02	EP
SO8103-001	1.000	IOK30A	11/30/2021	13:06	EP
CCV	1.000	IOK30A	11/30/2021	13:11	EP
CCB	1.000	IOK30A	11/30/2021	13:15	EP
SO8109-002	1.000	IOK30A	11/30/2021	13:19	EP
SO8121-001	1.000	IOK30A	11/30/2021	13:23	EP
SO8121-001L	5.000	IOK30A	11/30/2021	13:28	EP
SO8121-001A	1.000	IOK30A	11/30/2021	13:32	EP
SO8121-001D	1.000	IOK30A	11/30/2021	13:36	EP
SO8121-001S	1.000	IOK30A	11/30/2021	13:40	EP
SO8121-002	1.000	IOK30A	11/30/2021	13:44	EP

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
SO8121-003	1.000	IOK30A	11/30/2021	13:49	EP
SO8121-004	1.000	IOK30A	11/30/2021	13:53	EP
SO8121-005	1.000	IOK30A	11/30/2021	13:57	EP
CCV	1.000	IOK30A	11/30/2021	14:02	EP
CCB	1.000	IOK30A	11/30/2021	14:06	EP
SO8121-006	1.000	IOK30A	11/30/2021	14:10	EP
SO8140-001	1.000	IOK30A	11/30/2021	14:14	EP
SO8172-001	1.000	IOK30A	11/30/2021	14:19	EP
SO8099-004	1.000	IOK30A	11/30/2021	14:23	EP
SO8118-001	1.000	IOK30A	11/30/2021	14:27	EP
SO8118-002	1.000	IOK30A	11/30/2021	14:32	EP
SO8152-001	1.000	IOK30A	11/30/2021	14:36	EP
SO8152-002	1.000	IOK30A	11/30/2021	14:40	EP
SO8152-003	1.000	IOK30A	11/30/2021	14:45	EP
SO8152-004	1.000	IOK30A	11/30/2021	14:49	EP
CCV	1.000	IOK30A	11/30/2021	14:53	EP
CCB	1.000	IOK30A	11/30/2021	14:58	EP
SO8152-005	1.000	IOK30A	11/30/2021	15:02	EP
SO8152-006	1.000	IOK30A	11/30/2021	15:06	EP
SO8173-001	1.000	IOK30A	11/30/2021	15:11	EP
SO8173-002	1.000	IOK30A	11/30/2021	15:15	EP
SO8173-003	1.000	IOK30A	11/30/2021	15:19	EP
SO8173-003L	5.000	IOK30A	11/30/2021	15:23	EP
SO8173-003A	1.000	IOK30A	11/30/2021	15:28	EP
SO8173-003P	1.000	IOK30A	11/30/2021	15:32	EP
SO8173-003S	1.000	IOK30A	11/30/2021	15:36	EP
SO8173-004	1.000	IOK30A	11/30/2021	15:40	EP
CCV	1.000	IOK30A	11/30/2021	15:45	EP
CCB	1.000	IOK30A	11/30/2021	15:49	EP
SO8173-004L	5.000	IOK30A	11/30/2021	15:53	EP
SO8173-004A	1.000	IOK30A	11/30/2021	15:57	EP
SO8173-004P	1.000	IOK30A	11/30/2021	16:02	EP
SO8173-004S	1.000	IOK30A	11/30/2021	16:06	EP
SO8173-005	1.000	IOK30A	11/30/2021	16:10	EP
SO8173-006	1.000	IOK30A	11/30/2021	16:14	EP
SO8173-007	1.000	IOK30A	11/30/2021	16:18	EP
SO8173-008	1.000	IOK30A	11/30/2021	16:23	EP
SO8173-008L	5.000	IOK30A	11/30/2021	16:27	EP
SO8173-008A	1.000	IOK30A	11/30/2021	16:31	EP
CCV	1.000	IOK30A	11/30/2021	16:35	EP
CCB	1.000	IOK30A	11/30/2021	16:40	EP
SO8173-008P	1.000	IOK30A	11/30/2021	16:44	EP
SO8173-008S	1.000	IOK30A	11/30/2021	16:48	EP
SO8173-009	1.000	IOK30A	11/30/2021	16:52	EP
SO8173-010	1.000	IOK30A	11/30/2021	16:57	EP
SO8173-011	1.000	IOK30A	11/30/2021	17:01	EP
SO8173-012	1.000	IOK30A	11/30/2021	17:05	EP

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
SO8173-013	1.000	IOK30A	11/30/2021	17:09	EP
SO8173-014	1.000	IOK30A	11/30/2021	17:14	EP
SO8173-015	1.000	IOK30A	11/30/2021	17:18	EP
SO8173-016	1.000	IOK30A	11/30/2021	17:22	EP
CCV	1.000	IOK30A	11/30/2021	17:27	EP
CCB	1.000	IOK30A	11/30/2021	17:31	EP
SO8173-017	1.000	IOK30A	11/30/2021	17:35	EP
SO8173-018	1.000	IOK30A	11/30/2021	17:40	EP
SO8173-019	1.000	IOK30A	11/30/2021	17:44	EP
SO8173-020	1.000	IOK30A	11/30/2021	17:48	EP
SO8185-001	1.000	IOK30A	11/30/2021	17:53	EP
SO8185-002	1.000	IOK30A	11/30/2021	17:57	EP
SO8185-003	1.000	IOK30A	11/30/2021	18:01	EP
SO8185-004	1.000	IOK30A	11/30/2021	18:06	EP
SO8185-005	1.000	IOK30A	11/30/2021	18:10	EP
SO8185-006	1.000	IOK30A	11/30/2021	18:14	EP
CCV	1.000	IOK30A	11/30/2021	18:19	EP
CCB	1.000	IOK30A	11/30/2021	18:23	EP
CCV	1.000	IOK30A	11/30/2021	18:27	EP
CCB	1.000	IOK30A	11/30/2021	18:31	EP
PQL	1.000	IOK30A	11/30/2021	18:36	EP
ICSA	1.000	IOK30A	11/30/2021	18:40	EP
ICSAB	1.000	IOK30A	11/30/2021	18:44	EP
CCV	1.000	IOK30A	11/30/2021	18:49	EP
CCB	1.000	IOK30A	11/30/2021	18:53	EP

Intensity Report

Author:

Published: 12/1/2021 7:36:37AM

Notes:

Blank

Method Name: FAST-2016_NO_AU Method Revision: 1,052

Analyst Name: EP

Acquire Date: 11/30/2021 10:39:54AM Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.00008400	Cts/S	0.00005500	65.18	-15.91
Al3961_R		-0.0003700	Cts/S	0.0002560	69.38	-6.956
As1891_A		-0.0003680	Cts/S	0.00002900	7.889	-4.745
B_2089_A		0.0004880	Cts/S	0.00004600	9.424	6.294
Ba4554_R		-0.0003280	Cts/S	0.0001040	31.71	-6.258
Be3130_R		-0.0003000	Cts/S	0.0002460	82.03	-5.746
Ca3158_R		-0.0009830	Cts/S	0.0004650	47.31	-18.54
Cd2265_A		-0.00004800	Cts/S	0.00002600	53.76	-0.6166
Co2286_A		0.0003470	Cts/S	0.00006600	19.02	4.469
Cr2677_A		0.000003000	Cts/S	0.000001000	23.94	-0.5671
Cu3273_A		-0.0002400	Cts/S	0.00001600	6.781	-45.56
Fe2599_R		0.0004570	Cts/S	0.00004100	9.007	8.673
K_7664_R		-0.002534	Cts/S	0.0007420	29.27	-48.28
Li6707_R		0.001044	Cts/S	0.0005120	49.02	19.71
Mg2025_A		-0.0008760	Cts/S	0.0000	0.05394	-11.29
Mn2576_R		-0.0001940	Cts/S	0.0001510	77.68	-3.645
Mo2020_A		0.00005100	Cts/S	0.000005000	9.579	0.6628
Na5895_R		0.001602	Cts/S	0.001026	64.07	30.17
Ni2316_A		-0.00006300	Cts/S	0.00006100	96.89	-0.8121
Pb2203_A		-0.0001070	Cts/S	0.00001800	16.79	-1.378
Sb2068_A		0.00008300	Cts/S	0.00001700	20.89	1.073
Se1960_A		0.0003150	Cts/S	0.00002700	8.598	4.065
Si2516_R		0.001751	Cts/S	0.0003480	19.85	33.31
Sn1899_A		0.0001070	Cts/S	0.00002600	24.31	1.378
Sr4215_R		-0.002057	Cts/S	0.0003530	17.16	-38.96
Ti3349_A		0.000004000	Cts/S	0.00003700	937.8	-0.7603
Tl1908_A		-0.0001290	Cts/S	0.00001400	10.87	-1.665
V_2924_A		-0.00003900	Cts/S	0.000003000	6.601	-7.422
Zn2062_A		0.00009000	Cts/S	0.000009000	9.481	1.164
Y_3600_R		18,983	Cts/S	459.50	2.4206	18,983
Y_2243_A		12,891	Cts/S	12.593	0.097685	12,891
Y_3600_A		190,070	Cts/S	321.49	0.16914	190,070

Std 1

Method Name: FAST-2016_NO_AU Method Revision: 1,052

Analyst Name: EP

Acquire Date: 11/30/2021 10:44:15AM Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1318	Cts/S	0.0008310	0.6304	24,060
Al3961_R		1.300	Cts/S	0.01012	0.7784	24,400
As1891_A		0.04037	Cts/S	0.0001940	0.4816	503.8
B_2089_A		0.1469	Cts/S	0.001004	0.6836	1,833
Ba4554_R		3.330	Cts/S	0.03316	0.9959	62,470
Be3130_R		4.867	Cts/S	0.05316	1.092	91,310
Ca3158_R		1.794	Cts/S	0.01565	0.8721	33,660
Cd2265_A		1.439	Cts/S	0.007529	0.5231	17,960
Co2286_A		0.4035	Cts/S	0.002004	0.4966	5,035
Cr2677_A		0.08113	Cts/S	0.0003650	0.4500	14,810
Cu3273_A		0.06886	Cts/S	0.0002550	0.3708	12,570
Fe2599_R		2.812	Cts/S	0.02754	0.9793	52,760
K_7664_R		0.7486	Cts/S	0.008065	1.077	14,040
Li6707_R		0.5102	Cts/S	0.006846	1.342	9,571

Std 1

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 10:44:15AM
Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Mg2025_A		0.9505	Cts/S	0.005247	0.5521	11,860
Mn2576_R		0.5781	Cts/S	0.004641	0.8029	10,850
Mo2020_A		0.3378	Cts/S	0.001993	0.5901	4,216
Na5895_R		2.426	Cts/S	0.02392	0.9857	45,520
Ni2316_A		0.1725	Cts/S	0.0008730	0.5062	2,153
Pb2203_A		0.1129	Cts/S	0.0004730	0.4186	1,409
Sb2068_A		0.05516	Cts/S	0.0003750	0.6806	688.4
Se1960_A		0.03148	Cts/S	0.0001010	0.3196	392.9
Si2516_R		0.6183	Cts/S	0.008669	1.402	11,600
Sn1899_A		0.05473	Cts/S	0.0001290	0.2358	683.0
Sr4215_R		3.788	Cts/S	0.04206	1.110	71,080
Ti3349_A		0.1694	Cts/S	0.0002850	0.1684	30,940
Tl1908_A		0.06379	Cts/S	0.0002190	0.3435	796.0
V_2924_A		0.07261	Cts/S	0.0001780	0.2445	13,260
Zn2062_A		0.3646	Cts/S	0.001476	0.4049	4,550
Y_3600_R		18,762	Cts/S	200.85	1.0705	18,762
Y_2243_A		12,480	Cts/S	80.808	0.64750	12,480
Y_3600_A		182,600	Cts/S	920.01	0.50384	182,600

ICV

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 10:48:21AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		398.0	ug/L	2.582	0.6488	9,828
Al3961_R		10,270	ug/L	107.7	1.049	10,040
As1891_A		392.0	ug/L	0.8067	0.2058	200.1
B_2089_A		401.1	ug/L	1.075	0.2680	760.1
Ba4554_R		408.3	ug/L	2.009	0.4921	25,550
Be3130_R		408.1	ug/L	1.452	0.3558	37,330
Ca3158_R		10,390	ug/L	118.3	1.139	14,000
Cd2265_A		405.0	ug/L	0.2953	0.07292	7,479
Co2286_A		411.9	ug/L	0.01944	0.004719	2,134
Cr2677_A		405.5	ug/L	4.304	1.061	6,171
Cu3273_A		401.2	ug/L	2.881	0.7181	5,156
Fe2599_R		10,310	ug/L	67.18	0.6519	21,790
K_7664_R		13,900	ug/L	144.6	1.040	7,799
Li6707_R		410.6	ug/L	1.663	0.4050	3,949
Mg2025_A		10,390	ug/L	11.87	0.1142	5,059
Mn2576_R		405.1	ug/L	3.066	0.7567	4,400
Mo2020_A		413.4	ug/L	0.09654	0.02335	1,792
Na5895_R		10,240	ug/L	85.90	0.8391	18,690
Ni2316_A		410.5	ug/L	0.7005	0.1706	907.8
Pb2203_A		413.8	ug/L	2.029	0.4903	598.6
Sb2068_A		404.3	ug/L	0.1834	0.04536	286.7
Se1960_A		407.0	ug/L	0.6574	0.1615	166.8
Si2516_R		10,200	ug/L	108.3	1.062	4,666
Sn1899_A		407.1	ug/L	0.2652	0.06514	286.6
Sr4215_R		405.6	ug/L	2.340	0.5770	28,860
Ti3349_A		405.8	ug/L	2.731	0.6730	12,900
Tl1908_A		420.9	ug/L	1.191	0.2829	343.5
V_2924_A		408.3	ug/L	4.214	1.032	5,557
Zn2062_A		410.8	ug/L	0.2486	0.06051	1,922
Y_3600_R		18,796	Cts/S	330.07	1.7561	18,796
Y_2243_A		12,828	Cts/S	16.411	0.12793	12,828
Y_3600_A		187,580	Cts/S	1,201.7	0.64063	187,580

ICB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 10:52:28AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.09080	ug/L	0.1564	172.3	-13.72
Al3961_R		4.437	ug/L	4.552	102.6	-2.631
As1891_A		0.2386	ug/L	0.8696	364.5	-4.639
B_2089_A		1.170	ug/L	0.07451	6.370	8.514
Ba4554_R		0.3610	ug/L	0.06162	17.07	16.49
Be3130_R		0.09840	ug/L	0.07791	79.17	3.409
Ca3158_R		1.742	ug/L	3.425	196.6	-16.19
Cd2265_A		0.07744	ug/L	0.0006290	0.8126	0.8361
Co2286_A		0.08231	ug/L	0.04293	52.15	4.923
Cr2677_A		0.007005	ug/L	0.5421	7,739	-0.4543
Cu3273_A		-0.4936	ug/L	0.4095	82.95	-52.33
Fe2599_R		6.241	ug/L	1.862	29.84	21.89
K_7664_R		-3.795	ug/L	2.133	56.22	-50.06
Li6707_R		0.3048	ug/L	2.729	895.5	22.54
Mg2025_A		0.9516	ug/L	0.7892	82.93	-10.86
Mn2576_R		0.2316	ug/L	0.3091	133.5	-1.151
Mo2020_A		0.6036	ug/L	0.00006300	0.01041	3.305
Na5895_R		-6.092	ug/L	9.373	153.9	19.03
Ni2316_A		-0.1046	ug/L	0.4539	433.9	-1.040
Pb2203_A		0.3585	ug/L	0.5995	167.2	-0.8593
Sb2068_A		0.9954	ug/L	0.6770	68.01	1.790
Se1960_A		0.4728	ug/L	2.040	431.4	4.273
Si2516_R		4.019	ug/L	7.499	186.6	34.91
Sn1899_A		0.1932	ug/L	0.07294	37.76	1.520
Sr4215_R		-0.09400	ug/L	0.03164	33.66	-45.60
Ti3349_A		0.7117	ug/L	0.09033	12.69	22.29
Tl1908_A		0.1782	ug/L	0.6096	342.1	-1.525
V_2924_A		0.4506	ug/L	0.002626	0.5826	-1.199
Zn2062_A		-0.1351	ug/L	0.03260	24.14	0.5311
Y_3600_R		18,904	Cts/S	192.90	1.0204	18,904
Y_2243_A		12,945	Cts/S	5.1265	0.039604	12,945
Y_3600_A		191,160	Cts/S	291.78	0.15264	191,160

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 10:56:51AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		9.725	ug/L	0.4676	4.808	227.4
Al3961_R		316.5	ug/L	4.933	1.559	301.2
As1891_A		6.957	ug/L	0.02729	0.3922	-1.090
B_2089_A		50.54	ug/L	0.3072	0.6078	100.1
Ba4554_R		5.315	ug/L	0.1320	2.484	325.3
Be3130_R		4.979	ug/L	0.04870	0.9782	447.8
Ca3158_R		105.7	ug/L	0.06649	0.06289	123.7
Cd2265_A		5.195	ug/L	0.02050	0.3946	95.69
Co2286_A		10.26	ug/L	0.1444	1.408	57.80
Cr2677_A		9.986	ug/L	0.07395	0.7405	152.9
Cu3273_A		25.73	ug/L	0.09524	0.3701	291.1
Fe2599_R		104.8	ug/L	0.4366	0.4167	229.2
K_7664_R		1,028	ug/L	13.57	1.320	530.7
Li6707_R		104.5	ug/L	0.6268	0.6000	1,015
Mg2025_A		109.7	ug/L	1.177	1.073	42.97
Mn2576_R		5.101	ug/L	0.1941	3.806	51.57
Mo2020_A		10.46	ug/L	0.07387	0.7059	46.20
Na5895_R		1,023	ug/L	13.10	1.281	1,887
Ni2316_A		10.67	ug/L	0.1906	1.786	22.93

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 10:56:51AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		5.049	ug/L	0.1588	3.146	5.948
Sb2068_A		8.747	ug/L	0.1753	2.004	6.576
Se1960_A		9.709	ug/L	1.650	17.00	7.959
Si2516_R		193.4	ug/L	5.495	2.841	120.4
Sn1899_A		103.1	ug/L	1.293	1.254	73.91
Sr4215_R		10.07	ug/L	0.006665	0.06616	676.5
Ti3349_A		15.14	ug/L	0.04464	0.2948	485.1
Tl1908_A		15.47	ug/L	0.009391	0.06069	11.07
V_2924_A		10.35	ug/L	0.3546	3.428	135.0
Zn2062_A		20.73	ug/L	0.03116	0.1503	98.60
Y_3600_R		18,724	Cts/S	123.81	0.66123	18,724
Y_2243_A		12,887	Cts/S	43.308	0.33607	12,887
Y_3600_A		189,420	Cts/S	328.11	0.17322	189,420

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:01:11AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.847	ug/L	0.4363	15.33	-502.3
Al3961_R		498,500	ug/L	11,470	2.301	468,600
As1891_A		0.2222	ug/L	1.766	794.8	-23.44
B_2089_A		-0.1743	ug/L	0.1527	87.59	5.146
Ba4554_R		1.626	ug/L	0.1822	11.21	92.02
Be3130_R		-0.03162	ug/L	0.01682	53.21	-8.375
Ca3158_R		477,500	ug/L	10,940	2.292	620,300
Cd2265_A		-1.237	ug/L	0.1350	10.91	405.6
Co2286_A		-0.4725	ug/L	0.2550	53.97	5.626
Cr2677_A		1.462	ug/L	0.07879	5.389	42.89
Cu3273_A		-3.516	ug/L	0.6710	19.09	-53.21
Fe2599_R		189,100	ug/L	1,215	0.6422	384,900
K_7664_R		24.34	ug/L	27.22	111.8	-32.63
Li6707_R		8.787	ug/L	1.156	13.16	99.84
Mg2025_A		413,400	ug/L	367.3	0.08884	175,600
Mn2576_R		0.1530	ug/L	0.2581	168.6	15.60
Mo2020_A		-1.670	ug/L	0.2221	13.30	-5.759
Na5895_R		77.25	ug/L	0.2082	0.2695	164.5
Ni2316_A		-1.406	ug/L	0.3478	24.74	-25.86
Pb2203_A		0.2248	ug/L	1.824	811.5	-63.40
Sb2068_A		2.202	ug/L	0.7165	32.54	7.724
Se1960_A		-1.106	ug/L	3.200	289.3	12.11
Si2516_R		-1.130	ug/L	5.221	462.0	17.37
Sn1899_A		4.261	ug/L	1.018	23.88	3.816
Sr4215_R	W	5.028	ug/L	0.2084	4.145	307.7
Ti3349_A		1.608	ug/L	0.06674	4.152	43.81
Tl1908_A		-3.353	ug/L	0.2139	6.378	-2.987
V_2924_A		-1.187	ug/L	0.3674	30.95	25.39
Zn2062_A		1.022	ug/L	0.09133	8.937	5.197
Y_3600_R		18,094	Cts/S	6.2841	0.034731	18,094
Y_2243_A		11,234	Cts/S	1.7507	0.015584	11,234
Y_3600_A		163,450	Cts/S	1,011.3	0.61876	163,450

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:05:41AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:05:41AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		214.4	ug/L	0.1674	0.07809	4,104
Al3961_R		497,700	ug/L	11,750	2.361	471,400
As1891_A		97.60	ug/L	1.216	1.246	21.69
B_2089_A		465.7	ug/L	1.046	0.2247	780.9
Ba4554_R		502.0	ug/L	3.001	0.5979	30,460
Be3130_R		494.2	ug/L	4.226	0.8552	43,840
Ca3158_R		477,000	ug/L	4,617	0.9681	624,200
Cd2265_A		919.0	ug/L	2.328	0.2533	15,410
Co2286_A		454.8	ug/L	2.282	0.5017	2,092
Cr2677_A		484.7	ug/L	0.4217	0.08700	6,499
Cu3273_A		514.0	ug/L	1.472	0.2864	5,828
Fe2599_R		187,500	ug/L	1,729	0.9220	384,400
K_7664_R		20,750	ug/L	250.5	1.207	11,320
Li6707_R		529.1	ug/L	3.183	0.6017	4,929
Mg2025_A		409,400	ug/L	1,063	0.2598	175,900
Mn2576_R		475.2	ug/L	3.188	0.6709	5,023
Mo2020_A		479.0	ug/L	1.985	0.4144	1,839
Na5895_R		20,620	ug/L	240.5	1.167	36,470
Ni2316_A		892.3	ug/L	3.343	0.3747	1,723
Pb2203_A		45.76	ug/L	1.648	3.601	-5.753
Sb2068_A		589.8	ug/L	4.773	0.8092	375.7
Se1960_A		46.55	ug/L	0.7475	1.606	29.13
Si2516_R		1,989	ug/L	6.667	0.3352	897.9
Sn1899_A		453.8	ug/L	0.09459	0.02084	282.9
Sr4215_R		499.2	ug/L	3.012	0.6034	34,450
Ti3349_A		500.3	ug/L	0.6608	0.1321	13,960
Tl1908_A		83.35	ug/L	0.1005	0.1206	60.58
V_2924_A		499.6	ug/L	1.365	0.2733	6,016
Zn2062_A		916.8	ug/L	3.214	0.3506	3,801
Y_3600_R		18,228	Cts/S	26.600	0.14593	18,228
Y_2243_A		11,364	Cts/S	17.567	0.15459	11,364
Y_3600_A		164,690	Cts/S	64.850	0.039378	164,690

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:10:07AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		501.1	ug/L	0.009530	0.001902	12,450
Al3961_R		12,850	ug/L	109.4	0.8515	12,690
As1891_A		506.9	ug/L	1.660	0.3275	260.5
B_2089_A		501.7	ug/L	4.120	0.8212	950.1
Ba4554_R		505.3	ug/L	3.292	0.6514	31,960
Be3130_R		501.2	ug/L	1.196	0.2387	46,330
Ca3158_R		12,840	ug/L	71.89	0.5601	17,490
Cd2265_A		505.4	ug/L	3.753	0.7425	9,343
Co2286_A		513.4	ug/L	3.391	0.6606	2,662
Cr2677_A		504.3	ug/L	0.8798	0.1745	7,720
Cu3273_A		492.6	ug/L	1.262	0.2562	6,378
Fe2599_R		12,750	ug/L	18.43	0.1446	27,240
K_7664_R		12,660	ug/L	149.6	1.182	7,176
Li6707_R		504.7	ug/L	3.076	0.6094	4,901
Mg2025_A		13,030	ug/L	9.478	0.07272	6,359
Mn2576_R		510.0	ug/L	5.273	1.034	5,599
Mo2020_A		507.4	ug/L	4.333	0.8540	2,202
Na5895_R		12,610	ug/L	142.9	1.133	23,260
Ni2316_A		507.2	ug/L	3.852	0.7594	1,123

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:10:07AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		513.0	ug/L	2.466	0.4806	743.3
Sb2068_A		510.1	ug/L	3.609	0.7074	362.0
Se1960_A		504.7	ug/L	0.9112	0.1805	206.1
Si2516_R		12,920	ug/L	77.38	0.5989	5,968
Sn1899_A		504.7	ug/L	4.380	0.8679	355.4
Sr4215_R		501.5	ug/L	1.591	0.3172	36,070
Ti3349_A		498.8	ug/L	1.467	0.2941	15,950
Tl1908_A		522.1	ug/L	3.636	0.6963	426.9
V_2924_A		505.4	ug/L	0.01873	0.003705	6,921
Zn2062_A		507.2	ug/L	3.581	0.7060	2,376
Y_3600_R		18,997	Cts/S	245.94	1.2946	18,997
Y_2243_A		12,844	Cts/S	32.643	0.25415	12,844
Y_3600_A		188,700	Cts/S	142.44	0.075486	188,700

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:14:14AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3235	ug/L	0.1288	39.83	-7.873
Al3961_R		15.40	ug/L	10.56	68.59	8.444
As1891_A		0.6402	ug/L	0.2952	46.11	-4.407
B_2089_A		1.585	ug/L	0.1758	11.09	9.254
Ba4554_R		0.2076	ug/L	0.04952	23.86	6.866
Be3130_R		0.1276	ug/L	0.009609	7.529	6.081
Ca3158_R		3.061	ug/L	2.257	73.74	-14.50
Cd2265_A		0.3026	ug/L	0.09025	29.82	4.996
Co2286_A		0.3510	ug/L	0.1021	29.08	6.298
Cr2677_A		0.3218	ug/L	0.1698	52.77	4.434
Cu3273_A		0.5892	ug/L	0.5096	86.48	-38.26
Fe2599_R		6.960	ug/L	0.1632	2.344	23.68
K_7664_R		3.429	ug/L	32.53	948.6	-46.06
Li6707_R		2.018	ug/L	0.7664	37.97	39.70
Mg2025_A		15.16	ug/L	1.047	6.907	-3.874
Mn2576_R		0.1186	ug/L	0.2519	212.4	-2.337
Mo2020_A		0.8252	ug/L	0.2164	26.22	4.254
Na5895_R		-0.05567	ug/L	3.400	6,108	30.36
Ni2316_A		0.1390	ug/L	0.02906	20.90	-0.4932
Pb2203_A		0.1383	ug/L	0.07574	54.78	-1.179
Sb2068_A		0.7127	ug/L	0.9049	127.0	1.577
Se1960_A		1.506	ug/L	0.2854	18.96	4.669
Si2516_R		-4.505	ug/L	12.86	285.4	31.24
Sn1899_A		0.7719	ug/L	0.8029	104.0	1.922
Sr4215_R		-0.08704	ug/L	0.1251	143.7	-45.39
Ti3349_A		1.021	ug/L	0.08290	8.121	32.47
Tl1908_A		0.4943	ug/L	1.359	274.9	-1.259
V_2924_A		0.4001	ug/L	0.4064	101.6	-1.959
Zn2062_A		0.4801	ug/L	0.09994	20.82	3.420
Y_3600_R		19,093	Cts/S	730.68	3.8270	19,093
Y_2243_A		12,889	Cts/S	26.985	0.20936	12,889
Y_3600_A		192,110	Cts/S	1,201.2	0.62526	192,110

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:18:36AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:18:36AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2,025	ug/L	10.56	0.5217	48,470
Al3961_R		36.77	ug/L	6.161	16.76	216.0
As1891_A		20,160	ug/L	175.3	0.8695	10,210
B_2089_A		19,990	ug/L	170.2	0.8516	35,710
Ba4554_R		19,640	ug/L	52.21	0.2658	1,239,000
Be3130_R		19,680	ug/L	99.58	0.5060	1,815,000
Ca3158_R		5.645	ug/L	2.673	47.36	5.211
Cd2265_A		18,940	ug/L	22.92	0.1210	336,600
Co2286_A		20,210	ug/L	198.6	0.9829	100,900
Cr2677_A		19,810	ug/L	120.5	0.6081	293,000
Cu3273_A		19,870	ug/L	34.48	0.1735	250,100
Fe2599_R		0.6209	ug/L	1.187	191.2	9.996
K_7664_R		11.53	ug/L	17.89	155.1	-41.48
Li6707_R		20,360	ug/L	89.10	0.4376	196,400
Mg2025_A		-120.4	ug/L	24.51	20.35	1,304
Mn2576_R		19,940	ug/L	123.2	0.6180	218,500
Mo2020_A		5,133	ug/L	47.24	0.9203	21,480
Na5895_R		27.37	ug/L	1.421	5.192	80.65
Ni2316_A		20,050	ug/L	172.9	0.8625	42,710
Pb2203_A		20,470	ug/L	171.2	0.8363	28,750
Sb2068_A		20,350	ug/L	205.8	1.011	13,890
Se1960_A		20,140	ug/L	170.9	0.8485	7,767
Si2516_R		78.13	ug/L	40.14	51.38	177.9
Sn1899_A		19,590	ug/L	135.6	0.6919	13,260
Sr4215_R		19,540	ug/L	402.2	2.058	1,403,000
Ti3349_A		19,670	ug/L	159.1	0.8090	607,300
Tl1908_A		19,960	ug/L	175.0	0.8769	15,810
V_2924_A		20,030	ug/L	119.5	0.5968	266,300
Zn2062_A		19,400	ug/L	142.1	0.7323	87,650
Y_3600_R		18,947	Cts/S	110.44	0.58288	18,947
Y_2243_A		12,392	Cts/S	54.506	0.43984	12,392
Y_3600_A		182,320	Cts/S	551.29	0.30237	182,320

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:23:31AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		3.168	ug/L	0.2120	6.691	-623.6
Al3961_R		489,700	ug/L	3,518	0.7184	477,700
As1891_A		0.007751	ug/L	1.893	24,430	-26.22
B_2089_A		34.15	ug/L	4.471	13.09	62.17
Ba4554_R		4.701	ug/L	0.4628	9.843	288.0
Be3130_R		3.486	ug/L	0.4858	13.94	312.6
Ca3158_R		464,400	ug/L	21.98	0.004733	626,000
Cd2265_A		-0.4059	ug/L	0.2920	71.94	519.5
Co2286_A		2.263	ug/L	0.07319	3.234	19.34
Cr2677_A		-2.491	ug/L	0.1567	6.291	-4.701
Cu3273_A		-4.820	ug/L	0.1377	2.856	-38.20
Fe2599_R		227,900	ug/L	905.3	0.3973	481,100
K_7664_R		303,700	ug/L	3,040	1.001	171,200
Li6707_R		12.00	ug/L	0.5821	4.852	134.3
Mg2025_A	F	170,500	ug/L	408.3	0.2394	74,340
Mn2576_R		12.11	ug/L	0.1233	1.018	57.22
Mo2020_A		3.129	ug/L	0.9815	31.37	12.77
Na5895_R		195,400	ug/L	72.30	0.03701	355,800
Ni2316_A		0.4836	ug/L	0.04334	8.961	-27.45

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:23:31AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		3.444	ug/L	2.307	66.98	-59.81
Sb2068_A		6.093	ug/L	0.7863	12.91	11.22
Se1960_A		-1.559	ug/L	0.3056	19.60	12.99
Si2516_R	F	19,500	ug/L	210.6	1.080	8,862
Sn1899_A		8.375	ug/L	1.266	15.12	6.505
Sr4215_R		9.394	ug/L	0.4226	4.499	630.1
Ti3349_A		9.622	ug/L	0.7887	8.197	272.5
Tl1908_A		0.3097	ug/L	0.5041	162.7	-0.4477
V_2924_A		0.5492	ug/L	0.2892	52.66	56.80
Zn2062_A		4.835	ug/L	0.5174	10.70	21.38
Y_3600_R		18,776	Cts/S	205.30	1.0934	18,776
Y_2243_A		11,529	Cts/S	41.197	0.35732	11,529
Y_3600_A		167,620	Cts/S	1,400.8	0.83570	167,620

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:28:06AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		506.4	ug/L	1.397	0.2759	12,570
Al3961_R		12,820	ug/L	93.26	0.7273	12,630
As1891_A		511.2	ug/L	2.003	0.3919	263.2
B_2089_A		521.7	ug/L	2.621	0.5024	988.8
Ba4554_R		506.5	ug/L	5.160	1.019	31,930
Be3130_R		501.4	ug/L	3.679	0.7337	46,210
Ca3158_R		12,860	ug/L	79.36	0.6171	17,470
Cd2265_A		506.9	ug/L	1.142	0.2253	9,388
Co2286_A		518.4	ug/L	0.7511	0.1449	2,693
Cr2677_A		513.0	ug/L	0.2393	0.04665	7,841
Cu3273_A		496.1	ug/L	0.8927	0.1799	6,414
Fe2599_R		12,850	ug/L	132.6	1.031	27,380
K_7664_R		12,880	ug/L	98.43	0.7641	7,281
Li6707_R		506.2	ug/L	8.215	1.623	4,900
Mg2025_A		13,090	ug/L	54.29	0.4146	6,399
Mn2576_R		515.8	ug/L	3.478	0.6743	5,645
Mo2020_A		512.0	ug/L	1.116	0.2179	2,226
Na5895_R		12,680	ug/L	59.78	0.4713	23,330
Ni2316_A		511.3	ug/L	1.318	0.2578	1,134
Pb2203_A		514.6	ug/L	1.998	0.3884	746.9
Sb2068_A		517.1	ug/L	0.9068	0.1754	367.6
Se1960_A		512.2	ug/L	0.9873	0.1928	209.5
Si2516_R		12,930	ug/L	110.7	0.8560	5,954
Sn1899_A		507.6	ug/L	0.9872	0.1945	358.1
Sr4215_R		502.3	ug/L	6.165	1.227	36,010
Ti3349_A		512.2	ug/L	0.6935	0.1354	16,350
Tl1908_A	W	529.1	ug/L	1.052	0.1989	433.4
V_2924_A		515.4	ug/L	3.365	0.6529	7,047
Zn2062_A		510.0	ug/L	1.110	0.2176	2,393
Y_3600_R		18,936	Cts/S	46.601	0.24609	18,936
Y_2243_A		12,867	Cts/S	2.3607	0.018348	12,867
Y_3600_A		188,390	Cts/S	489.03	0.25958	188,390

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:32:13AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:32:13AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.7110	ug/L	0.04717	6.634	1.959
Al3961_R		13.48	ug/L	1.455	10.80	6.313
As1891_A		0.9341	ug/L	0.1871	20.03	-4.263
B_2089_A	W	13.30	ug/L	0.7923	5.957	30.99
Ba4554_R		0.4128	ug/L	0.02542	6.158	19.86
Be3130_R		0.2641	ug/L	0.005799	2.196	18.65
Ca3158_R		7.905	ug/L	4.764	60.27	-7.872
Cd2265_A		0.1532	ug/L	0.09586	62.57	2.252
Co2286_A		0.1828	ug/L	0.03757	20.56	5.441
Cr2677_A		0.1717	ug/L	0.5431	316.4	2.070
Cu3273_A		0.4349	ug/L	0.5780	132.9	-40.31
Fe2599_R		8.939	ug/L	0.7534	8.428	27.77
K_7664_R		81.48	ug/L	35.26	43.28	-1.656
Li6707_R		1.551	ug/L	0.9666	62.32	34.81
Mg2025_A		7.553	ug/L	1.271	16.83	-7.602
Mn2576_R		0.1081	ug/L	0.2167	200.4	-2.496
Mo2020_A		1.159	ug/L	0.1768	15.26	5.724
Na5895_R		20.26	ug/L	4.030	19.89	67.72
Ni2316_A		0.3104	ug/L	0.1634	52.65	-0.1108
Pb2203_A		0.4706	ug/L	0.01649	3.505	-0.6951
Sb2068_A		0.7011	ug/L	1.310	186.8	1.577
Se1960_A		0.3213	ug/L	1.066	331.8	4.205
Si2516_R		-1.762	ug/L	5.633	319.7	32.43
Sn1899_A		0.5083	ug/L	0.05956	11.72	1.740
Sr4215_R		0.05265	ug/L	0.02199	41.76	-35.26
Ti3349_A		1.471	ug/L	0.008859	0.6022	47.18
Tl1908_A		0.1474	ug/L	0.6764	458.9	-1.545
V_2924_A		0.4789	ug/L	0.1044	21.79	-0.8552
Zn2062_A		0.4883	ug/L	0.03563	7.295	3.467
Y_3600_R		18,984	Cts/S	32.671	0.17210	18,984
Y_2243_A		12,918	Cts/S	103.21	0.79901	12,918
Y_3600_A		192,390	Cts/S	1,655.5	0.86049	192,390

LCSOOK29ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:36:35AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		48.91	ug/L	0.2512	0.5135	1,195
Al3961_R		2,035	ug/L	29.08	1.429	1,981
As1891_A		98.92	ug/L	0.7713	0.7797	46.67
B_2089_A		502.3	ug/L	2.515	0.5007	925.9
Ba4554_R		2,037	ug/L	28.43	1.396	127,200
Be3130_R		50.46	ug/L	0.6320	1.253	4,603
Ca3158_R		2,529	ug/L	54.54	2.156	3,389
Cd2265_A		252.0	ug/L	0.8172	0.3243	4,599
Co2286_A		529.2	ug/L	2.532	0.4784	2,717
Cr2677_A		205.5	ug/L	1.639	0.7975	3,153
Cu3273_A		249.2	ug/L	1.631	0.6545	3,207
Fe2599_R		1,046	ug/L	23.41	2.238	2,216
K_7664_R		10,180	ug/L	165.7	1.629	5,688
Li6707_R		512.3	ug/L	5.783	1.129	4,913
Mg2025_A		5,113	ug/L	19.18	0.3751	2,484
Mn2576_R		511.9	ug/L	6.892	1.346	5,553
Mo2020_A		107.5	ug/L	0.3704	0.3446	462.0
Na5895_R		7,493	ug/L	116.8	1.559	13,660
Ni2316_A		518.9	ug/L	1.880	0.3623	1,133

LCSOOK29ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:36:35AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		104.1	ug/L	1.406	1.350	148.4
Sb2068_A		100.9	ug/L	0.4151	0.4113	68.30
Se1960_A		101.9	ug/L	0.3125	0.3065	44.46
Si2516_R		924.1	ug/L	20.99	2.272	454.5
Sn1899_A		561.6	ug/L	1.346	0.2396	391.5
Sr4215_R		506.2	ug/L	6.845	1.352	35,960
Ti3349_A		508.0	ug/L	3.960	0.7796	16,270
Tl1908_A		106.0	ug/L	0.3989	0.3762	85.36
V_2924_A		518.1	ug/L	2.339	0.4515	7,151
Zn2062_A		513.6	ug/L	2.436	0.4743	2,383
Y_3600_R		18,762	Cts/S	127.25	0.67822	18,762
Y_2243_A		12,717	Cts/S	14.290	0.11237	12,717
Y_3600_A		189,130	Cts/S	1,796.2	0.94973	189,130

PBSOK29ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:40:47AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1923	ug/L	0.2229	115.9	-11.22
Al3961_R		27.68	ug/L	3.728	13.47	20.27
As1891_A		-0.5930	ug/L	0.7533	127.0	-5.087
B_2089_A		10.38	ug/L	0.1016	0.9786	25.65
Ba4554_R		0.7829	ug/L	0.1090	13.92	43.23
Be3130_R		0.03243	ug/L	0.04549	140.3	-2.760
Ca3158_R		13.70	ug/L	3.024	22.08	0.01281
Cd2265_A		0.04001	ug/L	0.08295	207.3	0.1464
Co2286_A		-0.05537	ug/L	0.05343	96.49	4.220
Cr2677_A		0.8654	ug/L	0.1150	13.29	12.90
Cu3273_A		1.152	ug/L	0.03028	2.628	-30.75
Fe2599_R		5.651	ug/L	1.078	19.08	20.73
K_7664_R		62.93	ug/L	15.70	24.95	-12.20
Li6707_R		1.454	ug/L	0.7347	50.53	33.84
Mg2025_A		2.066	ug/L	0.4808	23.28	-10.34
Mn2576_R		0.05916	ug/L	0.2863	484.0	-3.029
Mo2020_A		0.6027	ug/L	0.06384	10.59	3.306
Na5895_R		26.99	ug/L	5.086	18.85	80.03
Ni2316_A		0.1959	ug/L	0.2609	133.2	-0.3704
Pb2203_A		-0.2827	ug/L	0.3831	135.5	-1.804
Sb2068_A		1.422	ug/L	0.3089	21.72	1.716
Se1960_A		0.4767	ug/L	1.454	305.0	4.285
Si2516_R		-3.926	ug/L	6.515	166.0	31.41
Sn1899_A	W	51.75	ug/L	0.8716	1.684	38.03
Sr4215_R		0.0009660	ug/L	0.1422	14,720	-38.95
Ti3349_A		1.346	ug/L	0.008630	0.6413	42.98
Tl1908_A		-0.3691	ug/L	0.4189	113.5	-1.982
V_2924_A		0.3072	ug/L	0.07143	23.25	-3.244
Zn2062_A		0.5790	ug/L	0.02950	5.095	3.907
Y_3600_R		18,967	Cts/S	30.511	0.16087	18,967
Y_2243_A		12,967	Cts/S	104.96	0.80944	12,967
Y_3600_A		191,920	Cts/S	554.44	0.28889	191,920

LCSWOK29ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:45:09AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LCSWOK29ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:45:09AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		50.81	ug/L	0.6937	1.365	1,247
Al3961_R		2,141	ug/L	30.14	1.408	2,078
As1891_A		102.5	ug/L	0.8199	0.7997	48.76
B_2089_A		517.1	ug/L	1.394	0.2696	957.2
Ba4554_R		2,117	ug/L	21.59	1.020	131,900
Be3130_R		52.59	ug/L	0.4443	0.8450	4,783
Ca3158_R		2,640	ug/L	44.05	1.669	3,528
Cd2265_A		262.0	ug/L	0.06294	0.02403	4,801
Co2286_A		550.5	ug/L	1.040	0.1890	2,838
Cr2677_A		212.9	ug/L	1.627	0.7641	3,280
Cu3273_A		260.5	ug/L	2.171	0.8337	3,368
Fe2599_R		1,085	ug/L	5.533	0.5098	2,292
K_7664_R		10,550	ug/L	168.4	1.596	5,880
Li6707_R		525.8	ug/L	1.212	0.2306	5,027
Mg2025_A		5,318	ug/L	16.17	0.3040	2,596
Mn2576_R		534.2	ug/L	10.29	1.926	5,777
Mo2020_A		110.1	ug/L	0.2941	0.2671	475.5
Na5895_R		7,824	ug/L	131.7	1.683	14,220
Ni2316_A		539.5	ug/L	0.1914	0.03548	1,183
Pb2203_A		107.8	ug/L	0.1415	0.1312	154.4
Sb2068_A		106.1	ug/L	0.8974	0.8460	72.49
Se1960_A		105.6	ug/L	0.4785	0.4530	46.12
Si2516_R		1,073	ug/L	34.14	3.182	520.4
Sn1899_A		530.5	ug/L	0.9200	0.1734	371.5
Sr4215_R		521.9	ug/L	4.890	0.9370	36,970
Ti3349_A		525.7	ug/L	1.069	0.2034	16,910
Tl1908_A		109.6	ug/L	1.039	0.9485	88.67
V_2924_A		538.0	ug/L	3.572	0.6640	7,457
Zn2062_A		533.5	ug/L	0.7348	0.1378	2,486
Y_3600_R		18,708	Cts/S	410.06	2.1919	18,708
Y_2243_A		12,773	Cts/S	15.500	0.12135	12,773
Y_3600_A		189,920	Cts/S	957.78	0.50431	189,920

PBWOK29ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:49:21AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2451	ug/L	0.1029	41.97	-22.30
Al3961_R		8.629	ug/L	11.14	129.1	1.477
As1891_A		-0.2710	ug/L	1.109	409.4	-4.880
B_2089_A		7.218	ug/L	0.4229	5.860	19.60
Ba4554_R		0.7444	ug/L	0.2067	27.77	40.79
Be3130_R		-0.01060	ug/L	0.01581	149.2	-6.696
Ca3158_R		4.749	ug/L	1.551	32.67	-12.18
Cd2265_A		0.07388	ug/L	0.04247	57.48	0.7738
Co2286_A		-0.04914	ug/L	0.05954	121.2	4.214
Cr2677_A		0.2027	ug/L	0.1488	73.41	2.579
Cu3273_A		0.4447	ug/L	0.2754	61.94	-40.04
Fe2599_R		9.576	ug/L	1.086	11.35	29.13
K_7664_R		26.58	ug/L	8.920	33.56	-32.96
Li6707_R		1.633	ug/L	0.9804	60.03	35.59
Mg2025_A		2.092	ug/L	1.130	54.03	-10.26
Mn2576_R		0.3288	ug/L	0.3779	114.9	-0.06390
Mo2020_A		0.1844	ug/L	0.1561	84.63	1.462
Na5895_R		6.383	ug/L	10.00	156.7	42.12
Ni2316_A		-0.2883	ug/L	0.01422	4.933	-1.446

PBWOK29ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:49:21AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.3303	ug/L	0.2934	88.83	-1.859
Sb2068_A		0.1529	ug/L	0.4134	270.5	1.176
Se1960_A		1.464	ug/L	0.08656	5.912	4.644
Si2516_R		-1.979	ug/L	12.55	634.3	32.31
Sn1899_A		0.6418	ug/L	0.1361	21.21	1.827
Sr4215_R		-0.02419	ug/L	0.09833	406.6	-40.77
Ti3349_A		0.8689	ug/L	0.08778	10.10	27.43
Tl1908_A		-0.4132	ug/L	0.2966	71.79	-2.001
V_2924_A		0.3950	ug/L	0.03120	7.897	-1.954
Zn2062_A		-0.06611	ug/L	0.04466	67.56	0.8505
Y_3600_R		18,982	Cts/S	75.876	0.39972	18,982
Y_2243_A		12,867	Cts/S	25.531	0.19842	12,867
Y_3600_A		191,630	Cts/S	363.14	0.18951	191,630

LCSWOK29ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:53:42AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		50.60	ug/L	0.09932	0.1963	1,229
Al3961_R		2,099	ug/L	26.36	1.256	2,043
As1891_A		103.2	ug/L	0.6603	0.6400	49.04
B_2089_A		511.2	ug/L	1.746	0.3417	945.3
Ba4554_R		2,080	ug/L	2.008	0.09655	129,900
Be3130_R		51.33	ug/L	0.1034	0.2014	4,682
Ca3158_R		2,630	ug/L	27.99	1.064	3,524
Cd2265_A		260.4	ug/L	1.036	0.3977	4,768
Co2286_A		537.6	ug/L	1.734	0.3226	2,769
Cr2677_A		211.4	ug/L	2.381	1.126	3,221
Cu3273_A		260.1	ug/L	0.2337	0.08984	3,327
Fe2599_R		1,060	ug/L	1.997	0.1883	2,246
K_7664_R		10,480	ug/L	98.40	0.9393	5,857
Li6707_R		523.9	ug/L	2.433	0.4643	5,024
Mg2025_A		5,313	ug/L	12.69	0.2389	2,590
Mn2576_R		524.2	ug/L	4.651	0.8872	5,686
Mo2020_A		109.2	ug/L	0.3208	0.2936	471.1
Na5895_R		7,733	ug/L	21.21	0.2742	14,100
Ni2316_A		526.4	ug/L	1.542	0.2930	1,153
Pb2203_A		106.8	ug/L	0.4566	0.4275	152.8
Sb2068_A		104.9	ug/L	1.415	1.348	71.63
Se1960_A		104.0	ug/L	0.9193	0.8840	45.42
Si2516_R		1,045	ug/L	9.464	0.9059	509.2
Sn1899_A		526.4	ug/L	1.250	0.2375	368.2
Sr4215_R		521.1	ug/L	1.620	0.3109	37,020
Ti3349_A		525.7	ug/L	2.251	0.4281	16,720
Tl1908_A		108.1	ug/L	0.5670	0.5245	87.36
V_2924_A		536.8	ug/L	3.555	0.6622	7,360
Zn2062_A		523.0	ug/L	1.264	0.2417	2,435
Y_3600_R		18,761	Cts/S	10.765	0.057381	18,761
Y_2243_A		12,758	Cts/S	32.334	0.25344	12,758
Y_3600_A		187,840	Cts/S	984.85	0.52430	187,840

PBWOK29ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:57:54AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

PBWOK29ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 11:57:54AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1009	ug/L	0.07587	75.18	-18.63
Al3961_R		10.76	ug/L	0.06215	0.5777	3.596
As1891_A		-0.7579	ug/L	1.365	180.1	-5.155
B_2089_A		5.340	ug/L	0.05077	0.9508	16.20
Ba4554_R		0.2012	ug/L	0.1505	74.82	6.499
Be3130_R		0.01482	ug/L	0.04672	315.1	-4.355
Ca3158_R		4.598	ug/L	2.449	53.26	-12.37
Cd2265_A		0.02655	ug/L	0.004548	17.13	-0.09779
Co2286_A		-0.01190	ug/L	0.05385	452.5	4.423
Cr2677_A		0.2625	ug/L	0.07648	29.13	3.512
Cu3273_A		0.5470	ug/L	0.1968	35.97	-38.68
Fe2599_R		10.23	ug/L	2.406	23.53	30.50
K_7664_R		-9.684	ug/L	8.354	86.27	-53.59
Li6707_R		-0.6056	ug/L	0.04613	7.618	13.96
Mg2025_A		2.903	ug/L	2.624	90.39	-9.901
Mn2576_R		0.3527	ug/L	0.1046	29.65	0.1877
Mo2020_A		0.1737	ug/L	0.1255	72.25	1.421
Na5895_R		9.202	ug/L	8.985	97.64	47.29
Ni2316_A		-0.4217	ug/L	0.1923	45.61	-1.747
Pb2203_A		0.07120	ug/L	0.02742	38.52	-1.279
Sb2068_A		0.4001	ug/L	0.3328	83.17	1.356
Se1960_A		1.173	ug/L	0.3897	33.22	4.546
Si2516_R		-2.355	ug/L	6.601	280.3	32.13
Sn1899_A		1.012	ug/L	0.03829	3.785	2.095
Sr4215_R		-0.06014	ug/L	0.01188	19.75	-43.34
Ti3349_A		0.7630	ug/L	0.04423	5.796	23.98
Tl1908_A		-0.9420	ug/L	0.005567	0.5909	-2.445
V_2924_A		0.3077	ug/L	0.2395	77.82	-3.186
Zn2062_A		-0.01526	ug/L	0.01414	92.66	1.094
Y_3600_R		18,970	Cts/S	79.349	0.41828	18,970
Y_2243_A		12,919	Cts/S	61.033	0.47242	12,919
Y_3600_A		191,520	Cts/S	828.01	0.43233	191,520

SO8237-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:02:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2895	ug/L	0.4103	141.7	-8.767
Al3961_R		-6.074	ug/L	1.109	18.25	8.006
As1891_A		1.238	ug/L	0.7632	61.65	-4.158
B_2089_A		7.765	ug/L	0.1748	2.251	21.37
Ba4554_R		3.369	ug/L	0.06494	1.928	210.4
Be3130_R		0.004355	ug/L	0.08396	1,928	-5.291
Ca3158_R		24,550	ug/L	80.04	0.3260	34,040
Cd2265_A		-0.03846	ug/L	0.007493	19.48	-1.335
Co2286_A		0.2578	ug/L	0.07449	28.90	5.894
Cr2677_A		0.3973	ug/L	0.3700	93.14	5.656
Cu3273_A		6.716	ug/L	0.004107	0.06116	43.39
Fe2599_R		6.101	ug/L	2.261	37.06	22.09
K_7664_R		1,786	ug/L	10.67	0.5974	988.1
Li6707_R		9.020	ug/L	0.9945	11.03	108.9
Mg2025_A		4,517	ug/L	10.80	0.2390	2,225
Mn2576_R		0.2054	ug/L	0.5011	244.0	0.08558
Mo2020_A		9.848	ug/L	0.1763	1.790	44.24
Na5895_R		7,253	ug/L	18.30	0.2523	13,620
Ni2316_A		0.5190	ug/L	0.09229	17.78	0.4941

SO8237-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:02:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.07241	ug/L	0.1034	142.8	-1.302
Sb2068_A		-1.384	ug/L	1.834	132.6	0.08136
Se1960_A		1.367	ug/L	0.2026	14.82	4.687
Si2516_R		6,613	ug/L	39.16	0.5922	3,122
Sn1899_A		-0.007151	ug/L	0.4024	5,627	1.395
Sr4215_R		216.9	ug/L	0.006373	0.002937	15,850
Ti3349_A		-0.5192	ug/L	0.1067	20.55	-17.56
Tl1908_A		-0.4863	ug/L	0.1483	30.49	-2.095
V_2924_A		0.7936	ug/L	0.03679	4.636	2.888
Zn2062_A		1.577	ug/L	0.02599	1.648	8.717
Y_3600_R		19,324	Cts/S	35.114	0.18171	19,324
Y_2243_A		13,096	Cts/S	45.129	0.34459	13,096
Y_3600_A		193,580	Cts/S	361.18	0.18658	193,580

SO8070-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:06:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.3478	ug/L	0.1394	40.07	-22.46
Al3961_R		1,696	ug/L	2.492	0.1470	1,631
As1891_A		0.2217	ug/L	0.4563	205.9	-4.166
B_2089_A	W	6,376	ug/L	19.28	0.3024	10,480
Ba4554_R		49.16	ug/L	1.093	2.223	2,981
Be3130_R		0.02049	ug/L	0.05998	292.7	-3.584
Ca3158_R	W	37,840	ug/L	135.6	0.3583	49,550
Cd2265_A		-0.03235	ug/L	0.04027	124.5	-0.08254
Co2286_A		0.06326	ug/L	0.2211	349.5	4.255
Cr2677_A		31.75	ug/L	0.3375	1.063	420.5
Cu3273_A		12.40	ug/L	0.02854	0.2301	100.7
Fe2599_R		439.5	ug/L	5.882	1.338	910.2
K_7664_R		7,056	ug/L	38.13	0.5404	3,822
Li6707_R		17.32	ug/L	0.4110	2.373	179.9
Mg2025_A		841.9	ug/L	1.834	0.2178	354.9
Mn2576_R		4.032	ug/L	0.1459	3.618	38.93
Mo2020_A		28.32	ug/L	0.2251	0.7946	110.2
Na5895_R	F	1,599,000	ug/L	1,079	0.06747	2,830,000
Ni2316_A		6.520	ug/L	0.2008	3.080	12.43
Pb2203_A		0.6659	ug/L	0.5974	89.71	-0.6080
Sb2068_A		-0.5928	ug/L	0.4502	75.94	0.6876
Se1960_A		1.033	ug/L	0.2733	26.47	4.008
Si2516_R		135.5	ug/L	8.228	6.070	91.76
Sn1899_A		-0.2302	ug/L	0.04150	18.03	1.081
Sr4215_R		595.1	ug/L	4.623	0.7769	41,120
Ti3349_A		-0.2979	ug/L	0.4103	137.7	-8.270
Tl1908_A		0.02201	ug/L	0.02635	119.7	-1.462
V_2924_A		0.3201	ug/L	0.2171	67.84	-5.370
Zn2062_A		2.161	ug/L	0.1493	6.910	9.927
Y_3600_R		18,244	Cts/S	183.15	1.0039	18,244
Y_2243_A		11,456	Cts/S	3.0464	0.026593	11,456
Y_3600_A		163,470	Cts/S	1,020.3	0.62413	163,470

SO8150-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:11:01PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8150-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:11:01PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3310	ug/L	0.2646	79.94	-12.51
Al3961_R		0.5529	ug/L	6.759	1,222	0.6348
As1891_A		0.5822	ug/L	0.2522	43.32	-4.513
B_2089_A		35.36	ug/L	2.106	5.956	71.36
Ba4554_R		14.47	ug/L	0.003991	0.02758	915.9
Be3130_R		0.00005200	ug/L	0.04206	80,800	-5.700
Ca3158_R		8,517	ug/L	18.24	0.2142	11,690
Cd2265_A		0.1080	ug/L	0.02517	23.31	5.160
Co2286_A		0.3675	ug/L	0.02163	5.886	6.385
Cr2677_A		0.2005	ug/L	0.1252	62.46	3.315
Cu3273_A		44.58	ug/L	0.2716	0.6092	537.6
Fe2599_R		1,477	ug/L	5.525	0.3741	3,188
K_7664_R		3,821	ug/L	26.01	0.6808	2,149
Li6707_R		2.104	ug/L	0.3623	17.22	40.48
Mg2025_A		4,570	ug/L	43.98	0.9624	2,207
Mn2576_R		473.5	ug/L	1.785	0.3771	5,239
Mo2020_A		0.3747	ug/L	0.04592	12.25	2.242
Na5895_R	W	58,130	ug/L	38.96	0.06703	107,900
Ni2316_A		6.148	ug/L	0.1424	2.316	12.54
Pb2203_A		3.555	ug/L	0.02076	0.5839	3.815
Sb2068_A		-0.006474	ug/L	0.7373	11,390	1.101
Se1960_A		0.1070	ug/L	0.9063	847.3	4.228
Si2516_R		8,435	ug/L	58.65	0.6953	3,936
Sn1899_A		0.5498	ug/L	0.2127	38.68	1.758
Sr4215_R		90.16	ug/L	0.2425	0.2689	6,503
Ti3349_A		-0.2679	ug/L	0.09727	36.30	-9.295
Tl1908_A		0.07532	ug/L	0.7241	961.4	-1.998
V_2924_A		-0.02621	ug/L	0.01895	72.31	-9.627
Zn2062_A		157.8	ug/L	0.4375	0.2772	740.3
Y_3600_R		19,143	Cts/S	163.25	0.85281	19,143
Y_2243_A		12,837	Cts/S	111.25	0.86663	12,837
Y_3600_A		188,940	Cts/S	2,045.4	1.0826	188,940

SO8150-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:15:20PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1582	ug/L	0.02743	17.33	-20.04
Al3961_R		16.90	ug/L	1.655	9.790	9.818
As1891_A		1.368	ug/L	0.1421	10.38	-4.047
B_2089_A		29.46	ug/L	0.2279	0.7736	60.89
Ba4554_R		0.4432	ug/L	0.2548	57.50	22.22
Be3130_R		0.05557	ug/L	0.01283	23.08	-0.5410
Ca3158_R		104.8	ug/L	6.238	5.951	125.5
Cd2265_A		0.02914	ug/L	0.02201	75.53	0.4198
Co2286_A		0.2446	ug/L	0.09238	37.76	5.757
Cr2677_A		0.08763	ug/L	0.4320	493.0	0.7434
Cu3273_A		81.51	ug/L	1.761	2.160	999.5
Fe2599_R		192.2	ug/L	8.412	4.378	423.4
K_7664_R		144.1	ug/L	2.093	1.452	34.46
Li6707_R		-0.4231	ug/L	1.952	461.4	16.15
Mg2025_A		107.6	ug/L	0.6330	0.5884	41.29
Mn2576_R		11.80	ug/L	0.2937	2.489	127.2
Mo2020_A		0.04880	ug/L	0.06006	123.1	0.8769
Na5895_R	W	83,470	ug/L	3,297	3.950	155,300
Ni2316_A		0.4116	ug/L	0.1082	26.28	0.07338

SO8150-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:15:20PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.116	ug/L	0.04175	3.740	0.2807
Sb2068_A		-0.2234	ug/L	0.1483	66.38	0.9196
Se1960_A		-0.9774	ug/L	0.2595	26.55	3.691
Si2516_R		8,221	ug/L	331.6	4.034	3,846
Sn1899_A		0.2472	ug/L	0.6508	263.3	1.555
Sr4215_R		0.4076	ug/L	0.1386	34.01	-9.944
Ti3349_A		0.1002	ug/L	0.2057	205.3	2.475
Tl1908_A		0.1559	ug/L	0.5644	362.0	-1.543
V_2924_A		0.1790	ug/L	0.1247	69.65	-4.837
Zn2062_A		20.63	ug/L	0.1865	0.9043	98.45
Y_3600_R		19,195	Cts/S	474.78	2.4735	19,195
Y_2243_A		12,924	Cts/S	45.421	0.35144	12,924
Y_3600_A		185,480	Cts/S	3,648.6	1.9671	185,480

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:19:42PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		504.9	ug/L	1.449	0.2870	12,550
Al3961_R		12,730	ug/L	328.6	2.581	12,450
As1891_A		517.0	ug/L	1.978	0.3826	265.3
B_2089_A		509.3	ug/L	1.230	0.2414	962.6
Ba4554_R		508.1	ug/L	12.52	2.465	31,830
Be3130_R		501.2	ug/L	11.61	2.317	45,890
Ca3158_R		12,810	ug/L	298.6	2.331	17,290
Cd2265_A		508.3	ug/L	1.480	0.2911	9,381
Co2286_A		522.6	ug/L	0.4016	0.07685	2,705
Cr2677_A		514.6	ug/L	0.4800	0.09327	7,878
Cu3273_A		486.8	ug/L	4.601	0.9452	6,302
Fe2599_R		12,860	ug/L	330.8	2.572	27,220
K_7664_R		12,700	ug/L	277.5	2.185	7,131
Li6707_R		503.2	ug/L	11.34	2.254	4,840
Mg2025_A	W	13,260	ug/L	7.580	0.05715	6,460
Mn2576_R		515.5	ug/L	11.01	2.136	5,606
Mo2020_A		513.9	ug/L	1.766	0.3438	2,226
Na5895_R		12,640	ug/L	270.2	2.138	23,090
Ni2316_A		511.1	ug/L	0.5286	0.1034	1,130
Pb2203_A		518.2	ug/L	3.077	0.5938	749.6
Sb2068_A		522.3	ug/L	1.763	0.3375	370.0
Se1960_A		513.7	ug/L	0.8521	0.1659	209.3
Si2516_R		12,780	ug/L	314.8	2.464	5,845
Sn1899_A		507.2	ug/L	2.797	0.5516	356.5
Sr4215_R		504.3	ug/L	11.77	2.335	35,930
Ti3349_A		504.3	ug/L	5.105	1.012	16,120
Tl1908_A	W	535.6	ug/L	2.691	0.5024	437.2
V_2924_A		520.7	ug/L	1.616	0.3103	7,131
Zn2062_A		512.1	ug/L	1.612	0.3147	2,394
Y_3600_R		18,817	Cts/S	278.19	1.4784	18,817
Y_2243_A		12,821	Cts/S	38.113	0.29726	12,821
Y_3600_A		188,690	Cts/S	75.517	0.040022	188,690

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:23:50PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:23:50PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1586	ug/L	0.1284	80.93	-12.16
Al3961_R		10.51	ug/L	4.967	47.25	3.393
As1891_A		-0.3393	ug/L	0.2122	62.53	-5.001
B_2089_A		5.856	ug/L	0.1323	2.259	17.41
Ba4554_R		0.3658	ug/L	0.04395	12.02	16.88
Be3130_R		0.08640	ug/L	0.04206	48.67	2.292
Ca3158_R		3.716	ug/L	1.056	28.41	-13.59
Cd2265_A		0.1456	ug/L	0.04210	28.92	2.125
Co2286_A		0.2668	ug/L	0.1438	53.89	5.951
Cr2677_A		0.4785	ug/L	0.3297	68.89	6.928
Cu3273_A		0.3359	ug/L	0.2404	71.57	-41.94
Fe2599_R		6.361	ug/L	2.216	34.84	22.28
K_7664_R		47.42	ug/L	34.21	72.15	-20.99
Li6707_R		2.882	ug/L	0.07264	2.520	47.69
Mg2025_A		3.807	ug/L	1.633	42.89	-9.560
Mn2576_R		0.3474	ug/L	0.4451	128.1	0.1540
Mo2020_A		0.6473	ug/L	0.1173	18.12	3.536
Na5895_R		69.77	ug/L	2.850	4.085	158.9
Ni2316_A		0.2191	ug/L	0.1839	83.93	-0.3238
Pb2203_A		-0.05435	ug/L	0.4241	780.3	-1.483
Sb2068_A		-0.1535	ug/L	0.8497	553.4	0.9784
Se1960_A		2.050	ug/L	0.3810	18.58	4.964
Si2516_R		2.342	ug/L	2.015	86.02	34.32
Sn1899_A		0.2254	ug/L	0.1066	47.29	1.561
Sr4215_R		-0.09768	ug/L	0.0009310	0.9534	-46.07
Ti3349_A		0.7564	ug/L	0.02301	3.042	24.06
Tl1908_A		-0.1122	ug/L	0.6018	536.4	-1.784
V_2924_A		0.4637	ug/L	0.2433	52.48	-1.061
Zn2062_A		0.2982	ug/L	0.002437	0.8171	2.605
Y_3600_R		18,985	Cts/S	157.76	0.83098	18,985
Y_2243_A		13,092	Cts/S	2.9489	0.022524	13,092
Y_3600_A		193,750	Cts/S	1,145.3	0.59109	193,750

SO8150-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:28:13PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.03489	ug/L	0.1573	451.0	-21.40
Al3961_R		-0.2014	ug/L	8.181	4,062	-0.1887
As1891_A		1.229	ug/L	0.6216	50.59	-4.291
B_2089_A		9.383	ug/L	0.5469	5.829	24.20
Ba4554_R		13.07	ug/L	0.9351	7.155	838.2
Be3130_R		0.2619	ug/L	0.006113	2.334	18.97
Ca3158_R		8,025	ug/L	701.4	8.740	11,160
Cd2265_A		0.1076	ug/L	0.02440	22.67	6.040
Co2286_A		0.06176	ug/L	0.02392	38.73	4.920
Cr2677_A		0.2026	ug/L	0.3204	158.1	3.289
Cu3273_A		5.561	ug/L	0.01203	0.2163	29.57
Fe2599_R		1,762	ug/L	159.1	9.028	3,853
K_7664_R		2,508	ug/L	214.5	8.551	1,413
Li6707_R		8.432	ug/L	0.9661	11.46	103.5
Mg2025_A		4,756	ug/L	19.07	0.4010	2,351
Mn2576_R		287.4	ug/L	25.95	9.030	3,222
Mo2020_A		2.964	ug/L	0.1343	4.531	13.80
Na5895_R		13,530	ug/L	1,189	8.785	25,490
Ni2316_A		0.1477	ug/L	0.1873	126.8	-0.6931

SO8150-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:28:13PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		6.277	ug/L	0.1738	2.769	7.939
Sb2068_A		0.1021	ug/L	0.7354	720.5	1.210
Se1960_A		-0.4300	ug/L	0.8020	186.5	4.072
Si2516_R		14,820	ug/L	1,344	9.065	6,984
Sn1899_A		0.4875	ug/L	0.1129	23.16	1.754
Sr4215_R		56.86	ug/L	4.699	8.263	4,142
Ti3349_A		-0.1636	ug/L	0.08221	50.26	-6.099
Tl1908_A		0.08765	ug/L	0.2273	259.3	-1.874
V_2924_A		0.2682	ug/L	0.5009	186.8	-4.864
Zn2062_A		48.64	ug/L	0.2675	0.5499	234.3
Y_3600_R		19,449	Cts/S	1,135.5	5.8386	19,449
Y_2243_A		13,136	Cts/S	26.684	0.20313	13,136
Y_3600_A		194,110	Cts/S	2,888.7	1.4882	194,110

SO8150-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:32:32PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3100	ug/L	0.01154	3.721	-8.157
Al3961_R		3.497	ug/L	13.30	380.2	10.66
As1891_A		1.975	ug/L	0.6800	34.43	-3.738
B_2089_A		87.38	ug/L	0.4755	0.5442	169.3
Ba4554_R		7.023	ug/L	0.04257	0.6061	441.0
Be3130_R		0.04293	ug/L	0.01725	40.17	-1.681
Ca3158_R		16,940	ug/L	8.825	0.05210	23,240
Cd2265_A		0.1439	ug/L	0.02189	15.20	2.081
Co2286_A		0.4909	ug/L	0.1021	20.79	7.077
Cr2677_A		0.4138	ug/L	0.03489	8.433	7.889
Cu3273_A		0.4437	ug/L	0.3042	68.55	-39.90
Fe2599_R		7.223	ug/L	1.564	21.66	24.28
K_7664_R		5,989	ug/L	23.98	0.4004	3,392
Li6707_R		-0.2532	ug/L	1.018	402.0	17.49
Mg2025_A		5,716	ug/L	47.65	0.8337	2,801
Mn2576_R	W	1,597	ug/L	0.9384	0.05876	17,660
Mo2020_A		0.7934	ug/L	0.09705	12.23	4.011
Na5895_R	W	25,860	ug/L	30.64	0.1185	47,990
Ni2316_A		1.245	ug/L	0.05560	4.468	1.970
Pb2203_A		0.5056	ug/L	0.02593	5.127	-0.6464
Sb2068_A		-0.9377	ug/L	0.4290	45.75	0.4061
Se1960_A		-0.5576	ug/L	0.07519	13.48	4.222
Si2516_R		5,476	ug/L	27.98	0.5110	2,564
Sn1899_A		0.1017	ug/L	0.2057	202.2	1.463
Sr4215_R		202.9	ug/L	0.03806	0.01875	14,670
Ti3349_A		-0.2391	ug/L	0.05533	23.14	-8.456
Tl1908_A		0.8430	ug/L	0.5064	60.07	-2.354
V_2924_A		0.6703	ug/L	0.2566	38.29	-5.845
Zn2062_A		0.2195	ug/L	0.04515	20.57	2.215
Y_3600_R		19,122	Cts/S	66.111	0.34573	19,122
Y_2243_A		13,011	Cts/S	90.088	0.69238	13,011
Y_3600_A		191,060	Cts/S	3,518.3	1.8415	191,060

SO7914-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:36:51PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO7914-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:36:51PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1285	ug/L	0.2941	228.9	-27.09
Al3961_R		100.3	ug/L	6.194	6.177	97.74
As1891_A		-1.826	ug/L	0.1744	9.548	-5.826
B_2089_A	F	32,560	ug/L	66.68	0.2048	58,770
Ba4554_R		95.01	ug/L	2.138	2.250	5,879
Be3130_R		-0.06569	ug/L	0.06671	101.6	-12.22
Ca3158_R		5,110	ug/L	83.54	1.635	6,807
Cd2265_A		-0.02289	ug/L	0.03587	156.7	9.594
Co2286_A		9.305	ug/L	0.01862	0.2001	51.74
Cr2677_A		198.5	ug/L	0.4603	0.2319	3,000
Cu3273_A		246.4	ug/L	1.580	0.6412	3,129
Fe2599_R		4,320	ug/L	88.81	2.056	9,045
K_7664_R	W	29,770	ug/L	425.7	1.430	16,590
Li6707_R		29.51	ug/L	0.4487	1.520	298.9
Mg2025_A		206.6	ug/L	1.023	0.4951	89.29
Mn2576_R		54.31	ug/L	0.8162	1.503	579.7
Mo2020_A		101.5	ug/L	0.09858	0.09711	432.3
Na5895_R		10,190	ug/L	165.0	1.619	18,410
Ni2316_A		155.7	ug/L	0.04716	0.03028	336.6
Pb2203_A		10.82	ug/L	0.04601	0.4251	14.03
Sb2068_A		4.441	ug/L	0.6847	15.42	4.226
Se1960_A		0.8200	ug/L	1.177	143.6	4.404
Si2516_R		1,246	ug/L	21.07	1.692	592.7
Sn1899_A		91.28	ug/L	0.03283	0.03597	64.11
Sr4215_R		6.847	ug/L	0.3190	4.658	444.5
Ti3349_A		17.04	ug/L	0.1103	0.6473	540.0
Tl1908_A		-2.389	ug/L	0.2138	8.948	-3.556
V_2924_A		6.420	ug/L	0.2235	3.481	66.49
Zn2062_A		862.9	ug/L	0.9177	0.1064	3,964
Y_3600_R		18,604	Cts/S	183.55	0.98661	18,604
Y_2243_A		12,589	Cts/S	32.842	0.26087	12,589
Y_3600_A		186,330	Cts/S	155.57	0.083490	186,330

SO7926-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:41:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.02660	ug/L	0.06735	253.2	-17.59
Al3961_R		931.3	ug/L	34.97	3.755	890.8
As1891_A		-1.599	ug/L	0.1870	11.70	-5.574
B_2089_A		53.20	ug/L	7.632	14.35	103.7
Ba4554_R		0.4377	ug/L	0.08124	18.56	20.96
Be3130_R		0.06761	ug/L	0.04969	73.50	0.5272
Ca3158_R		97.53	ug/L	2.237	2.293	111.8
Cd2265_A		0.06317	ug/L	0.002363	3.740	1.365
Co2286_A		0.01103	ug/L	0.05403	489.6	4.493
Cr2677_A		14.89	ug/L	0.3117	2.094	227.9
Cu3273_A	W	8,607	ug/L	16.66	0.1935	112,400
Fe2599_R		326.8	ug/L	11.09	3.393	690.9
K_7664_R		718.3	ug/L	32.90	4.581	353.6
Li6707_R		1.487	ug/L	0.08125	5.464	33.45
Mg2025_A		10.16	ug/L	0.01012	0.09962	-6.247
Mn2576_R		7.752	ug/L	0.1965	2.535	79.44
Mo2020_A		1.249	ug/L	0.1052	8.416	6.049
Na5895_R		1,476	ug/L	24.56	1.664	2,687
Ni2316_A		9.031	ug/L	0.03775	0.4181	18.96

SO7926-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:41:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.836	ug/L	0.9593	33.82	5.683
Sb2068_A		0.9717	ug/L	0.1849	19.03	1.488
Se1960_A		1.024	ug/L	1.174	114.7	4.455
Si2516_R		128.9	ug/L	5.032	3.903	90.35
Sn1899_A		43.91	ug/L	0.9327	2.124	31.99
Sr4215_R		-0.1148	ug/L	0.2278	198.4	-46.22
Ti3349_A		0.3609	ug/L	0.04525	12.54	10.91
Tl1908_A		-2.341	ug/L	0.2890	12.35	-2.840
V_2924_A		0.2681	ug/L	0.02195	8.186	-4.258
Zn2062_A		30.98	ug/L	0.1352	0.4364	145.4
Y_3600_R		18,569	Cts/S	102.20	0.55041	18,569
Y_2243_A		12,771	Cts/S	49.672	0.38893	12,771
Y_3600_A		189,170	Cts/S	278.87	0.14742	189,170

SO7927-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:45:27PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.108	ug/L	0.2286	20.64	-18.23
Al3961_R		1,431	ug/L	42.17	2.946	1,416
As1891_A		-4.527	ug/L	0.3153	6.965	-7.460
B_2089_A	W	14,420	ug/L	32.42	0.2248	25,870
Ba4554_R		79.99	ug/L	2.349	2.937	5,070
Be3130_R		0.04112	ug/L	0.03960	96.31	-7.945
Ca3158_R		5,868	ug/L	220.6	3.759	8,009
Cd2265_A		2.011	ug/L	0.01836	0.9128	56.53
Co2286_A		5.188	ug/L	0.0009710	0.01872	31.55
Cr2677_A		91.63	ug/L	0.9841	1.074	1,390
Cu3273_A		674.6	ug/L	5.594	0.8293	8,667
Fe2599_R		8,383	ug/L	291.4	3.476	17,970
K_7664_R		3,918	ug/L	173.1	4.419	2,194
Li6707_R		15.10	ug/L	0.8525	5.646	166.6
Mg2025_A		748.7	ug/L	3.961	0.5290	347.8
Mn2576_R		252.1	ug/L	8.510	3.375	2,773
Mo2020_A		69.29	ug/L	0.04644	0.06703	293.4
Na5895_R	W	43,220	ug/L	1,465	3.390	79,900
Ni2316_A		62.97	ug/L	0.3024	0.4802	134.3
Pb2203_A		98.80	ug/L	0.3463	0.3505	138.7
Sb2068_A		4.500	ug/L	1.258	27.96	3.889
Se1960_A		4.271	ug/L	0.4783	11.20	5.867
Si2516_R		2,429	ug/L	89.18	3.672	1,152
Sn1899_A		123.7	ug/L	0.1785	0.1442	85.89
Sr4215_R		21.25	ug/L	0.6861	3.229	1,496
Ti3349_A		102.7	ug/L	1.216	1.184	3,250
Tl1908_A		-4.513	ug/L	1.174	26.00	-5.437
V_2924_A		6.517	ug/L	0.03593	0.5513	75.36
Zn2062_A	W	5,805	ug/L	1.039	0.01790	26,500
Y_3600_R		19,065	Cts/S	637.16	3.3420	19,065
Y_2243_A		12,510	Cts/S	44.318	0.35427	12,510
Y_3600_A		186,900	Cts/S	289.74	0.15503	186,900

SO8060-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:49:42PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8060-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:49:42PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		24.65	ug/L	0.3167	1.285	399.0
Al3961_R	W	45,100	ug/L	472.8	1.048	45,970
As1891_A		30.49	ug/L	1.199	3.932	7.096
B_2089_A		92.11	ug/L	3.361	3.648	177.6
Ba4554_R	W	1,695	ug/L	16.76	0.9884	110,600
Be3130_R		1.458	ug/L	0.03448	2.365	30.75
Ca3158_R	W	102,100	ug/L	675.7	0.6619	143,600
Cd2265_A		11.65	ug/L	0.06189	0.5312	345.2
Co2286_A		15.77	ug/L	0.1392	0.8832	101.7
Cr2677_A		140.9	ug/L	1.350	0.9577	2,189
Cu3273_A	W	3,780	ug/L	35.15	0.9299	49,770
Fe2599_R	W	50,840	ug/L	495.9	0.9754	112,100
K_7664_R		5,364	ug/L	42.29	0.7883	3,108
Li6707_R		43.20	ug/L	1.188	2.749	451.5
Mg2025_A		9,777	ug/L	17.41	0.1781	4,717
Mn2576_R	W	1,660	ug/L	17.03	1.026	18,790
Mo2020_A		68.59	ug/L	0.03196	0.04659	296.4
Na5895_R		464.0	ug/L	11.53	2.485	913.3
Ni2316_A		101.4	ug/L	0.3391	0.3343	215.7
Pb2203_A		290.4	ug/L	0.05125	0.01765	413.8
Sb2068_A		6.645	ug/L	0.1486	2.237	5.799
Se1960_A		31.46	ug/L	1.419	4.510	18.58
Si2516_R		1,930	ug/L	20.05	1.039	952.9
Sn1899_A		262.5	ug/L	0.1994	0.07596	184.4
Sr4215_R		448.7	ug/L	4.872	1.086	33,290
Ti3349_A	W	1,650	ug/L	13.74	0.8329	53,300
Tl1908_A		-2.231	ug/L	0.9393	42.10	-5.737
V_2924_A		80.73	ug/L	0.5508	0.6822	1,132
Zn2062_A	W	6,565	ug/L	35.48	0.5404	30,590
Y_3600_R		19,597	Cts/S	31.165	0.15903	19,597
Y_2243_A		12,771	Cts/S	2.0553	0.016094	12,771
Y_3600_A		190,760	Cts/S	844.64	0.44277	190,760

SO8069-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:53:55PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		4.655	ug/L	0.5051	10.85	-358.5
Al3961_R	W	46,000	ug/L	1,536	3.339	46,900
As1891_A		34.50	ug/L	0.6187	1.793	5.213
B_2089_A		30.73	ug/L	0.9027	2.938	64.16
Ba4554_R		116.0	ug/L	3.990	3.440	7,581
Be3130_R		2.684	ug/L	0.1220	4.544	62.14
Ca3158_R		6,348	ug/L	207.4	3.268	8,932
Cd2265_A		-0.02042	ug/L	0.6265	3,068	304.7
Co2286_A		33.40	ug/L	0.3006	0.8999	211.0
Cr2677_A		59.37	ug/L	1.314	2.213	953.5
Cu3273_A		77.85	ug/L	2.029	2.606	1,059
Fe2599_R	W	114,900	ug/L	4,131	3.594	253,900
K_7664_R		4,829	ug/L	134.0	2.775	2,800
Li6707_R		71.25	ug/L	3.579	5.023	733.0
Mg2025_A		14,310	ug/L	50.09	0.3499	7,073
Mn2576_R	W	1,026	ug/L	34.36	3.350	11,620
Mo2020_A		4.545	ug/L	0.1597	3.514	20.61
Na5895_R		862.9	ug/L	38.33	4.441	1,675
Ni2316_A		59.61	ug/L	0.004251	0.007132	117.2

SO8069-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:53:55PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		83.59	ug/L	0.8258	0.9879	115.5
Sb2068_A		0.6276	ug/L	0.2139	34.08	4.487
Se1960_A		-2.582	ug/L	2.987	115.7	6.594
Si2516_R		2,213	ug/L	52.34	2.365	1,091
Sn1899_A		37.24	ug/L	0.6212	1.668	28.00
Sr4215_R		53.44	ug/L	2.133	3.990	3,938
Ti3349_A	W	2,983	ug/L	78.14	2.620	98,100
Tl1908_A		-1.702	ug/L	0.1931	11.35	-6.319
V_2924_A		98.86	ug/L	1.581	1.599	1,453
Zn2062_A		212.3	ug/L	1.712	0.8064	1,014
Y_3600_R		19,645	Cts/S	208.22	1.0599	19,645
Y_2243_A		13,077	Cts/S	40.273	0.30798	13,077
Y_3600_A		194,300	Cts/S	2,396.1	1.2332	194,300

SO8069-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 12:58:09PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		4.423	ug/L	0.5480	12.39	-303.6
Al3961_R	W	46,090	ug/L	732.6	1.590	47,190
As1891_A		17.46	ug/L	0.9745	5.582	-2.653
B_2089_A		25.96	ug/L	0.4880	1.880	55.20
Ba4554_R		110.7	ug/L	1.519	1.372	7,263
Be3130_R		2.528	ug/L	0.09529	3.769	20.12
Ca3158_R		8,538	ug/L	127.4	1.493	12,070
Cd2265_A		-0.1180	ug/L	0.1492	126.4	253.0
Co2286_A		33.05	ug/L	0.3216	0.9732	212.1
Cr2677_A		61.22	ug/L	1.787	2.918	967.1
Cu3273_A		64.81	ug/L	1.604	2.475	852.2
Fe2599_R	W	95,900	ug/L	1,408	1.468	212,700
K_7664_R		7,574	ug/L	60.20	0.7948	4,438
Li6707_R		105.5	ug/L	0.3380	0.3204	1,080
Mg2025_A		14,680	ug/L	28.45	0.1939	7,233
Mn2576_R		994.3	ug/L	16.38	1.647	11,310
Mo2020_A		7.291	ug/L	0.04997	0.6853	32.66
Na5895_R		363.1	ug/L	0.08379	0.02307	726.3
Ni2316_A		61.17	ug/L	0.08095	0.1323	123.0
Pb2203_A		74.35	ug/L	1.101	1.481	101.6
Sb2068_A		-0.1851	ug/L	0.4480	242.0	3.394
Se1960_A		-2.994	ug/L	0.4309	14.39	5.950
Si2516_R		1,897	ug/L	31.07	1.638	948.0
Sn1899_A		39.43	ug/L	0.7575	1.921	29.48
Sr4215_R		62.97	ug/L	1.004	1.594	4,667
Ti3349_A	W	3,397	ug/L	74.17	2.183	110,300
Tl1908_A		-1.635	ug/L	0.6215	38.00	-6.536
V_2924_A		96.86	ug/L	2.162	2.232	1,405
Zn2062_A		238.2	ug/L	1.262	0.5297	1,135
Y_3600_R		19,724	Cts/S	119.02	0.60340	19,724
Y_2243_A		13,044	Cts/S	23.729	0.18191	13,044
Y_3600_A		191,790	Cts/S	3,259.1	1.6993	191,790

SO8069-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:02:25PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8069-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:02:25PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		4.705	ug/L	0.01944	0.4132	-317.6
Al3961_R	W	35,120	ug/L	911.9	2.597	34,960
As1891_A		27.81	ug/L	1.432	5.147	2.490
B_2089_A		17.78	ug/L	0.3248	1.826	39.88
Ba4554_R		62.35	ug/L	1.508	2.419	3,976
Be3130_R		1.941	ug/L	0.01640	0.8448	-16.15
Ca3158_R		6,235	ug/L	155.2	2.489	8,568
Cd2265_A		-0.8130	ug/L	0.4814	59.21	265.1
Co2286_A		26.56	ug/L	0.07107	0.2676	176.1
Cr2677_A		49.85	ug/L	0.03674	0.07369	781.4
Cu3273_A		50.83	ug/L	0.07495	0.1474	672.3
Fe2599_R	W	105,300	ug/L	2,598	2.469	227,100
K_7664_R		3,292	ug/L	62.74	1.905	1,849
Li6707_R		57.21	ug/L	0.0009940	0.001737	578.8
Mg2025_A		12,050	ug/L	56.55	0.4694	5,961
Mn2576_R		801.1	ug/L	19.74	2.465	8,856
Mo2020_A		2.580	ug/L	0.04677	1.813	11.98
Na5895_R		478.9	ug/L	12.75	2.662	921.6
Ni2316_A		46.53	ug/L	0.4826	1.037	89.29
Pb2203_A		52.42	ug/L	0.009765	0.01863	71.05
Sb2068_A		-0.5247	ug/L	0.07468	14.23	3.326
Se1960_A		-1.805	ug/L	0.6098	33.78	6.516
Si2516_R		2,508	ug/L	42.99	1.714	1,203
Sn1899_A		40.89	ug/L	1.111	2.717	30.66
Sr4215_R		49.42	ug/L	0.9843	1.992	3,554
Ti3349_A	W	3,088	ug/L	9.015	0.2920	98,960
Tl1908_A		-2.982	ug/L	0.8200	27.50	-7.342
V_2924_A		86.28	ug/L	0.4121	0.4776	1,242
Zn2062_A		176.1	ug/L	1.885	1.070	843.0
Y_3600_R		19,183	Cts/S	114.64	0.59760	19,183
Y_2243_A		13,100	Cts/S	200.31	1.5291	13,100
Y_3600_A		189,300	Cts/S	627.40	0.33143	189,300

SO8103-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:06:41PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		6.066	ug/L	0.2171	3.579	29.21
Al3961_R		7,979	ug/L	56.09	0.7029	8,014
As1891_A		18.44	ug/L	1.316	7.136	2.699
B_2089_A		54.39	ug/L	0.7660	1.408	97.65
Ba4554_R		225.1	ug/L	1.645	0.7305	13,830
Be3130_R		0.09953	ug/L	0.06592	66.23	-15.72
Ca3158_R	W	466,000	ug/L	8,227	1.765	617,300
Cd2265_A		3.665	ug/L	0.07232	1.973	128.7
Co2286_A		4.751	ug/L	0.04533	0.9542	30.22
Cr2677_A		44.01	ug/L	0.6665	1.514	630.9
Cu3273_A		698.9	ug/L	3.092	0.4424	8,457
Fe2599_R	W	28,710	ug/L	176.9	0.6164	59,570
K_7664_R		2,152	ug/L	0.2553	0.01186	1,146
Li6707_R		13.28	ug/L	1.563	11.77	144.1
Mg2025_A		7,030	ug/L	7.672	0.1091	3,101
Mn2576_R		254.3	ug/L	2.038	0.8014	2,704
Mo2020_A		21.22	ug/L	0.06970	0.3284	84.38
Na5895_R		1,269	ug/L	21.29	1.677	2,301
Ni2316_A		35.04	ug/L	0.3890	1.110	66.34

SO8103-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:06:41PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		101.5	ug/L	0.2709	0.2668	132.5
Sb2068_A		4.404	ug/L	0.5520	12.54	3.853
Se1960_A		13.25	ug/L	1.410	10.64	9.251
Si2516_R		1,994	ug/L	7.537	0.3780	921.1
Sn1899_A		120.1	ug/L	0.6141	0.5111	77.99
Sr4215_R		386.7	ug/L	2.821	0.7297	27,000
Ti3349_A		382.2	ug/L	1.960	0.5127	11,370
Tl1908_A		-0.3024	ug/L	0.4726	156.3	-2.127
V_2924_A		71.78	ug/L	0.7244	1.009	923.2
Zn2062_A	W	2,948	ug/L	7.065	0.2397	12,580
Y_3600_R		18,450	Cts/S	115.26	0.62475	18,450
Y_2243_A		11,694	Cts/S	5.4052	0.046221	11,694
Y_3600_A		175,720	Cts/S	458.58	0.26097	175,720

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:11:00PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		511.3	ug/L	3.783	0.7399	12,730
Al3961_R		12,920	ug/L	246.5	1.908	12,680
As1891_A		524.4	ug/L	2.324	0.4432	268.1
B_2089_A		521.3	ug/L	1.760	0.3377	981.1
Ba4554_R		513.5	ug/L	6.978	1.359	32,280
Be3130_R		503.8	ug/L	7.763	1.541	46,300
Ca3158_R		12,970	ug/L	224.0	1.727	17,560
Cd2265_A		514.9	ug/L	1.538	0.2987	9,465
Co2286_A	W	531.3	ug/L	2.375	0.4470	2,740
Cr2677_A		518.8	ug/L	3.729	0.7188	7,958
Cu3273_A		493.2	ug/L	1.396	0.2830	6,400
Fe2599_R		12,990	ug/L	185.2	1.426	27,590
K_7664_R		12,830	ug/L	218.5	1.703	7,231
Li6707_R		508.0	ug/L	5.749	1.132	4,903
Mg2025_A	W	13,450	ug/L	48.12	0.3577	6,527
Mn2576_R		523.0	ug/L	8.313	1.589	5,707
Mo2020_A		521.2	ug/L	2.318	0.4448	2,249
Na5895_R		12,610	ug/L	220.1	1.745	23,130
Ni2316_A		517.3	ug/L	1.537	0.2972	1,139
Pb2203_A		523.2	ug/L	1.035	0.1978	753.8
Sb2068_A	W	530.1	ug/L	1.807	0.3408	374.1
Se1960_A		521.5	ug/L	3.363	0.6449	211.6
Si2516_R		12,880	ug/L	210.4	1.634	5,912
Sn1899_A		511.9	ug/L	1.157	0.2261	358.4
Sr4215_R		508.8	ug/L	5.760	1.132	36,370
Ti3349_A		512.4	ug/L	1.431	0.2792	16,420
Tl1908_A	W	543.7	ug/L	1.715	0.3153	442.2
V_2924_A		526.9	ug/L	2.762	0.5241	7,232
Zn2062_A		519.2	ug/L	1.957	0.3769	2,418
Y_3600_R		18,881	Cts/S	37.029	0.19612	18,881
Y_2243_A		12,772	Cts/S	57.364	0.44915	12,772
Y_3600_A		189,080	Cts/S	477.69	0.25263	189,080

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:15:07PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:15:07PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.6391	ug/L	0.08874	13.89	0.1239
Al3961_R		10.37	ug/L	0.4469	4.311	3.160
As1891_A		0.1489	ug/L	0.4733	317.8	-4.671
B_2089_A	W	12.04	ug/L	0.3680	3.056	28.58
Ba4554_R		0.2167	ug/L	0.1066	49.17	7.311
Be3130_R		0.2060	ug/L	0.04936	23.96	13.03
Ca3158_R		14.39	ug/L	5.117	35.55	0.9553
Cd2265_A		0.1955	ug/L	0.05816	29.76	3.029
Co2286_A		0.1454	ug/L	0.1577	108.5	5.237
Cr2677_A		0.5167	ug/L	0.2831	54.79	7.462
Cu3273_A		0.8280	ug/L	0.08923	10.78	-34.92
Fe2599_R		10.79	ug/L	1.924	17.83	31.01
K_7664_R		8.663	ug/L	8.769	101.2	-42.21
Li6707_R		1.689	ug/L	0.7884	46.66	35.35
Mg2025_A		5.806	ug/L	0.1080	1.861	-8.453
Mn2576_R		0.4055	ug/L	0.1565	38.59	0.7504
Mo2020_A		0.5633	ug/L	0.2538	45.05	3.117
Na5895_R		8.518	ug/L	0.1490	1.749	45.05
Ni2316_A		0.2754	ug/L	0.1561	56.69	-0.1961
Pb2203_A		0.2921	ug/L	0.5264	180.2	-0.9537
Sb2068_A		0.6973	ug/L	0.1833	26.29	1.568
Se1960_A		2.081	ug/L	0.01413	0.6790	4.903
Si2516_R		-4.818	ug/L	14.57	302.5	30.31
Sn1899_A		0.8463	ug/L	0.07994	9.445	1.975
Sr4215_R		-0.02290	ug/L	0.09716	424.2	-39.76
Ti3349_A		1.163	ug/L	0.2119	18.22	36.95
Tl1908_A		0.3375	ug/L	0.1662	49.25	-1.389
V_2924_A		0.7215	ug/L	0.2150	29.80	2.591
Zn2062_A		0.5615	ug/L	0.07989	14.23	3.806
Y_3600_R		18,555	Cts/S	67.911	0.36599	18,555
Y_2243_A		12,900	Cts/S	9.5948	0.074378	12,900
Y_3600_A		191,350	Cts/S	1,001.6	0.52345	191,350

SO8109-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:19:30PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.4152	ug/L	0.03837	9.241	-13.02
Al3961_R		1,882	ug/L	46.48	2.469	1,847
As1891_A		0.09678	ug/L	0.5420	560.1	-4.754
B_2089_A		63.98	ug/L	0.1999	0.3124	121.6
Ba4554_R		109.4	ug/L	2.221	2.031	6,767
Be3130_R		0.1561	ug/L	0.05617	35.99	6.607
Ca3158_R	W	45,420	ug/L	828.9	1.825	60,610
Cd2265_A		0.2162	ug/L	0.009147	4.232	8.764
Co2286_A		1.112	ug/L	0.09827	8.838	10.35
Cr2677_A		4.047	ug/L	0.3897	9.630	60.40
Cu3273_A		81.87	ug/L	0.05470	0.06681	998.1
Fe2599_R		2,148	ug/L	49.59	2.309	4,499
K_7664_R	W	57,580	ug/L	1,003	1.743	32,120
Li6707_R		3.050	ug/L	0.7869	25.80	48.31
Mg2025_A		7,010	ug/L	27.15	0.3873	3,326
Mn2576_R		158.1	ug/L	3.566	2.255	1,698
Mo2020_A		1.183	ug/L	0.09408	7.955	5.659
Na5895_R		6,821	ug/L	146.9	2.154	12,330
Ni2316_A		2.712	ug/L	0.1081	3.988	4.796

SO8109-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:19:30PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.781	ug/L	0.07369	2.650	2.382
Sb2068_A		-0.3824	ug/L	0.3232	84.51	0.5302
Se1960_A		1.556	ug/L	1.801	115.8	4.681
Si2516_R		1,479	ug/L	24.72	1.672	697.1
Sn1899_A		46.74	ug/L	0.5967	1.277	33.47
Sr4215_R		169.6	ug/L	4.203	2.477	11,920
Ti3349_A		34.47	ug/L	1.119	3.245	1,074
Tl1908_A		-0.4208	ug/L	0.5357	127.3	-2.108
V_2924_A		2.919	ug/L	0.01061	0.3635	32.10
Zn2062_A		826.2	ug/L	1.082	0.1309	3,795
Y_3600_R		18,592	Cts/S	72.149	0.38806	18,592
Y_2243_A		12,585	Cts/S	3.4369	0.027310	12,585
Y_3600_A		184,170	Cts/S	331.40	0.17994	184,170

SO8121-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:23:49PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		6.343	ug/L	0.2360	3.721	-393.9
Al3961_R	W	66,930	ug/L	567.1	0.8473	67,370
As1891_A		20.10	ug/L	0.2089	1.039	-4.201
B_2089_A		16.79	ug/L	0.1521	0.9063	38.37
Ba4554_R		186.3	ug/L	1.431	0.7681	12,020
Be3130_R		3.788	ug/L	0.009600	0.2534	116.9
Ca3158_R		11,260	ug/L	96.45	0.8566	15,660
Cd2265_A		-0.2845	ug/L	0.1630	57.29	354.4
Co2286_A		53.08	ug/L	0.08653	0.1630	325.1
Cr2677_A		92.80	ug/L	0.3017	0.3251	1,467
Cu3273_A		123.8	ug/L	0.6373	0.5149	1,659
Fe2599_R	W	134,200	ug/L	762.4	0.5680	292,700
K_7664_R		8,715	ug/L	80.69	0.9259	5,028
Li6707_R		123.0	ug/L	0.1399	0.1137	1,235
Mg2025_A		23,130	ug/L	90.62	0.3918	11,530
Mn2576_R	W	1,928	ug/L	16.29	0.8453	21,580
Mo2020_A		5.067	ug/L	0.06598	1.302	23.01
Na5895_R		935.8	ug/L	19.44	2.077	1,791
Ni2316_A		98.40	ug/L	0.3764	0.3825	203.2
Pb2203_A		125.0	ug/L	1.044	0.8350	175.3
Sb2068_A		0.5446	ug/L	0.6243	114.6	5.062
Se1960_A		-3.424	ug/L	0.1948	5.688	7.216
Si2516_R		2,726	ug/L	26.78	0.9822	1,320
Sn1899_A		44.77	ug/L	0.1303	0.2910	33.65
Sr4215_R		83.96	ug/L	0.01717	0.02045	6,132
Ti3349_A	W	3,770	ug/L	2.273	0.06029	122,500
Tl1908_A		-3.272	ug/L	0.3082	9.420	-9.019
V_2924_A		130.9	ug/L	0.4921	0.3760	1,894
Zn2062_A		382.6	ug/L	0.8446	0.2208	1,841
Y_3600_R		19,392	Cts/S	39.676	0.20461	19,392
Y_2243_A		13,186	Cts/S	68.594	0.52022	13,186
Y_3600_A		191,940	Cts/S	1,105.3	0.57584	191,940

SO8121-001L

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:28:03PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8121-001L

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:28:03PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		6.553	ug/L	0.2299	3.509	-96.58
Al3961_R		70,290	ug/L	768.5	1.093	13,900
As1891_A		21.49	ug/L	3.141	14.62	-4.640
B_2089_A		49.08	ug/L	1.569	3.197	24.82
Ba4554_R		192.5	ug/L	0.5981	0.3108	2,436
Be3130_R		4.116	ug/L	0.09114	2.214	23.24
Ca3158_R		11,800	ug/L	63.83	0.5408	3,211
Cd2265_A		0.5539	ug/L	0.2046	36.94	76.61
Co2286_A		56.92	ug/L	0.3008	0.5284	72.35
Cr2677_A		97.72	ug/L	1.119	1.145	311.0
Cu3273_A		125.9	ug/L	1.890	1.501	304.1
Fe2599_R	W	141,200	ug/L	687.7	0.4870	60,520
K_7664_R		9,075	ug/L	88.54	0.9756	990.6
Li6707_R		128.5	ug/L	0.1355	0.1055	269.1
Mg2025_A		25,790	ug/L	9.883	0.03832	2,540
Mn2576_R		2,028	ug/L	21.32	1.052	4,458
Mo2020_A		4.471	ug/L	0.04832	1.081	4.573
Na5895_R		940.8	ug/L	0.9649	0.1026	378.2
Ni2316_A		102.8	ug/L	0.3272	0.3183	41.42
Pb2203_A		134.6	ug/L	2.030	1.508	36.39
Sb2068_A		1.927	ug/L	4.617	239.6	2.109
Se1960_A		-6.571	ug/L	1.333	20.28	4.520
Si2516_R		2,823	ug/L	14.18	0.5023	294.9
Sn1899_A		49.45	ug/L	0.5695	1.152	8.461
Sr4215_R		85.59	ug/L	0.4976	0.5814	1,197
Ti3349_A		3,871	ug/L	9.656	0.2494	25,370
Tl1908_A		-2.711	ug/L	0.04411	1.627	-3.077
V_2924_A		135.2	ug/L	0.9439	0.6983	388.5
Zn2062_A		403.3	ug/L	0.7035	0.1744	385.9
Y_3600_R		19,052	Cts/S	75.280	0.39512	19,052
Y_2243_A		13,074	Cts/S	15.584	0.11919	13,074
Y_3600_A		193,570	Cts/S	1,057.9	0.54653	193,570

SO8121-001A

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:32:20PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		474.3	ug/L	5.250	1.107	11,530
Al3961_R	W	76,060	ug/L	1,459	1.918	77,050
As1891_A		496.9	ug/L	4.617	0.9293	251.5
B_2089_A		477.3	ug/L	6.262	1.312	924.7
Ba4554_R		655.0	ug/L	18.29	2.793	42,530
Be3130_R		476.9	ug/L	14.56	3.053	45,040
Ca3158_R		16,250	ug/L	338.1	2.080	22,740
Cd2265_A		479.5	ug/L	7.056	1.472	9,384
Co2286_A		549.3	ug/L	8.298	1.511	2,947
Cr2677_A		577.1	ug/L	8.958	1.552	9,040
Cu3273_A		594.4	ug/L	6.658	1.120	7,922
Fe2599_R	W	134,200	ug/L	3,504	2.611	294,400
K_7664_R		18,060	ug/L	411.0	2.276	10,530
Li6707_R		592.4	ug/L	20.48	3.457	5,903
Mg2025_A	W	27,760	ug/L	387.5	1.396	13,810
Mn2576_R	W	2,341	ug/L	43.84	1.873	26,370
Mo2020_A		505.6	ug/L	7.566	1.496	2,241
Na5895_R		6,150	ug/L	105.2	1.711	11,670
Ni2316_A		577.2	ug/L	7.849	1.360	1,288

SO8121-001A

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:32:20PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		601.3	ug/L	6.928	1.152	881.2
Sb2068_A		489.3	ug/L	5.706	1.166	358.1
Se1960_A		483.5	ug/L	6.527	1.350	206.0
Si2516_R		3,104	ug/L	79.99	2.577	1,509
Sn1899_A		515.3	ug/L	8.215	1.594	370.7
Sr4215_R		551.2	ug/L	17.59	3.191	40,700
Ti3349_A	W	4,169	ug/L	50.66	1.215	136,000
Tl1908_A		485.6	ug/L	6.599	1.359	401.3
V_2924_A		626.3	ug/L	8.655	1.382	8,831
Zn2062_A		862.4	ug/L	11.24	1.303	4,128
Y_3600_R		19,511	Cts/S	557.98	2.8598	19,511
Y_2243_A		13,124	Cts/S	127.61	0.97229	13,124
Y_3600_A		192,660	Cts/S	1,489.1	0.77295	192,660

SO8121-001D

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:36:29PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		5.708	ug/L	0.8470	14.84	-467.3
Al3961_R	W	71,680	ug/L	966.0	1.348	72,730
As1891_A		26.10	ug/L	0.9408	3.604	-2.114
B_2089_A		15.71	ug/L	0.7365	4.690	36.57
Ba4554_R		177.4	ug/L	3.266	1.841	11,540
Be3130_R		5.214	ug/L	0.07525	1.443	263.8
Ca3158_R		11,140	ug/L	149.8	1.344	15,620
Cd2265_A		0.02175	ug/L	0.5797	2,665	404.1
Co2286_A		52.80	ug/L	0.1271	0.2407	324.3
Cr2677_A		97.62	ug/L	0.7945	0.8139	1,565
Cu3273_A		126.4	ug/L	0.2318	0.1834	1,732
Fe2599_R	W	150,100	ug/L	3,669	2.444	329,900
K_7664_R		8,413	ug/L	50.77	0.6035	4,890
Li6707_R		126.8	ug/L	2.345	1.850	1,282
Mg2025_A		24,470	ug/L	11.90	0.04863	12,270
Mn2576_R	W	1,616	ug/L	22.39	1.385	18,230
Mo2020_A		6.273	ug/L	0.2070	3.299	28.57
Na5895_R		946.1	ug/L	22.58	2.386	1,825
Ni2316_A		104.2	ug/L	0.3326	0.3191	215.4
Pb2203_A		141.0	ug/L	0.7168	0.5084	199.6
Sb2068_A		0.4047	ug/L	0.1187	29.32	5.468
Se1960_A		-5.193	ug/L	1.110	21.37	6.902
Si2516_R		2,620	ug/L	11.92	0.4551	1,278
Sn1899_A		39.23	ug/L	0.3002	0.7652	29.83
Sr4215_R		88.09	ug/L	1.476	1.676	6,486
Ti3349_A	W	3,618	ug/L	9.369	0.2590	119,200
Tl1908_A		-3.488	ug/L	1.941	55.64	-8.860
V_2924_A		138.5	ug/L	0.8723	0.6300	2,032
Zn2062_A		387.4	ug/L	0.6003	0.1549	1,875
Y_3600_R		19,543	Cts/S	111.88	0.57246	19,543
Y_2243_A		13,258	Cts/S	23.688	0.17867	13,258
Y_3600_A		194,560	Cts/S	1,258.2	0.64668	194,560

SO8121-001S

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:40:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8121-001S

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:40:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		54.12	ug/L	0.5865	1.084	817.1
Al3961_R	W	65,580	ug/L	37.03	0.05647	66,530
As1891_A		118.2	ug/L	1.416	1.198	48.92
B_2089_A		470.6	ug/L	0.3775	0.08020	899.7
Ba4554_R	W	2,139	ug/L	4.040	0.1889	139,200
Be3130_R		52.31	ug/L	0.05815	0.1112	4,718
Ca3158_R		14,330	ug/L	29.80	0.2080	20,080
Cd2265_A		238.2	ug/L	0.5383	0.2260	4,854
Co2286_A		554.3	ug/L	0.8145	0.1470	2,989
Cr2677_A		281.7	ug/L	0.3690	0.1310	4,416
Cu3273_A		352.8	ug/L	1.428	0.4047	4,697
Fe2599_R	W	131,100	ug/L	107.2	0.08177	288,200
K_7664_R		17,310	ug/L	14.50	0.08376	10,110
Li6707_R		600.7	ug/L	3.797	0.6322	5,997
Mg2025_A	W	25,330	ug/L	74.80	0.2953	12,650
Mn2576_R	W	2,049	ug/L	0.3476	0.01697	23,120
Mo2020_A		104.9	ug/L	0.06948	0.06627	466.9
Na5895_R		8,208	ug/L	27.52	0.3352	15,590
Ni2316_A		575.6	ug/L	0.3701	0.06430	1,284
Pb2203_A		228.1	ug/L	0.1334	0.05848	329.3
Sb2068_A		44.17	ug/L	0.2792	0.6321	33.51
Se1960_A		91.85	ug/L	0.1508	0.1642	46.16
Si2516_R		3,563	ug/L	32.45	0.9107	1,729
Sn1899_A		507.2	ug/L	2.094	0.4129	366.5
Sr4215_R		574.7	ug/L	1.175	0.2044	42,530
Ti3349_A	W	4,497	ug/L	11.98	0.2664	146,400
Tl1908_A		92.70	ug/L	0.5441	0.5870	72.76
V_2924_A		629.0	ug/L	1.395	0.2217	8,899
Zn2062_A		860.6	ug/L	3.266	0.3795	4,138
Y_3600_R		19,542	Cts/S	241.96	1.2382	19,542
Y_2243_A		13,178	Cts/S	60.119	0.45620	13,178
Y_3600_A		192,320	Cts/S	1,040.0	0.54075	192,320

SO8121-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:44:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		6.104	ug/L	0.3348	5.486	-482.1
Al3961_R	W	77,360	ug/L	321.9	0.4161	79,790
As1891_A		36.21	ug/L	0.4480	1.237	3.185
B_2089_A		9.050	ug/L	0.1192	1.318	23.96
Ba4554_R		193.2	ug/L	1.465	0.7584	12,770
Be3130_R		3.951	ug/L	0.1803	4.564	79.35
Ca3158_R		18,530	ug/L	65.69	0.3546	26,400
Cd2265_A		-0.4051	ug/L	0.3253	80.29	401.2
Co2286_A		49.45	ug/L	0.01587	0.03209	317.0
Cr2677_A		102.2	ug/L	1.413	1.382	1,635
Cu3273_A		132.3	ug/L	0.5254	0.3970	1,798
Fe2599_R	W	151,100	ug/L	2,025	1.340	337,600
K_7664_R		7,242	ug/L	19.38	0.2676	4,271
Li6707_R		122.4	ug/L	1.794	1.465	1,259
Mg2025_A	W	27,790	ug/L	71.46	0.2572	13,960
Mn2576_R	W	1,579	ug/L	7.805	0.4944	18,090
Mo2020_A		5.640	ug/L	0.2093	3.711	25.79
Na5895_R		585.6	ug/L	3.503	0.5983	1,160
Ni2316_A		97.21	ug/L	0.05143	0.05290	199.8

SO8121-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:44:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		81.61	ug/L	0.7065	0.8657	109.7
Sb2068_A		-0.1066	ug/L	0.1148	107.7	5.168
Se1960_A		-4.938	ug/L	1.044	21.14	7.108
Si2516_R		2,588	ug/L	13.49	0.5214	1,289
Sn1899_A		38.12	ug/L	0.6748	1.770	29.09
Sr4215_R		128.0	ug/L	1.116	0.8720	9,597
Ti3349_A	W	4,642	ug/L	37.97	0.8180	152,700
Tl1908_A		-4.484	ug/L	0.2311	5.153	-10.53
V_2924_A		155.6	ug/L	0.9137	0.5871	2,283
Zn2062_A		316.2	ug/L	0.5074	0.1605	1,534
Y_3600_R		19,864	Cts/S	55.933	0.28158	19,864
Y_2243_A		13,290	Cts/S	4.8744	0.036677	13,290
Y_3600_A		194,280	Cts/S	1,560.8	0.80337	194,280

SO8121-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:49:17PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		5.371	ug/L	0.3715	6.918	-396.0
Al3961_R	W	62,850	ug/L	997.9	1.588	64,790
As1891_A		32.28	ug/L	0.6790	2.103	2.910
B_2089_A		7.154	ug/L	0.2141	2.992	20.25
Ba4554_R		149.8	ug/L	2.440	1.629	9,897
Be3130_R		3.247	ug/L	0.04403	1.356	84.23
Ca3158_R		13,670	ug/L	209.7	1.534	19,470
Cd2265_A		-0.3464	ug/L	0.3341	96.44	336.3
Co2286_A		41.99	ug/L	0.05044	0.1201	264.8
Cr2677_A		81.62	ug/L	0.4798	0.5879	1,312
Cu3273_A		116.3	ug/L	0.2938	0.2527	1,582
Fe2599_R	W	127,400	ug/L	2,228	1.749	284,500
K_7664_R		5,547	ug/L	132.1	2.382	3,259
Li6707_R		101.9	ug/L	1.794	1.762	1,050
Mg2025_A		23,910	ug/L	55.30	0.2313	11,970
Mn2576_R	W	1,279	ug/L	21.79	1.703	14,650
Mo2020_A		4.965	ug/L	0.2870	5.781	22.72
Na5895_R		432.1	ug/L	12.10	2.799	864.0
Ni2316_A		79.55	ug/L	0.05291	0.06651	162.3
Pb2203_A		65.03	ug/L	0.1353	0.2080	86.66
Sb2068_A		0.4203	ug/L	0.2885	68.64	4.845
Se1960_A		-4.685	ug/L	1.900	40.55	6.373
Si2516_R		1,572	ug/L	6.285	0.3999	796.6
Sn1899_A		35.38	ug/L	0.4581	1.295	27.01
Sr4215_R		90.82	ug/L	1.836	2.022	6,795
Ti3349_A	W	3,506	ug/L	0.4848	0.01383	115,800
Tl1908_A		-3.920	ug/L	0.1808	4.612	-8.861
V_2924_A		123.4	ug/L	0.1519	0.1231	1,816
Zn2062_A		263.7	ug/L	0.1300	0.04929	1,275
Y_3600_R		19,857	Cts/S	24.030	0.12102	19,857
Y_2243_A		13,245	Cts/S	0.63054	0.0047610	13,245
Y_3600_A		195,090	Cts/S	178.32	0.091409	195,090

SO8121-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:53:33PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8121-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:53:33PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		5.270	ug/L	0.5372	10.19	-332.0
Al3961_R	W	39,360	ug/L	603.5	1.533	38,880
As1891_A		20.61	ug/L	0.9239	4.482	-1.594
B_2089_A		7.349	ug/L	0.3108	4.230	20.26
Ba4554_R		76.81	ug/L	1.251	1.628	4,861
Be3130_R		1.608	ug/L	0.01131	0.7034	-96.48
Ca3158_R		3,956	ug/L	63.36	1.602	5,386
Cd2265_A		-0.7834	ug/L	0.2459	31.38	272.2
Co2286_A		27.88	ug/L	0.1222	0.4382	190.0
Cr2677_A		53.19	ug/L	0.1569	0.2949	843.0
Cu3273_A		65.54	ug/L	0.2343	0.3575	868.6
Fe2599_R	W	107,600	ug/L	1,508	1.402	230,300
K_7664_R		3,615	ug/L	45.55	1.260	2,019
Li6707_R		62.80	ug/L	1.298	2.067	628.3
Mg2025_A		13,210	ug/L	27.51	0.2083	6,517
Mn2576_R		844.6	ug/L	10.11	1.197	9,264
Mo2020_A		3.039	ug/L	0.1071	3.523	13.96
Na5895_R		178.4	ug/L	6.891	3.862	359.8
Ni2316_A		49.36	ug/L	0.3048	0.6175	95.04
Pb2203_A		55.78	ug/L	0.8255	1.480	75.17
Sb2068_A		0.04433	ug/L	0.07410	167.2	3.818
Se1960_A		-3.022	ug/L	0.9550	31.60	6.115
Si2516_R		1,976	ug/L	20.04	1.014	952.6
Sn1899_A		39.31	ug/L	0.6264	1.594	29.44
Sr4215_R		38.27	ug/L	0.5915	1.546	2,721
Ti3349_A	W	3,881	ug/L	14.91	0.3843	125,800
Tl1908_A		-2.598	ug/L	0.1302	5.011	-7.663
V_2924_A		95.81	ug/L	0.01344	0.01402	1,398
Zn2062_A		148.6	ug/L	0.1754	0.1180	709.3
Y_3600_R		19,031	Cts/S	68.847	0.36177	19,031
Y_2243_A		13,061	Cts/S	13.189	0.10098	13,061
Y_3600_A		191,560	Cts/S	1,056.8	0.55169	191,560

SO8121-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:57:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		5.289	ug/L	0.2203	4.166	-342.6
Al3961_R	W	54,780	ug/L	1,222	2.230	54,570
As1891_A		27.60	ug/L	0.4034	1.462	1.496
B_2089_A		7.126	ug/L	0.1916	2.688	19.64
Ba4554_R		90.73	ug/L	2.121	2.338	5,792
Be3130_R		2.245	ug/L	0.09332	4.157	-29.65
Ca3158_R		5,323	ug/L	149.8	2.814	7,316
Cd2265_A		-0.2444	ug/L	0.4528	185.2	291.0
Co2286_A		30.60	ug/L	0.1196	0.3909	200.9
Cr2677_A		67.93	ug/L	0.1360	0.2002	1,066
Cu3273_A		87.03	ug/L	0.4006	0.4602	1,146
Fe2599_R	W	112,300	ug/L	2,800	2.493	242,400
K_7664_R		3,394	ug/L	118.2	3.482	1,908
Li6707_R		80.36	ug/L	2.433	3.028	805.2
Mg2025_A		17,180	ug/L	6.663	0.03878	8,383
Mn2576_R	W	1,174	ug/L	27.41	2.333	13,000
Mo2020_A		3.725	ug/L	0.1372	3.682	16.75
Na5895_R		219.3	ug/L	0.9985	0.4553	439.0
Ni2316_A		56.15	ug/L	0.5310	0.9458	108.3

SO8121-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 1:57:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		73.39	ug/L	0.3050	0.4155	97.88
Sb2068_A		0.5801	ug/L	1.395	240.5	4.382
Se1960_A		-1.940	ug/L	0.4469	23.04	6.840
Si2516_R		2,144	ug/L	43.69	2.038	1,038
Sn1899_A		37.63	ug/L	0.09321	0.2477	27.91
Sr4215_R		45.95	ug/L	1.023	2.226	3,303
Ti3349_A	W	3,766	ug/L	11.08	0.2941	121,300
Tl1908_A		-2.983	ug/L	0.007074	0.2371	-8.030
V_2924_A		110.4	ug/L	0.1255	0.1137	1,589
Zn2062_A		202.0	ug/L	0.8893	0.4403	952.3
Y_3600_R		19,193	Cts/S	144.54	0.75309	19,193
Y_2243_A		12,910	Cts/S	33.018	0.25576	12,910
Y_3600_A		190,200	Cts/S	338.29	0.17786	190,200

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:02:03PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		521.9	ug/L	10.79	2.068	12,860
Al3961_R		12,600	ug/L	859.2	6.821	12,590
As1891_A		523.8	ug/L	5.560	1.061	270.0
B_2089_A		514.7	ug/L	4.945	0.9607	976.7
Ba4554_R		500.5	ug/L	33.51	6.694	32,020
Be3130_R		492.5	ug/L	33.26	6.753	46,050
Ca3158_R		12,680	ug/L	885.9	6.986	17,470
Cd2265_A		516.0	ug/L	4.770	0.9243	9,560
Co2286_A	W	530.5	ug/L	4.602	0.8675	2,757
Cr2677_A	W	531.8	ug/L	11.75	2.210	8,072
Cu3273_A		501.0	ug/L	12.96	2.588	6,432
Fe2599_R		12,740	ug/L	895.0	7.028	27,520
K_7664_R		12,590	ug/L	858.7	6.821	7,218
Li6707_R		495.3	ug/L	33.48	6.761	4,865
Mg2025_A	W	13,440	ug/L	180.0	1.339	6,571
Mn2576_R		512.8	ug/L	34.16	6.662	5,695
Mo2020_A		521.0	ug/L	5.720	1.098	2,265
Na5895_R		12,340	ug/L	837.7	6.787	23,030
Ni2316_A		519.1	ug/L	5.646	1.088	1,152
Pb2203_A		524.7	ug/L	6.875	1.310	761.9
Sb2068_A	W	529.3	ug/L	7.497	1.416	376.4
Se1960_A		521.2	ug/L	3.646	0.6996	213.2
Si2516_R		12,690	ug/L	855.9	6.744	5,930
Sn1899_A		514.6	ug/L	5.123	0.9955	363.1
Sr4215_R		496.0	ug/L	34.59	6.975	36,080
Ti3349_A	W	527.8	ug/L	12.71	2.409	16,730
Tl1908_A	W	542.7	ug/L	5.737	1.057	444.8
V_2924_A	W	537.6	ug/L	10.75	1.999	7,300
Zn2062_A		521.3	ug/L	5.306	1.018	2,447
Y_3600_R		19,245	Cts/S	913.47	4.7466	19,245
Y_2243_A		12,873	Cts/S	128.37	0.99722	12,873
Y_3600_A		187,110	Cts/S	3,113.4	1.6640	187,110

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:06:11PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:06:11PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1598	ug/L	0.2863	179.1	-12.12
Al3961_R		4.508	ug/L	0.01936	0.4294	-2.554
As1891_A		-0.3918	ug/L	0.4288	109.4	-5.017
B_2089_A		5.348	ug/L	0.03737	0.6987	16.41
Ba4554_R		0.2639	ug/L	0.1854	70.25	10.43
Be3130_R		0.1276	ug/L	0.05440	42.64	6.043
Ca3158_R		2.308	ug/L	2.814	121.9	-15.53
Cd2265_A		0.1640	ug/L	0.03889	23.71	2.476
Co2286_A		0.3422	ug/L	0.1041	30.41	6.337
Cr2677_A		0.2370	ug/L	0.3721	157.0	3.162
Cu3273_A		0.3524	ug/L	0.1385	39.30	-41.66
Fe2599_R		10.27	ug/L	1.281	12.48	30.63
K_7664_R		1.626	ug/L	53.48	3,289	-47.31
Li6707_R		1.836	ug/L	0.8534	46.49	37.60
Mg2025_A		6.901	ug/L	0.2424	3.512	-8.004
Mn2576_R		0.1430	ug/L	0.4812	336.6	-2.125
Mo2020_A		0.5466	ug/L	0.2388	43.69	3.083
Na5895_R		-9.761	ug/L	1.290	13.22	12.45
Ni2316_A		0.2570	ug/L	0.1023	39.80	-0.2399
Pb2203_A		0.1995	ug/L	0.2290	114.8	-1.102
Sb2068_A		0.4143	ug/L	0.002890	0.6974	1.387
Se1960_A		-0.7614	ug/L	0.8626	113.3	3.810
Si2516_R		4.545	ug/L	5.002	110.1	35.37
Sn1899_A		0.1115	ug/L	0.1670	149.7	1.476
Sr4215_R		-0.1525	ug/L	0.1045	68.48	-50.10
Ti3349_A		1.182	ug/L	0.1372	11.61	37.96
Tl1908_A		0.7338	ug/L	0.05147	7.015	-1.076
V_2924_A		0.3524	ug/L	0.1184	33.59	-2.596
Zn2062_A		0.4591	ug/L	0.08461	18.43	3.366
Y_3600_R		19,007	Cts/S	83.476	0.43917	19,007
Y_2243_A		13,061	Cts/S	5.3015	0.040591	13,061
Y_3600_A		193,420	Cts/S	1,255.2	0.64894	193,420

SO8121-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:10:32PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		5.019	ug/L	0.6936	13.82	-434.0
Al3961_R	W	65,810	ug/L	1,490	2.264	66,440
As1891_A		26.49	ug/L	0.02568	0.09693	-1.021
B_2089_A		5.178	ug/L	0.1698	3.278	16.68
Ba4554_R		98.03	ug/L	2.217	2.262	6,343
Be3130_R		2.830	ug/L	0.02730	0.9646	60.61
Ca3158_R		8,641	ug/L	217.9	2.522	12,050
Cd2265_A		-0.7324	ug/L	0.6786	92.66	360.8
Co2286_A		49.52	ug/L	0.03880	0.07836	305.1
Cr2677_A		78.76	ug/L	0.5133	0.6517	1,259
Cu3273_A		106.9	ug/L	0.8129	0.7605	1,456
Fe2599_R	W	138,400	ug/L	4,144	2.994	302,700
K_7664_R		4,918	ug/L	77.03	1.566	2,825
Li6707_R		114.0	ug/L	4.451	3.905	1,149
Mg2025_A		24,760	ug/L	71.82	0.2901	12,500
Mn2576_R	W	1,401	ug/L	27.00	1.927	15,720
Mo2020_A		5.872	ug/L	0.02241	0.3817	27.00
Na5895_R		206.7	ug/L	1.680	0.8124	421.1
Ni2316_A		78.36	ug/L	0.1567	0.2000	159.4

SO8121-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:10:32PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		84.26	ug/L	0.6037	0.7165	116.1
Sb2068_A		-0.1197	ug/L	1.102	920.7	4.771
Se1960_A		-5.015	ug/L	0.7315	14.59	6.623
Si2516_R		2,133	ug/L	32.67	1.532	1,042
Sn1899_A		35.67	ug/L	0.4866	1.364	27.45
Sr4215_R		56.12	ug/L	1.753	3.124	4,097
Ti3349_A	W	3,232	ug/L	9.551	0.2955	105,900
Tl1908_A		-3.238	ug/L	0.9304	28.74	-8.219
V_2924_A		121.0	ug/L	1.038	0.8582	1,768
Zn2062_A		320.3	ug/L	0.4305	0.1344	1,562
Y_3600_R		19,451	Cts/S	160.30	0.82414	19,451
Y_2243_A		13,358	Cts/S	31.425	0.23526	13,358
Y_3600_A		193,580	Cts/S	358.30	0.18510	193,580

SO8140-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:14:46PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		4.522	ug/L	0.08817	1.950	-260.1
Al3961_R	W	63,430	ug/L	551.7	0.8697	63,050
As1891_A		127.1	ug/L	0.7132	0.5611	56.21
B_2089_A		7.273	ug/L	0.05761	0.7920	20.04
Ba4554_R		118.6	ug/L	0.7181	0.6057	7,554
Be3130_R		2.208	ug/L	0.01531	0.6933	-29.12
Ca3158_R		3,557	ug/L	30.82	0.8665	4,871
Cd2265_A		-0.3343	ug/L	0.06967	20.84	214.2
Co2286_A		29.03	ug/L	0.04104	0.1414	193.3
Cr2677_A		99.87	ug/L	0.06575	0.06583	1,551
Cu3273_A		69.31	ug/L	0.3037	0.4381	883.9
Fe2599_R	W	82,610	ug/L	600.8	0.7272	177,900
K_7664_R		5,471	ug/L	17.67	0.3230	3,099
Li6707_R		96.22	ug/L	0.5042	0.5240	958.1
Mg2025_A		14,270	ug/L	16.61	0.1164	7,015
Mn2576_R		762.8	ug/L	5.169	0.6777	8,419
Mo2020_A		2.853	ug/L	0.1342	4.702	13.09
Na5895_R		320.7	ug/L	3.959	1.235	626.2
Ni2316_A		72.48	ug/L	0.1606	0.2215	149.8
Pb2203_A		40.75	ug/L	1.247	3.060	49.31
Sb2068_A		0.2524	ug/L	0.9536	377.8	3.560
Se1960_A		0.3059	ug/L	1.091	356.6	7.112
Si2516_R		3,720	ug/L	7.228	0.1943	1,767
Sn1899_A		37.83	ug/L	0.09248	0.2444	28.28
Sr4215_R		20.12	ug/L	0.06944	0.3452	1,421
Ti3349_A	W	3,724	ug/L	22.90	0.6151	119,700
Tl1908_A		-1.777	ug/L	0.2648	14.90	-6.638
V_2924_A		128.7	ug/L	0.6262	0.4864	1,834
Zn2062_A		157.3	ug/L	0.03237	0.02058	747.5
Y_3600_R		19,149	Cts/S	159.09	0.83078	19,149
Y_2243_A		13,015	Cts/S	14.366	0.11038	13,015
Y_3600_A		189,870	Cts/S	893.60	0.47065	189,870

SO8172-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:19:01PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8172-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:19:01PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		36.78	ug/L	0.05951	0.1618	29.58
Al3961_R	W	69,850	ug/L	1,759	2.519	72,680
As1891_A		8.555	ug/L	0.6642	7.764	-18.14
B_2089_A		50.69	ug/L	0.1237	0.2440	106.1
Ba4554_R	F	56,290	ug/L	364.5	0.6476	3,757,000
Be3130_R		0.5899	ug/L	0.01514	2.566	-116.5
Ca3158_R	W	49,650	ug/L	1,319	2.656	71,390
Cd2265_A		5.079	ug/L	0.2725	5.365	763.4
Co2286_A		32.57	ug/L	0.1761	0.5407	213.0
Cr2677_A		232.1	ug/L	0.8496	0.3660	3,797
Cu3273_A		444.5	ug/L	0.6914	0.1555	6,244
Fe2599_R	W	244,400	ug/L	1,621	0.6634	550,800
K_7664_R		2,044	ug/L	17.96	0.8787	1,180
Li6707_R		23.22	ug/L	2.230	9.605	257.6
Mg2025_A		15,540	ug/L	5.180	0.03333	7,943
Mn2576_R	W	6,879	ug/L	177.3	2.577	79,630
Mo2020_A		32.74	ug/L	0.1457	0.4450	149.5
Na5895_R		12,220	ug/L	321.3	2.628	23,780
Ni2316_A		306.4	ug/L	0.2833	0.09246	675.4
Pb2203_A	W	4,936	ug/L	0.2120	0.004294	7,549
Sb2068_A		4.000	ug/L	0.2800	7.000	11.27
Se1960_A		-6.873	ug/L	0.8198	11.93	9.821
Si2516_R		6,045	ug/L	186.3	3.081	2,955
Sn1899_A		52.13	ug/L	0.5600	1.074	39.91
Sr4215_R	W	3,060	ug/L	34.68	1.133	232,400
Ti3349_A	W	2,594	ug/L	4.698	0.1811	87,490
Tl1908_A		-2.462	ug/L	0.01708	0.6938	-12.19
V_2924_A		74.56	ug/L	0.001669	0.002238	1,132
Zn2062_A	W	6,871	ug/L	9.022	0.1313	33,880
Y_3600_R		20,038	Cts/S	323.28	1.6133	20,038
Y_2243_A		13,512	Cts/S	28.508	0.21098	13,512
Y_3600_A		199,210	Cts/S	163.60	0.082124	199,210

SO8099-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:23:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.3770	ug/L	0.3630	96.28	-25.56
Al3961_R		4.411	ug/L	2.332	52.86	52.00
As1891_A		-0.4698	ug/L	0.2985	63.54	-4.904
B_2089_A		32.35	ug/L	0.1507	0.4659	64.76
Ba4554_R		31.12	ug/L	5.287	16.99	1,926
Be3130_R		0.004599	ug/L	0.05833	1,268	-5.295
Ca3158_R	W	66,640	ug/L	1,069	1.604	89,120
Cd2265_A		-0.02001	ug/L	0.003176	15.87	-0.5258
Co2286_A		0.1803	ug/L	0.06225	34.52	5.323
Cr2677_A		0.5139	ug/L	0.02054	3.997	7.270
Cu3273_A		0.6212	ug/L	0.2445	39.35	-36.62
Fe2599_R		172.6	ug/L	19.58	11.35	370.3
K_7664_R		2,116	ug/L	14.16	0.6691	1,137
Li6707_R		3.650	ug/L	1.340	36.70	54.03
Mg2025_A		1,981	ug/L	3.372	0.1702	935.7
Mn2576_R		15.03	ug/L	0.6211	4.131	159.0
Mo2020_A		0.1049	ug/L	0.1142	108.9	1.096
Na5895_R		8,859	ug/L	139.9	1.580	16,040
Ni2316_A		-0.1678	ug/L	0.1534	91.39	-1.182

SO8099-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:23:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.3872	ug/L	0.4734	122.3	-0.7970
Sb2068_A		0.5045	ug/L	0.1411	27.97	1.398
Se1960_A		0.3947	ug/L	0.3749	94.98	4.147
Si2516_R		6,423	ug/L	85.74	1.335	2,924
Sn1899_A		1.798	ug/L	0.1156	6.431	2.591
Sr4215_R		163.6	ug/L	3.514	2.149	11,510
Ti3349_A		2.515	ug/L	0.1949	7.748	78.76
Tl1908_A		-0.7692	ug/L	0.4873	63.35	-2.265
V_2924_A		0.1335	ug/L	0.1725	129.2	-5.493
Zn2062_A		3.840	ug/L	0.1231	3.205	18.84
Y_3600_R		18,631	Cts/S	136.82	0.73432	18,631
Y_2243_A		12,635	Cts/S	6.4346	0.050928	12,635
Y_3600_A		186,720	Cts/S	217.41	0.11644	186,720

SO8118-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:27:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2624	ug/L	0.4194	159.8	-9.564
Al3961_R		32.20	ug/L	3.953	12.28	26.98
As1891_A		-0.6277	ug/L	0.6933	110.4	-5.133
B_2089_A		5.915	ug/L	0.05391	0.9113	17.40
Ba4554_R		11.16	ug/L	0.02556	0.2290	686.2
Be3130_R		0.02577	ug/L	0.1064	413.0	-3.253
Ca3158_R		3,336	ug/L	14.30	0.4287	4,442
Cd2265_A		0.02911	ug/L	0.01467	50.39	0.02171
Co2286_A		0.04979	ug/L	0.3223	647.2	4.787
Cr2677_A		0.6794	ug/L	0.08699	12.80	10.01
Cu3273_A		0.7159	ug/L	0.3081	43.04	-36.50
Fe2599_R		37.96	ug/L	2.036	5.363	88.01
K_7664_R		1,024	ug/L	1.540	0.1504	525.7
Li6707_R		0.5765	ug/L	0.08782	15.23	24.92
Mg2025_A		1,021	ug/L	1.570	0.1538	491.6
Mn2576_R		3.400	ug/L	0.5826	17.14	33.35
Mo2020_A		-0.1808	ug/L	0.1070	59.17	-0.1260
Na5895_R		1,445	ug/L	10.33	0.7147	2,640
Ni2316_A		-0.004482	ug/L	0.1825	4,071	-0.8390
Pb2203_A		0.5359	ug/L	0.1726	32.21	-0.6055
Sb2068_A		0.9726	ug/L	0.4137	42.53	1.784
Se1960_A		1.685	ug/L	0.3617	21.46	4.793
Si2516_R		4,816	ug/L	56.74	1.178	2,200
Sn1899_A		0.8452	ug/L	0.1122	13.27	1.994
Sr4215_R		24.21	ug/L	0.3217	1.329	1,671
Ti3349_A		1.093	ug/L	0.006534	0.5978	34.77
Tl1908_A		-0.8580	ug/L	0.1613	18.80	-2.399
V_2924_A		0.6055	ug/L	0.1426	23.54	1.012
Zn2062_A		2.200	ug/L	0.1066	4.848	11.63
Y_3600_R		18,625	Cts/S	88.575	0.47557	18,625
Y_2243_A		13,029	Cts/S	14.959	0.11482	13,029
Y_3600_A		192,010	Cts/S	921.71	0.48003	192,010

SO8118-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:32:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8118-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:32:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.153	ug/L	0.06513	5.648	-66.86
Al3961_R		170.2	ug/L	9.043	5.314	163.0
As1891_A		3.394	ug/L	1.480	43.61	-4.465
B_2089_A		15.07	ug/L	0.004474	0.02968	34.16
Ba4554_R		43.11	ug/L	0.3243	0.7522	2,655
Be3130_R		0.04137	ug/L	0.06031	145.8	-2.072
Ca3158_R		7,473	ug/L	2.281	0.03053	9,927
Cd2265_A		-0.1593	ug/L	0.06310	39.61	57.30
Co2286_A		1.985	ug/L	0.005295	0.2668	15.37
Cr2677_A		-0.07393	ug/L	0.06873	92.97	5.182
Cu3273_A		-0.6405	ug/L	0.1718	26.82	-33.83
Fe2599_R		23,550	ug/L	12.99	0.05516	49,110
K_7664_R		5,831	ug/L	8.910	0.1528	3,200
Li6707_R		0.6674	ug/L	1.531	229.4	25.55
Mg2025_A		1,715	ug/L	6.440	0.3754	825.3
Mn2576_R	W	2,663	ug/L	18.44	0.6922	28,550
Mo2020_A		0.6428	ug/L	0.05449	8.477	3.222
Na5895_R		3,803	ug/L	10.54	0.2771	6,867
Ni2316_A		1.389	ug/L	0.2951	21.24	-0.9343
Pb2203_A		0.7442	ug/L	0.3133	42.10	-0.3624
Sb2068_A		0.3241	ug/L	1.532	472.6	1.892
Se1960_A		0.7384	ug/L	0.4076	55.20	5.488
Si2516_R		7,113	ug/L	5.837	0.08207	3,217
Sn1899_A		0.9294	ug/L	0.02388	2.569	2.032
Sr4215_R		40.91	ug/L	0.06257	0.1530	2,836
Ti3349_A		5.961	ug/L	0.1282	2.151	191.6
Tl1908_A		-1.850	ug/L	0.2179	11.78	-5.483
V_2924_A		2.627	ug/L	0.2759	10.50	23.06
Zn2062_A		2.794	ug/L	0.01590	0.5689	14.30
Y_3600_R		18,538	Cts/S	281.68	1.5195	18,538
Y_2243_A		12,887	Cts/S	95.844	0.74370	12,887
Y_3600_A		190,620	Cts/S	506.91	0.26593	190,620

SO8152-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:36:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1697	ug/L	0.3741	220.5	-11.75
Al3961_R		8.995	ug/L	9.051	100.6	14.81
As1891_A		0.07882	ug/L	0.1298	164.7	-4.717
B_2089_A		4.753	ug/L	0.1376	2.895	15.11
Ba4554_R		8.862	ug/L	0.2651	2.992	550.3
Be3130_R		-0.006451	ug/L	0.01122	173.9	-6.231
Ca3158_R		15,620	ug/L	278.7	1.784	21,140
Cd2265_A		-0.001811	ug/L	0.02699	1,490	-0.5978
Co2286_A		0.01512	ug/L	0.1042	689.2	4.559
Cr2677_A		0.1993	ug/L	0.1243	62.36	2.523
Cu3273_A		0.5126	ug/L	0.3436	67.03	-39.00
Fe2599_R		21.09	ug/L	1.736	8.230	53.36
K_7664_R		2,927	ug/L	28.86	0.9860	1,611
Li6707_R		15.40	ug/L	2.477	16.09	167.5
Mg2025_A		3,155	ug/L	16.30	0.5167	1,531
Mn2576_R		1.899	ug/L	0.5424	28.57	18.11
Mo2020_A		-0.08784	ug/L	0.004412	5.023	0.2809
Na5895_R		9,090	ug/L	157.9	1.737	16,660
Ni2316_A		0.02615	ug/L	0.2809	1,074	-0.7614

SO8152-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:36:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.1661	ug/L	0.1181	71.09	-1.626
Sb2068_A		0.8845	ug/L	0.03172	3.586	1.704
Se1960_A		0.4988	ug/L	0.5930	118.9	4.277
Si2516_R		8,022	ug/L	147.5	1.839	3,689
Sn1899_A		0.8531	ug/L	0.6917	81.08	1.984
Sr4215_R		117.3	ug/L	1.436	1.224	8,347
Ti3349_A		-0.04050	ug/L	0.1943	479.8	-2.069
Tl1908_A		-0.5217	ug/L	0.09699	18.59	-2.101
V_2924_A		0.1575	ug/L	0.4156	264.0	-5.259
Zn2062_A		0.6517	ug/L	0.1256	19.27	4.240
Y_3600_R		18,858	Cts/S	52.862	0.28031	18,858
Y_2243_A		12,925	Cts/S	20.833	0.16119	12,925
Y_3600_A		190,970	Cts/S	67.762	0.035484	190,970

SO8152-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:40:55PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3401	ug/L	0.1347	39.60	-7.377
Al3961_R		5.379	ug/L	0.2536	4.714	23.45
As1891_A		-0.6103	ug/L	1.423	233.1	-5.104
B_2089_A		5.675	ug/L	0.04916	0.8663	16.93
Ba4554_R		0.5370	ug/L	0.1341	24.96	27.30
Be3130_R		0.07114	ug/L	0.04432	62.29	0.8785
Ca3158_R	W	30,550	ug/L	387.9	1.269	40,960
Cd2265_A		0.02371	ug/L	0.04365	184.1	-0.1450
Co2286_A		0.01291	ug/L	0.1244	964.0	4.565
Cr2677_A		0.3468	ug/L	0.09681	27.92	4.781
Cu3273_A		0.2014	ug/L	0.3575	177.5	-42.89
Fe2599_R		13.54	ug/L	0.3006	2.221	36.98
K_7664_R		3,003	ug/L	75.58	2.517	1,638
Li6707_R		13.54	ug/L	0.1814	1.340	148.3
Mg2025_A		4,626	ug/L	4.234	0.09153	2,260
Mn2576_R		1.418	ug/L	0.3227	22.76	13.21
Mo2020_A		0.5787	ug/L	0.03126	5.401	3.206
Na5895_R		4,693	ug/L	35.60	0.7587	8,533
Ni2316_A		0.1933	ug/L	0.006416	3.319	-0.3805
Pb2203_A		0.3390	ug/L	0.3492	103.0	-0.8909
Sb2068_A		-0.2120	ug/L	0.08976	42.34	0.9276
Se1960_A		1.551	ug/L	0.9513	61.33	4.721
Si2516_R		5,899	ug/L	40.59	0.6881	2,696
Sn1899_A		0.3161	ug/L	0.4263	134.9	1.612
Sr4215_R		282.2	ug/L	4.637	1.643	19,940
Ti3349_A		-0.4110	ug/L	0.02997	7.291	-13.97
Tl1908_A		-1.121	ug/L	0.1982	17.68	-2.606
V_2924_A		-0.06876	ug/L	0.01486	21.61	-8.443
Zn2062_A		0.8287	ug/L	0.01088	1.313	5.097
Y_3600_R		18,681	Cts/S	118.61	0.63491	18,681
Y_2243_A		12,984	Cts/S	15.655	0.12057	12,984
Y_3600_A		190,070	Cts/S	525.91	0.27669	190,070

SO8152-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:45:16PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8152-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:45:16PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.06000	ug/L	0.07280	121.3	-17.60
Al3961_R		17.90	ug/L	1.345	7.511	35.95
As1891_A		-0.3215	ug/L	0.1769	55.02	-4.891
B_2089_A		5.024	ug/L	0.1440	2.865	15.50
Ba4554_R		0.6939	ug/L	0.05940	8.561	36.67
Be3130_R		0.03996	ug/L	0.009061	22.68	-1.956
Ca3158_R	W	31,430	ug/L	426.0	1.355	41,720
Cd2265_A		0.01726	ug/L	0.07453	431.9	-0.04343
Co2286_A		-0.01252	ug/L	0.09561	763.6	4.382
Cr2677_A		0.5974	ug/L	0.2958	49.51	8.784
Cu3273_A		0.6480	ug/L	0.1373	21.19	-36.68
Fe2599_R		98.26	ug/L	1.716	1.746	212.8
K_7664_R		4,326	ug/L	40.27	0.9310	2,357
Li6707_R		29.20	ug/L	1.434	4.909	294.3
Mg2025_A		6,682	ug/L	20.68	0.3095	3,227
Mn2576_R		152.0	ug/L	2.564	1.687	1,625
Mo2020_A		0.4875	ug/L	0.05056	10.37	2.756
Na5895_R		6,690	ug/L	101.2	1.513	12,030
Ni2316_A		-0.1763	ug/L	0.06619	37.54	-1.201
Pb2203_A		0.1125	ug/L	0.1511	134.3	-1.210
Sb2068_A		0.2356	ug/L	0.1007	42.71	1.231
Se1960_A		1.627	ug/L	0.6982	42.92	4.724
Si2516_R		8,703	ug/L	132.5	1.522	3,922
Sn1899_A		1.078	ug/L	0.7409	68.74	2.124
Sr4215_R		141.5	ug/L	1.268	0.8959	9,881
Ti3349_A		0.3207	ug/L	0.1982	61.81	9.509
Tl1908_A		-1.029	ug/L	0.1107	10.76	-2.625
V_2924_A		0.1762	ug/L	0.06801	38.61	-5.683
Zn2062_A		2.939	ug/L	0.06432	2.189	14.89
Y_3600_R		18,495	Cts/S	70.772	0.38265	18,495
Y_2243_A		12,814	Cts/S	16.417	0.12812	12,814
Y_3600_A		188,520	Cts/S	411.45	0.21825	188,520

SO8152-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:49:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1125	ug/L	0.4518	401.7	-13.01
Al3961_R		14.43	ug/L	7.125	49.36	16.81
As1891_A		-0.7153	ug/L	0.5242	73.28	-5.095
B_2089_A		8.043	ug/L	0.1589	1.976	21.04
Ba4554_R		10.72	ug/L	0.1590	1.482	657.0
Be3130_R		0.04996	ug/L	0.003632	7.271	-1.024
Ca3158_R		11,960	ug/L	54.25	0.4536	15,920
Cd2265_A		0.08721	ug/L	0.02041	23.40	1.016
Co2286_A		0.05178	ug/L	0.04882	94.30	4.712
Cr2677_A		0.1699	ug/L	0.1589	93.52	2.044
Cu3273_A		7.296	ug/L	0.1004	1.376	49.82
Fe2599_R		11.87	ug/L	0.4130	3.479	33.28
K_7664_R		1,873	ug/L	7.679	0.4100	997.6
Li6707_R		4.553	ug/L	0.05427	1.192	62.43
Mg2025_A		1,632	ug/L	12.55	0.7691	779.9
Mn2576_R		3.220	ug/L	0.4470	13.88	31.53
Mo2020_A		0.1191	ug/L	0.03256	27.33	1.174
Na5895_R		8,209	ug/L	22.67	0.2761	14,810
Ni2316_A		3.023	ug/L	0.1900	6.285	5.842

SO8152-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:49:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.2166	ug/L	0.5402	249.4	-1.052
Sb2068_A		0.8711	ug/L	0.5799	66.57	1.681
Se1960_A		1.959	ug/L	0.8583	43.82	4.822
Si2516_R		4,244	ug/L	5.891	0.1388	1,937
Sn1899_A		0.7760	ug/L	0.1391	17.93	1.913
Sr4215_R		159.4	ug/L	1.112	0.6975	11,180
Ti3349_A		0.06763	ug/L	0.1091	161.3	1.411
Tl1908_A		-1.055	ug/L	0.08736	8.277	-2.519
V_2924_A		0.5049	ug/L	0.1174	23.25	-0.4195
Zn2062_A		6.596	ug/L	0.05370	0.8142	32.00
Y_3600_R		18,567	Cts/S	100.51	0.54132	18,567
Y_2243_A		12,817	Cts/S	94.773	0.73942	12,817
Y_3600_A		188,570	Cts/S	354.56	0.18803	188,570

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:53:57PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		513.3	ug/L	4.184	0.8152	12,830
Al3961_R		13,000	ug/L	89.59	0.6889	12,550
As1891_A		524.8	ug/L	7.450	1.420	271.1
B_2089_A		512.5	ug/L	3.159	0.6165	975.1
Ba4554_R		516.6	ug/L	1.571	0.3041	31,910
Be3130_R		506.6	ug/L	2.046	0.4038	45,740
Ca3158_R		13,120	ug/L	75.00	0.5718	17,450
Cd2265_A		518.6	ug/L	3.291	0.6346	9,634
Co2286_A	W	536.0	ug/L	3.632	0.6776	2,793
Cr2677_A		523.7	ug/L	5.037	0.9619	8,064
Cu3273_A		492.8	ug/L	0.01671	0.003391	6,419
Fe2599_R		13,130	ug/L	39.11	0.2978	27,400
K_7664_R		12,920	ug/L	57.11	0.4422	7,151
Li6707_R		508.2	ug/L	0.6640	0.1307	4,819
Mg2025_A	W	13,530	ug/L	85.79	0.6340	6,633
Mn2576_R	W	531.8	ug/L	4.705	0.8848	5,701
Mo2020_A		523.9	ug/L	3.492	0.6665	2,284
Na5895_R		12,650	ug/L	61.50	0.4862	22,790
Ni2316_A		521.8	ug/L	1.888	0.3618	1,161
Pb2203_A	W	527.1	ug/L	2.373	0.4503	767.4
Sb2068_A	W	533.0	ug/L	3.846	0.7216	380.0
Se1960_A		526.0	ug/L	3.702	0.7039	215.6
Si2516_R		13,060	ug/L	66.45	0.5089	5,890
Sn1899_A		516.9	ug/L	4.633	0.8963	365.7
Sr4215_R		511.6	ug/L	0.06200	0.01212	35,940
Ti3349_A		513.5	ug/L	0.8224	0.1602	16,510
Tl1908_A	W	549.0	ug/L	3.737	0.6806	451.2
V_2924_A	W	531.0	ug/L	7.323	1.379	7,315
Zn2062_A	W	527.4	ug/L	3.265	0.6190	2,482
Y_3600_R		18,551	Cts/S	61.885	0.33359	18,551
Y_2243_A		12,906	Cts/S	57.637	0.44661	12,906
Y_3600_A		189,800	Cts/S	734.74	0.38711	189,800

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:58:04PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 2:58:04PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.5434	ug/L	0.03958	7.285	-2.308
Al3961_R		8.726	ug/L	2.893	33.15	1.590
As1891_A		-0.6136	ug/L	0.6998	114.1	-5.142
B_2089_A		2.850	ug/L	0.4379	15.36	11.74
Ba4554_R		0.3318	ug/L	0.2077	62.60	14.56
Be3130_R		0.3048	ug/L	0.01927	6.323	22.14
Ca3158_R		7.947	ug/L	1.785	22.46	-7.714
Cd2265_A		0.1805	ug/L	0.005697	3.157	2.788
Co2286_A		0.3890	ug/L	0.1695	43.58	6.589
Cr2677_A		0.3270	ug/L	0.02607	7.974	4.546
Cu3273_A		0.1795	ug/L	0.3311	184.5	-43.88
Fe2599_R		10.25	ug/L	1.072	10.46	30.15
K_7664_R		19.24	ug/L	6.676	34.69	-36.64
Li6707_R		0.5748	ug/L	2.469	429.6	25.07
Mg2025_A		0.7722	ug/L	0.6471	83.80	-11.04
Mn2576_R		0.1601	ug/L	0.02065	12.90	-1.900
Mo2020_A		0.4645	ug/L	0.1654	35.62	2.723
Na5895_R		-2.921	ug/L	1.328	45.47	24.70
Ni2316_A		0.06685	ug/L	0.04582	68.53	-0.6684
Pb2203_A		-0.09817	ug/L	0.2792	284.4	-1.546
Sb2068_A		-0.2021	ug/L	0.8941	442.3	0.9403
Se1960_A		1.863	ug/L	0.5845	31.37	4.882
Si2516_R		14.02	ug/L	11.65	83.11	39.15
Sn1899_A		0.3379	ug/L	0.02093	6.193	1.639
Sr4215_R		0.03932	ug/L	0.1204	306.2	-35.73
Ti3349_A		0.9009	ug/L	0.03167	3.515	28.69
Tl1908_A		0.1238	ug/L	0.8245	666.1	-1.584
V_2924_A		0.3976	ug/L	0.07299	18.36	-1.958
Zn2062_A		0.5356	ug/L	0.1090	20.35	3.735
Y_3600_R		18,733	Cts/S	41.763	0.22294	18,733
Y_2243_A		13,076	Cts/S	22.882	0.17499	13,076
Y_3600_A		193,060	Cts/S	279.06	0.14454	193,060

SO8152-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:02:26PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1964	ug/L	0.2902	147.7	-10.96
Al3961_R		1.935	ug/L	0.2596	13.42	40.18
As1891_A		0.2893	ug/L	0.1212	41.91	-4.502
B_2089_A		5.995	ug/L	0.2626	4.381	17.06
Ba4554_R		8.588	ug/L	0.1241	1.445	522.0
Be3130_R		0.008907	ug/L	0.03003	337.1	-4.740
Ca3158_R	W	55,520	ug/L	780.7	1.406	73,590
Cd2265_A		0.07588	ug/L	0.02669	35.18	0.8906
Co2286_A		0.1950	ug/L	0.02764	14.17	5.377
Cr2677_A		0.3942	ug/L	0.3340	84.72	5.478
Cu3273_A		2.582	ug/L	0.6114	23.68	-11.46
Fe2599_R		47.90	ug/L	0.9943	2.076	107.9
K_7664_R		4,397	ug/L	30.24	0.6878	2,392
Li6707_R		2.685	ug/L	0.4934	18.37	44.53
Mg2025_A		5,454	ug/L	1.122	0.02057	2,594
Mn2576_R		38.17	ug/L	0.4042	1.059	405.8
Mo2020_A		1.193	ug/L	0.09540	7.995	5.736
Na5895_R		14,270	ug/L	218.0	1.528	25,590
Ni2316_A		1.007	ug/L	0.06150	6.104	1.399

SO8152-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:02:26PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.1521	ug/L	0.1764	116.0	-1.569
Sb2068_A		0.5649	ug/L	1.021	180.8	1.442
Se1960_A		1.264	ug/L	1.268	100.3	4.489
Si2516_R		6,136	ug/L	59.97	0.9775	2,770
Sn1899_A		0.9102	ug/L	0.3863	42.45	1.978
Sr4215_R	W	1,172	ug/L	18.57	1.584	82,010
Ti3349_A		0.7129	ug/L	0.1709	23.98	21.90
Tl1908_A		-1.184	ug/L	0.5376	45.40	-2.616
V_2924_A		0.6157	ug/L	0.1263	20.51	0.8642
Zn2062_A		1.680	ug/L	0.1426	8.487	8.880
Y_3600_R		18,464	Cts/S	0.81058	0.0043900	18,464
Y_2243_A		12,629	Cts/S	3.7444	0.029649	12,629
Y_3600_A		187,340	Cts/S	654.48	0.34936	187,340

SO8152-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:06:47PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.9235	ug/L	0.2037	22.06	-51.18
Al3961_R		59.87	ug/L	1.798	3.004	78.93
As1891_A		8.582	ug/L	0.1264	1.473	-1.330
B_2089_A		6.206	ug/L	0.05958	0.9601	17.57
Ba4554_R		36.00	ug/L	0.6440	1.789	2,197
Be3130_R		0.1121	ug/L	0.007645	6.822	4.588
Ca3158_R	W	35,360	ug/L	327.4	0.9260	46,630
Cd2265_A		-0.1821	ug/L	0.04275	23.47	40.82
Co2286_A		12.06	ug/L	0.1925	1.596	66.57
Cr2677_A		0.4260	ug/L	0.09060	21.27	13.04
Cu3273_A		-1.427	ug/L	0.1216	8.520	-48.42
Fe2599_R		17,540	ug/L	190.5	1.086	36,250
K_7664_R		5,498	ug/L	13.34	0.2426	2,988
Li6707_R		28.45	ug/L	0.06989	0.2456	285.4
Mg2025_A		8,034	ug/L	33.22	0.4136	3,856
Mn2576_R	W	3,649	ug/L	40.74	1.116	38,780
Mo2020_A		0.9224	ug/L	0.09412	10.20	4.299
Na5895_R		18,840	ug/L	177.7	0.9433	33,610
Ni2316_A		-0.1631	ug/L	0.04384	26.87	-3.498
Pb2203_A		0.6401	ug/L	0.5171	80.78	-0.4813
Sb2068_A		-0.06742	ug/L	0.9886	1,466	1.438
Se1960_A		1.125	ug/L	1.021	90.72	5.637
Si2516_R		12,010	ug/L	77.48	0.6450	5,366
Sn1899_A		1.318	ug/L	0.4557	34.58	2.277
Sr4215_R		223.6	ug/L	2.409	1.078	15,530
Ti3349_A		0.5421	ug/L	0.1777	32.78	16.44
Tl1908_A		-1.573	ug/L	0.1619	10.29	-5.977
V_2924_A		1.778	ug/L	0.08901	5.007	4.569
Zn2062_A		1.092	ug/L	0.04896	4.484	6.217
Y_3600_R		18,375	Cts/S	71.888	0.39123	18,375
Y_2243_A		12,726	Cts/S	26.615	0.20915	12,726
Y_3600_A		187,150	Cts/S	893.38	0.47736	187,150

SO8173-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:11:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8173-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:11:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.616	ug/L	0.3084	11.79	-215.9
Al3961_R		0.6847	ug/L	9.461	1,382	24.54
As1891_A	W	1,124	ug/L	5.575	0.4961	575.7
B_2089_A		167.5	ug/L	1.308	0.7809	312.2
Ba4554_R		60.10	ug/L	0.7390	1.230	3,703
Be3130_R		0.01064	ug/L	0.03550	333.5	-4.551
Ca3158_R	W	37,590	ug/L	470.6	1.252	50,010
Cd2265_A		-0.6966	ug/L	0.02635	3.783	190.7
Co2286_A		25.50	ug/L	0.2047	0.8028	137.0
Cr2677_A		-1.143	ug/L	0.1773	15.52	-2.772
Cu3273_A		-6.979	ug/L	0.1781	2.552	-66.92
Fe2599_R	W	79,860	ug/L	925.0	1.158	166,500
K_7664_R		10,580	ug/L	108.1	1.022	5,845
Li6707_R		2.673	ug/L	0.4298	16.08	44.60
Mg2025_A		5,711	ug/L	47.37	0.8294	2,744
Mn2576_R	W	2,801	ug/L	26.07	0.9306	30,010
Mo2020_A		3.119	ug/L	0.1837	5.889	13.83
Na5895_R		17,530	ug/L	170.7	0.9738	31,540
Ni2316_A		2.815	ug/L	0.1611	5.722	-5.337
Pb2203_A		2.705	ug/L	0.7969	29.47	2.386
Sb2068_A		0.005019	ug/L	0.1153	2,297	3.093
Se1960_A		-0.8065	ug/L	0.1862	23.08	6.201
Si2516_R		10,340	ug/L	173.6	1.679	4,659
Sn1899_A		1.095	ug/L	0.01661	1.517	2.124
Sr4215_R		410.8	ug/L	5.209	1.268	28,820
Ti3349_A		-0.3280	ug/L	0.2356	71.81	-11.02
Tl1908_A		-1.632	ug/L	0.008937	0.5477	-5.365
V_2924_A		0.6180	ug/L	0.3148	50.95	9.854
Zn2062_A		4.446	ug/L	0.05142	1.156	21.83
Y_3600_R		18,537	Cts/S	149.99	0.80913	18,537
Y_2243_A		12,743	Cts/S	48.127	0.37768	12,743
Y_3600_A		186,340	Cts/S	543.37	0.29160	186,340

SO8173-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:15:22PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.999	ug/L	0.08653	4.329	-175.3
Al3961_R		-21.13	ug/L	0.1376	0.6513	-2.954
As1891_A		863.5	ug/L	0.4402	0.05099	444.6
B_2089_A		130.8	ug/L	0.4548	0.3478	247.0
Ba4554_R		46.94	ug/L	1.031	2.196	2,880
Be3130_R		0.01683	ug/L	0.03084	183.2	-3.964
Ca3158_R	W	29,590	ug/L	288.6	0.9752	39,220
Cd2265_A		-0.6311	ug/L	0.1805	28.60	149.5
Co2286_A		19.68	ug/L	0.2154	1.095	107.6
Cr2677_A		-0.9446	ug/L	0.2806	29.70	-3.036
Cu3273_A		-6.646	ug/L	0.8134	12.24	-77.36
Fe2599_R	W	62,810	ug/L	1,278	2.034	130,500
K_7664_R		8,333	ug/L	66.07	0.7929	4,576
Li6707_R		2.256	ug/L	2.093	92.80	40.40
Mg2025_A		4,522	ug/L	9.682	0.2141	2,187
Mn2576_R	W	2,188	ug/L	18.31	0.8368	23,360
Mo2020_A		2.244	ug/L	0.1056	4.705	10.20
Na5895_R		13,750	ug/L	114.0	0.8290	24,660
Ni2316_A		2.439	ug/L	0.07810	3.202	-3.908

SO8173-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:15:22PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.365	ug/L	0.1111	8.137	0.4933
Sb2068_A		-0.3948	ug/L	0.009309	2.358	2.392
Se1960_A		-2.133	ug/L	0.2111	9.898	5.177
Si2516_R		8,065	ug/L	89.07	1.104	3,627
Sn1899_A		1.223	ug/L	0.1732	14.17	2.230
Sr4215_R		321.9	ug/L	6.961	2.163	22,490
Ti3349_A		-0.4789	ug/L	0.1151	24.04	-15.86
Tl1908_A		-0.9378	ug/L	0.2048	21.84	-4.312
V_2924_A		0.2435	ug/L	0.1472	60.47	2.974
Zn2062_A		2.415	ug/L	0.03982	1.649	12.48
Y_3600_R		18,468	Cts/S	189.17	1.0243	18,468
Y_2243_A		12,841	Cts/S	1.4257	0.011103	12,841
Y_3600_A		187,200	Cts/S	1,290.3	0.68926	187,200

SO8173-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:19:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.200	ug/L	0.3207	26.72	-117.6
Al3961_R		109.5	ug/L	3.693	3.372	133.2
As1891_A		19.27	ug/L	0.07339	0.3808	2.855
B_2089_A		208.4	ug/L	0.6112	0.2932	387.6
Ba4554_R		106.6	ug/L	0.2045	0.1919	6,566
Be3130_R		0.01609	ug/L	0.09220	573.0	-4.229
Ca3158_R	W	42,730	ug/L	365.5	0.8554	56,790
Cd2265_A		-0.3215	ug/L	0.02624	8.162	94.50
Co2286_A		17.56	ug/L	0.2122	1.208	95.54
Cr2677_A		-0.2461	ug/L	0.1518	61.65	3.053
Cu3273_A		-2.638	ug/L	0.4068	15.42	-45.57
Fe2599_R	W	39,450	ug/L	40.15	0.1018	82,160
K_7664_R		9,843	ug/L	131.6	1.337	5,429
Li6707_R		1.458	ug/L	2.688	184.4	33.12
Mg2025_A		6,265	ug/L	7.221	0.1153	3,015
Mn2576_R	W	1,280	ug/L	10.33	0.8077	13,690
Mo2020_A		-0.08607	ug/L	0.01277	14.84	0.1725
Na5895_R		14,670	ug/L	63.90	0.4354	26,380
Ni2316_A		0.1902	ug/L	0.02492	13.10	-5.702
Pb2203_A		0.6258	ug/L	0.03926	6.274	-0.5502
Sb2068_A		0.2597	ug/L	0.4557	175.4	2.222
Se1960_A		-0.9564	ug/L	0.2887	30.19	4.842
Si2516_R		5,235	ug/L	0.8649	0.01652	2,372
Sn1899_A		0.9679	ug/L	0.2341	24.18	2.039
Sr4215_R		381.4	ug/L	1.656	0.4341	26,730
Ti3349_A		2.921	ug/L	0.1598	5.472	91.97
Tl1908_A		-0.8290	ug/L	0.3398	40.99	-3.407
V_2924_A		0.6333	ug/L	0.3185	50.29	6.325
Zn2062_A		5.706	ug/L	0.02292	0.4017	27.73
Y_3600_R		18,516	Cts/S	53.404	0.28842	18,516
Y_2243_A		12,766	Cts/S	27.990	0.21926	12,766
Y_3600_A		187,490	Cts/S	261.89	0.13969	187,490

SO8173-003L

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:23:56PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8173-003L

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:23:56PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.049	ug/L	0.1564	7.635	-32.33
Al3961_R		173.1	ug/L	64.78	37.43	33.73
As1891_A		15.65	ug/L	0.1181	0.7549	-3.655
B_2089_A		216.8	ug/L	0.5411	0.2496	87.75
Ba4554_R		106.1	ug/L	2.637	2.486	1,312
Be3130_R		0.2726	ug/L	0.2828	103.8	-0.6725
Ca3158_R		42,580	ug/L	875.9	2.057	11,390
Cd2265_A		-0.03120	ug/L	0.3081	987.5	19.87
Co2286_A		17.17	ug/L	1.012	5.895	22.81
Cr2677_A		0.4471	ug/L	0.3259	72.90	2.308
Cu3273_A		-1.735	ug/L	2.367	136.4	-43.61
Fe2599_R		39,260	ug/L	1,138	2.899	16,490
K_7664_R		9,753	ug/L	203.8	2.090	1,047
Li6707_R		5.165	ug/L	7.457	144.4	29.22
Mg2025_A		6,723	ug/L	20.62	0.3068	654.6
Mn2576_R		1,268	ug/L	32.72	2.580	2,733
Mo2020_A		0.01788	ug/L	0.7496	4,193	0.6641
Na5895_R		14,500	ug/L	296.9	2.047	5,281
Ni2316_A		-1.830	ug/L	0.05818	3.179	-2.731
Pb2203_A		-0.4687	ug/L	0.3030	64.66	-1.559
Sb2068_A		-4.086	ug/L	1.134	27.76	0.6948
Se1960_A		0.8693	ug/L	0.1983	22.81	4.444
Si2516_R		5,146	ug/L	67.26	1.307	496.4
Sn1899_A		2.075	ug/L	1.614	77.77	1.696
Sr4215_R		377.3	ug/L	10.91	2.892	5,300
Ti3349_A		0.8205	ug/L	0.9570	116.6	4.549
Tl1908_A		-2.904	ug/L	0.5359	18.46	-2.396
V_2924_A		1.044	ug/L	1.398	133.9	-3.542
Zn2062_A		6.716	ug/L	0.4237	6.309	7.597
Y_3600_R		18,669	Cts/S	247.49	1.3257	18,669
Y_2243_A		13,091	Cts/S	75.018	0.57303	13,091
Y_3600_A		191,190	Cts/S	246.91	0.12915	191,190

SO8173-003A

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:28:17PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		498.6	ug/L	1.129	0.2265	12,080
Al3961_R		12,150	ug/L	116.6	0.9596	11,670
As1891_A		528.0	ug/L	0.3225	0.06108	266.1
B_2089_A		700.9	ug/L	2.216	0.3162	1,301
Ba4554_R		610.1	ug/L	1.912	0.3133	37,430
Be3130_R		505.6	ug/L	2.319	0.4587	45,340
Ca3158_R	W	47,190	ug/L	351.9	0.7457	62,410
Cd2265_A		509.3	ug/L	1.702	0.3341	9,373
Co2286_A		544.7	ug/L	0.05635	0.01034	2,789
Cr2677_A		518.7	ug/L	1.842	0.3552	7,813
Cu3273_A		493.1	ug/L	1.600	0.3245	6,303
Fe2599_R	W	43,880	ug/L	196.6	0.4481	90,930
K_7664_R		19,880	ug/L	111.3	0.5601	10,960
Li6707_R		507.2	ug/L	4.656	0.9181	4,777
Mg2025_A		11,680	ug/L	10.71	0.09172	5,629
Mn2576_R	W	1,753	ug/L	15.39	0.8783	18,670
Mo2020_A		529.9	ug/L	1.116	0.2106	2,270
Na5895_R		19,780	ug/L	100.7	0.5093	35,380
Ni2316_A		515.4	ug/L	0.5779	0.1121	1,123

SO8173-003A

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:28:17PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		518.7	ug/L	1.741	0.3356	741.9
Sb2068_A		524.6	ug/L	0.2338	0.04456	368.3
Se1960_A		521.8	ug/L	0.3188	0.06110	211.2
Si2516_R		5,359	ug/L	23.69	0.4420	2,419
Sn1899_A		506.8	ug/L	3.934	0.7761	352.3
Sr4215_R		874.0	ug/L	3.496	0.4000	61,000
Ti3349_A		523.7	ug/L	1.116	0.2131	16,460
Tl1908_A		529.9	ug/L	1.871	0.3532	426.7
V_2924_A		534.5	ug/L	0.2169	0.04059	7,201
Zn2062_A		525.8	ug/L	1.983	0.3771	2,431
Y_3600_R		18,424	Cts/S	78.383	0.42544	18,424
Y_2243_A		12,679	Cts/S	39.308	0.31002	12,679
Y_3600_A		185,520	Cts/S	379.45	0.20453	185,520

SO8173-003P

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:32:25PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		53.79	ug/L	0.7459	1.387	1,126
Al3961_R		2,375	ug/L	79.43	3.344	2,269
As1891_A		131.8	ug/L	2.717	2.062	59.75
B_2089_A		774.7	ug/L	10.44	1.347	1,402
Ba4554_R	W	2,296	ug/L	68.60	2.988	138,100
Be3130_R		53.63	ug/L	1.703	3.176	4,711
Ca3158_R	W	55,850	ug/L	2,084	3.732	72,420
Cd2265_A		265.0	ug/L	4.894	1.847	4,887
Co2286_A		580.6	ug/L	9.168	1.579	2,937
Cr2677_A		217.6	ug/L	4.102	1.885	3,273
Cu3273_A		260.3	ug/L	4.669	1.794	3,317
Fe2599_R	W	49,850	ug/L	1,674	3.357	101,300
K_7664_R		23,190	ug/L	862.7	3.720	12,540
Li6707_R		529.9	ug/L	13.60	2.566	4,893
Mg2025_A		12,740	ug/L	217.6	1.708	6,064
Mn2576_R	W	2,149	ug/L	78.76	3.664	22,450
Mo2020_A		113.6	ug/L	1.960	1.726	480.8
Na5895_R	W	26,230	ug/L	941.2	3.589	45,980
Ni2316_A		541.9	ug/L	9.573	1.767	1,159
Pb2203_A		108.8	ug/L	1.867	1.716	152.7
Sb2068_A		110.6	ug/L	1.158	1.047	75.40
Se1960_A		110.0	ug/L	3.483	3.167	48.38
Si2516_R		7,627	ug/L	261.5	3.429	3,361
Sn1899_A		538.6	ug/L	9.575	1.778	369.9
Sr4215_R	W	1,002	ug/L	27.24	2.720	68,570
Ti3349_A		550.7	ug/L	9.870	1.792	17,240
Tl1908_A		108.2	ug/L	2.139	1.976	84.58
V_2924_A		559.5	ug/L	9.712	1.736	7,556
Zn2062_A		557.2	ug/L	9.583	1.720	2,547
Y_3600_R		18,074	Cts/S	456.05	2.5233	18,074
Y_2243_A		12,529	Cts/S	163.21	1.3026	12,529
Y_3600_A		184,880	Cts/S	2,199.5	1.1897	184,880

SO8173-003S

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:36:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8173-003S

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:36:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		53.46	ug/L	0.2677	0.5008	1,121
Al3961_R		2,266	ug/L	41.19	1.818	2,254
As1891_A		130.0	ug/L	1.025	0.7883	59.09
B_2089_A		771.1	ug/L	2.512	0.3258	1,397
Ba4554_R	W	2,191	ug/L	23.65	1.080	137,300
Be3130_R		51.60	ug/L	0.5694	1.103	4,721
Ca3158_R	W	52,540	ug/L	626.1	1.192	70,960
Cd2265_A		260.5	ug/L	0.7983	0.3065	4,804
Co2286_A		575.7	ug/L	2.737	0.4754	2,915
Cr2677_A		220.2	ug/L	0.1482	0.06727	3,294
Cu3273_A		259.4	ug/L	0.9617	0.3707	3,287
Fe2599_R	W	47,270	ug/L	423.3	0.8954	100,000
K_7664_R		21,880	ug/L	195.1	0.8914	12,320
Li6707_R		512.0	ug/L	5.729	1.119	4,925
Mg2025_A		12,540	ug/L	50.33	0.4013	5,977
Mn2576_R	W	2,020	ug/L	15.37	0.7608	21,980
Mo2020_A		112.7	ug/L	0.4780	0.4241	477.6
Na5895_R		24,680	ug/L	305.0	1.236	45,070
Ni2316_A		538.1	ug/L	1.510	0.2806	1,153
Pb2203_A		107.0	ug/L	0.07509	0.07017	150.3
Sb2068_A		108.8	ug/L	1.442	1.325	74.21
Se1960_A		108.2	ug/L	0.6596	0.6099	47.64
Si2516_R		7,217	ug/L	120.1	1.664	3,314
Sn1899_A		531.8	ug/L	0.3102	0.05833	365.6
Sr4215_R		955.3	ug/L	10.22	1.070	68,100
Ti3349_A		552.4	ug/L	1.943	0.3517	17,200
Tl1908_A		106.1	ug/L	1.565	1.476	83.03
V_2924_A		568.1	ug/L	0.5551	0.09771	7,633
Zn2062_A		549.1	ug/L	1.672	0.3044	2,513
Y_3600_R		18,819	Cts/S	302.07	1.6051	18,819
Y_2243_A		12,541	Cts/S	45.203	0.36045	12,541
Y_3600_A		183,910	Cts/S	98.561	0.053592	183,910

SO8173-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:40:49PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.763	ug/L	0.03855	2.187	-126.0
Al3961_R		29.74	ug/L	3.335	11.22	63.39
As1891_A		16.32	ug/L	0.6170	3.781	0.8622
B_2089_A		254.7	ug/L	0.3513	0.1380	466.4
Ba4554_R		126.9	ug/L	2.008	1.583	7,783
Be3130_R		0.02642	ug/L	0.06011	227.5	-3.256
Ca3158_R	W	51,500	ug/L	788.2	1.531	68,140
Cd2265_A		-0.3157	ug/L	0.07656	24.25	110.9
Co2286_A		21.60	ug/L	0.1452	0.6725	115.0
Cr2677_A		-0.3849	ug/L	0.03936	10.23	2.266
Cu3273_A		-4.051	ug/L	0.2410	5.949	-57.60
Fe2599_R	W	46,370	ug/L	596.5	1.286	96,140
K_7664_R		11,950	ug/L	181.3	1.518	6,570
Li6707_R		1.469	ug/L	0.4408	30.02	33.01
Mg2025_A		7,506	ug/L	24.17	0.3221	3,570
Mn2576_R	W	1,541	ug/L	21.62	1.403	16,420
Mo2020_A		0.09539	ug/L	0.07468	78.29	0.9202
Na5895_R		17,580	ug/L	318.6	1.812	31,460
Ni2316_A		0.04008	ug/L	0.5438	1,357	-6.873

SO8173-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:40:49PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.150	ug/L	0.2406	20.92	0.2041
Sb2068_A		0.5849	ug/L	0.2893	49.46	2.588
Se1960_A		1.194	ug/L	0.8479	71.03	5.839
Si2516_R		6,157	ug/L	105.3	1.711	2,772
Sn1899_A		1.440	ug/L	0.1544	10.72	2.339
Sr4215_R		458.7	ug/L	5.822	1.269	32,010
Ti3349_A		1.488	ug/L	0.2696	18.12	46.25
Tl1908_A		-0.8534	ug/L	1.062	124.4	-3.599
V_2924_A		0.5280	ug/L	0.07262	13.75	5.515
Zn2062_A		6.802	ug/L	0.1631	2.397	32.43
Y_3600_R		18,436	Cts/S	291.11	1.5791	18,436
Y_2243_A		12,608	Cts/S	23.832	0.18902	12,608
Y_3600_A		186,420	Cts/S	834.32	0.44755	186,420

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:45:05PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		517.1	ug/L	0.3596	0.06954	12,920
Al3961_R		12,970	ug/L	275.7	2.126	12,540
As1891_A		526.7	ug/L	0.7438	0.1412	274.3
B_2089_A		510.5	ug/L	1.482	0.2903	979.1
Ba4554_R		515.0	ug/L	8.796	1.708	31,890
Be3130_R		506.3	ug/L	7.244	1.431	45,840
Ca3158_R		13,120	ug/L	215.7	1.644	17,510
Cd2265_A		518.9	ug/L	1.248	0.2405	9,715
Co2286_A	W	531.3	ug/L	1.845	0.3474	2,790
Cr2677_A	W	530.8	ug/L	2.023	0.3812	8,170
Cu3273_A		492.0	ug/L	2.711	0.5510	6,405
Fe2599_R		13,130	ug/L	211.3	1.609	27,480
K_7664_R		12,950	ug/L	220.6	1.703	7,192
Li6707_R		507.8	ug/L	9.215	1.815	4,828
Mg2025_A	W	13,410	ug/L	31.34	0.2337	6,625
Mn2576_R	W	529.8	ug/L	9.060	1.710	5,695
Mo2020_A		521.9	ug/L	2.279	0.4367	2,293
Na5895_R		12,690	ug/L	237.0	1.868	22,910
Ni2316_A		518.7	ug/L	2.588	0.4989	1,163
Pb2203_A	W	528.4	ug/L	2.986	0.5650	775.4
Sb2068_A	W	530.1	ug/L	2.235	0.4217	381.0
Se1960_A		523.8	ug/L	1.889	0.3606	216.4
Si2516_R		13,070	ug/L	138.7	1.061	5,909
Sn1899_A		518.1	ug/L	0.1857	0.03585	369.4
Sr4215_R		509.6	ug/L	8.672	1.702	35,890
Ti3349_A		514.4	ug/L	1.998	0.3883	16,540
Tl1908_A	W	546.2	ug/L	2.651	0.4854	452.4
V_2924_A	W	535.7	ug/L	0.5204	0.09714	7,377
Zn2062_A		526.9	ug/L	1.664	0.3158	2,499
Y_3600_R		18,603	Cts/S	158.56	0.85233	18,603
Y_2243_A		13,007	Cts/S	30.484	0.23436	13,007
Y_3600_A		189,720	Cts/S	513.04	0.27041	189,720

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:49:12PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:49:12PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2272	ug/L	0.4622	203.5	-10.34
Al3961_R		13.20	ug/L	8.103	61.40	5.770
As1891_A		0.4884	ug/L	0.3139	64.26	-4.559
B_2089_A		3.376	ug/L	0.1668	4.942	12.74
Ba4554_R		0.3465	ug/L	0.1226	35.38	15.18
Be3130_R		0.1660	ug/L	0.07387	44.51	9.447
Ca3158_R		4.876	ug/L	2.253	46.21	-11.72
Cd2265_A		0.1283	ug/L	0.007297	5.688	1.806
Co2286_A		0.2394	ug/L	0.08502	35.52	5.806
Cr2677_A		0.07078	ug/L	0.03776	53.35	0.5320
Cu3273_A		-0.1055	ug/L	0.3003	284.5	-47.57
Fe2599_R		7.967	ug/L	0.5646	7.087	25.02
K_7664_R		62.38	ug/L	49.83	79.87	-11.91
Li6707_R		-0.1808	ug/L	0.02645	14.63	17.59
Mg2025_A		1.153	ug/L	0.6944	60.24	-10.88
Mn2576_R		0.3155	ug/L	0.2643	83.77	-0.1836
Mo2020_A		0.4153	ug/L	0.2263	54.48	2.510
Na5895_R		0.2067	ug/L	1.902	920.3	30.00
Ni2316_A		-0.2089	ug/L	0.5370	257.0	-1.289
Pb2203_A		-0.09855	ug/L	0.8268	838.9	-1.549
Sb2068_A		-0.5429	ug/L	0.07384	13.60	0.6905
Se1960_A		0.2528	ug/L	0.2421	95.78	4.233
Si2516_R		-0.009990	ug/L	21.41	214,300	32.44
Sn1899_A		0.7985	ug/L	0.3764	47.13	1.971
Sr4215_R		-0.07153	ug/L	0.08364	116.9	-42.95
Ti3349_A		0.6388	ug/L	0.09472	14.83	20.08
Tl1908_A		0.1219	ug/L	0.4220	346.1	-1.589
V_2924_A		0.4940	ug/L	0.01085	2.195	-0.5846
Zn2062_A		0.4760	ug/L	0.004839	1.017	3.457
Y_3600_R		18,476	Cts/S	378.41	2.0481	18,476
Y_2243_A		13,093	Cts/S	16.327	0.12469	13,093
Y_3600_A		192,610	Cts/S	356.80	0.18524	192,610

SO8173-004L

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:53:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.782	ug/L	0.8039	45.11	-38.94
Al3961_R		70.14	ug/L	63.61	90.69	15.15
As1891_A		15.98	ug/L	2.574	16.10	-3.698
B_2089_A		265.9	ug/L	1.899	0.7141	105.6
Ba4554_R		127.2	ug/L	2.893	2.274	1,562
Be3130_R		0.4225	ug/L	0.4069	96.30	2.081
Ca3158_R		52,400	ug/L	540.6	1.032	13,910
Cd2265_A		-0.1021	ug/L	0.2159	211.4	23.46
Co2286_A		22.42	ug/L	0.6916	3.085	28.21
Cr2677_A		0.9946	ug/L	0.1961	19.72	4.314
Cu3273_A		-3.620	ug/L	0.09719	2.685	-47.34
Fe2599_R		46,870	ug/L	824.8	1.760	19,520
K_7664_R		12,010	ug/L	65.26	0.5432	1,289
Li6707_R		5.633	ug/L	4.744	84.23	29.96
Mg2025_A		8,207	ug/L	45.05	0.5489	797.0
Mn2576_R		1,557	ug/L	24.79	1.593	3,327
Mo2020_A		-0.01172	ug/L	0.9907	8,456	0.6344
Na5895_R		17,810	ug/L	64.41	0.3617	6,424
Ni2316_A		-0.9581	ug/L	0.7865	82.09	-2.534

SO8173-004L

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:53:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.179	ug/L	3.742	317.4	-1.068
Sb2068_A		1.051	ug/L	2.608	248.2	1.468
Se1960_A		0.1001	ug/L	2.897	2,896	4.405
Si2516_R		6,215	ug/L	19.97	0.3213	587.7
Sn1899_A		3.461	ug/L	0.6618	19.12	1.883
Sr4215_R		461.9	ug/L	7.993	1.731	6,443
Ti3349_A		0.7673	ug/L	0.4773	62.21	4.218
Tl1908_A		-2.435	ug/L	3.568	146.5	-2.350
V_2924_A		1.186	ug/L	1.310	110.5	-3.002
Zn2062_A		8.503	ug/L	0.06974	0.8202	9.251
Y_3600_R		18,508	Cts/S	58.014	0.31345	18,508
Y_2243_A		13,016	Cts/S	101.63	0.78079	13,016
Y_3600_A		191,560	Cts/S	79.551	0.041529	191,560

SO8173-004A

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 3:57:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		498.8	ug/L	0.5141	0.1031	11,980
Al3961_R		12,090	ug/L	116.3	0.9618	11,560
As1891_A		527.8	ug/L	1.300	0.2464	265.2
B_2089_A		739.5	ug/L	0.6700	0.09060	1,370
Ba4554_R		636.3	ug/L	8.706	1.368	38,850
Be3130_R		512.3	ug/L	8.635	1.686	45,720
Ca3158_R	W	56,440	ug/L	462.1	0.8186	74,290
Cd2265_A		512.0	ug/L	0.4415	0.08623	9,431
Co2286_A		550.1	ug/L	0.1901	0.03456	2,814
Cr2677_A		520.1	ug/L	1.336	0.2568	7,782
Cu3273_A		494.1	ug/L	0.1798	0.03640	6,280
Fe2599_R	W	51,340	ug/L	759.8	1.480	105,900
K_7664_R		22,040	ug/L	152.4	0.6917	12,090
Li6707_R		513.9	ug/L	8.803	1.713	4,817
Mg2025_A		12,770	ug/L	42.85	0.3356	6,147
Mn2576_R	W	2,024	ug/L	20.90	1.033	21,450
Mo2020_A		533.6	ug/L	0.06382	0.01196	2,283
Na5895_R		23,000	ug/L	175.5	0.7628	40,940
Ni2316_A		513.6	ug/L	0.2526	0.04918	1,117
Pb2203_A		518.7	ug/L	0.4864	0.09377	741.1
Sb2068_A		524.0	ug/L	0.6299	0.1202	367.6
Se1960_A		520.3	ug/L	1.122	0.2157	210.6
Si2516_R		6,391	ug/L	78.58	1.229	2,865
Sn1899_A		507.6	ug/L	0.3667	0.07224	352.5
Sr4215_R		966.5	ug/L	14.55	1.506	67,140
Ti3349_A		524.6	ug/L	0.7214	0.1375	16,380
Tl1908_A		525.2	ug/L	0.4505	0.08577	422.3
V_2924_A		537.9	ug/L	0.6247	0.1161	7,197
Zn2062_A		529.9	ug/L	0.7924	0.1495	2,448
Y_3600_R		18,337	Cts/S	12.992	0.070850	18,337
Y_2243_A		12,665	Cts/S	46.068	0.36374	12,665
Y_3600_A		184,240	Cts/S	112.35	0.060981	184,240

SO8173-004P

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:02:01PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8173-004P

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:02:01PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		54.45	ug/L	0.3484	0.6399	1,139
Al3961_R		2,216	ug/L	4.163	0.1879	2,146
As1891_A		125.1	ug/L	1.033	0.8253	56.52
B_2089_A		771.8	ug/L	0.8854	0.1147	1,397
Ba4554_R	W	2,263	ug/L	20.33	0.8982	137,900
Be3130_R		53.41	ug/L	0.6835	1.280	4,751
Ca3158_R	W	54,470	ug/L	603.3	1.108	71,530
Cd2265_A		262.4	ug/L	0.5343	0.2036	4,837
Co2286_A		578.0	ug/L	0.8977	0.1553	2,925
Cr2677_A		222.7	ug/L	1.624	0.7292	3,318
Cu3273_A		259.0	ug/L	3.082	1.190	3,269
Fe2599_R	W	47,730	ug/L	620.7	1.301	98,190
K_7664_R		22,630	ug/L	234.1	1.034	12,390
Li6707_R		523.6	ug/L	3.050	0.5825	4,896
Mg2025_A		12,680	ug/L	22.44	0.1770	6,038
Mn2576_R	W	2,090	ug/L	19.04	0.9113	22,100
Mo2020_A		112.6	ug/L	0.6922	0.6148	476.9
Na5895_R	W	25,500	ug/L	257.4	1.009	45,270
Ni2316_A		538.8	ug/L	1.607	0.2983	1,154
Pb2203_A		107.2	ug/L	0.5473	0.5106	150.5
Sb2068_A		109.6	ug/L	0.2047	0.1868	74.71
Se1960_A		107.6	ug/L	0.8892	0.8263	47.43
Si2516_R		7,333	ug/L	102.4	1.396	3,273
Sn1899_A		532.1	ug/L	1.524	0.2865	365.6
Sr4215_R		987.8	ug/L	8.728	0.8835	68,460
Ti3349_A		546.9	ug/L	3.950	0.7222	16,970
Tl1908_A		107.3	ug/L	0.1208	0.1125	83.96
V_2924_A		573.2	ug/L	1.428	0.2492	7,671
Zn2062_A		552.9	ug/L	1.182	0.2137	2,529
Y_3600_R		18,295	Cts/S	206.90	1.1309	18,295
Y_2243_A		12,535	Cts/S	30.027	0.23954	12,535
Y_3600_A		183,200	Cts/S	362.56	0.19791	183,200

SO8173-004S

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:06:13PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		55.13	ug/L	0.1560	0.2829	1,152
Al3961_R		2,228	ug/L	27.78	1.247	2,159
As1891_A		127.4	ug/L	0.7990	0.6272	57.46
B_2089_A		780.0	ug/L	2.552	0.3272	1,406
Ba4554_R	W	2,309	ug/L	19.73	0.8543	140,900
Be3130_R		54.31	ug/L	0.4979	0.9167	4,839
Ca3158_R	W	53,930	ug/L	520.9	0.9657	70,930
Cd2265_A		268.4	ug/L	0.1179	0.04391	4,924
Co2286_A		586.5	ug/L	1.666	0.2840	2,956
Cr2677_A		225.4	ug/L	0.8248	0.3660	3,347
Cu3273_A		260.1	ug/L	1.325	0.5095	3,272
Fe2599_R	W	47,610	ug/L	411.6	0.8646	98,090
K_7664_R		22,560	ug/L	195.0	0.8644	12,370
Li6707_R		540.5	ug/L	3.632	0.6720	5,061
Mg2025_A		12,730	ug/L	21.81	0.1713	6,040
Mn2576_R	W	2,078	ug/L	21.26	1.023	22,000
Mo2020_A		114.6	ug/L	0.3271	0.2855	483.2
Na5895_R	W	25,500	ug/L	231.5	0.9079	45,350
Ni2316_A		547.0	ug/L	2.471	0.4517	1,167

SO8173-004S

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:06:13PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		110.6	ug/L	1.481	1.339	154.7
Sb2068_A		111.2	ug/L	1.526	1.372	75.45
Se1960_A		109.3	ug/L	1.098	1.004	47.90
Si2516_R		7,279	ug/L	63.16	0.8677	3,254
Sn1899_A		543.5	ug/L	1.499	0.2758	371.9
Sr4215_R	W	1,006	ug/L	8.793	0.8743	69,800
Ti3349_A		552.7	ug/L	2.417	0.4373	17,090
Tl1908_A		110.0	ug/L	0.1692	0.1538	85.78
V_2924_A		581.4	ug/L	0.3627	0.06239	7,756
Zn2062_A		562.5	ug/L	1.969	0.3500	2,562
Y_3600_R		18,320	Cts/S	17.455	0.095276	18,320
Y_2243_A		12,483	Cts/S	8.5139	0.068204	12,483
Y_3600_A		182,610	Cts/S	221.65	0.12138	182,610

SO8173-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:10:25PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.983	ug/L	0.1923	9.701	-166.7
Al3961_R		790.6	ug/L	29.95	3.788	775.4
As1891_A	W	2,278	ug/L	3.009	0.1321	1,172
B_2089_A		79.61	ug/L	0.4050	0.5088	150.8
Ba4554_R		35.33	ug/L	0.8729	2.471	2,136
Be3130_R		0.06541	ug/L	0.04406	67.36	-0.9595
Ca3158_R	W	43,660	ug/L	552.2	1.265	57,050
Cd2265_A		-0.5837	ug/L	0.1561	26.74	142.3
Co2286_A		17.60	ug/L	0.006935	0.03940	95.70
Cr2677_A		1.807	ug/L	0.2474	13.69	39.40
Cu3273_A		-3.940	ug/L	0.3368	8.548	-44.43
Fe2599_R	W	60,430	ug/L	939.9	1.555	123,700
K_7664_R		6,780	ug/L	103.1	1.521	3,662
Li6707_R		6.850	ug/L	2.622	38.27	82.36
Mg2025_A		6,598	ug/L	11.60	0.1759	3,152
Mn2576_R	W	3,276	ug/L	44.91	1.371	34,480
Mo2020_A		1.304	ug/L	0.03713	2.846	5.946
Na5895_R		15,420	ug/L	231.5	1.501	27,260
Ni2316_A		8.467	ug/L	0.3396	4.011	9.553
Pb2203_A		3.390	ug/L	0.1274	3.757	3.286
Sb2068_A		-0.4659	ug/L	0.05594	12.01	2.323
Se1960_A		0.4338	ug/L	0.1064	24.52	6.354
Si2516_R		14,480	ug/L	241.7	1.669	6,399
Sn1899_A		2.456	ug/L	0.03382	1.377	3.053
Sr4215_R		385.2	ug/L	7.929	2.058	26,540
Ti3349_A		23.64	ug/L	0.2626	1.111	741.2
Tl1908_A		-1.495	ug/L	0.5765	38.57	-5.633
V_2924_A		1.809	ug/L	0.2156	11.92	18.65
Zn2062_A		5.211	ug/L	0.01135	0.2179	25.22
Y_3600_R		18,207	Cts/S	228.38	1.2543	18,207
Y_2243_A		12,666	Cts/S	34.860	0.27521	12,666
Y_3600_A		185,400	Cts/S	295.87	0.15959	185,400

SO8173-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:14:40PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8173-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:14:40PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.064	ug/L	0.6198	30.03	-157.6
Al3961_R		96.34	ug/L	6.825	7.084	119.6
As1891_A	W	2,250	ug/L	15.10	0.6709	1,155
B_2089_A		77.99	ug/L	0.2447	0.3137	147.5
Ba4554_R		31.51	ug/L	0.3770	1.197	1,919
Be3130_R		0.004961	ug/L	0.0007030	14.16	-5.204
Ca3158_R	W	42,880	ug/L	115.7	0.2698	56,450
Cd2265_A		-0.5141	ug/L	0.06007	11.68	138.5
Co2286_A		17.10	ug/L	0.1314	0.7685	92.74
Cr2677_A		-0.2083	ug/L	0.007888	3.787	8.723
Cu3273_A		-5.267	ug/L	0.7913	15.02	-62.48
Fe2599_R	W	58,540	ug/L	387.9	0.6626	120,800
K_7664_R		6,598	ug/L	2.288	0.03468	3,589
Li6707_R		7.296	ug/L	1.093	14.98	87.31
Mg2025_A		6,453	ug/L	1.443	0.02236	3,077
Mn2576_R	W	3,214	ug/L	13.74	0.4276	34,080
Mo2020_A		0.9834	ug/L	0.04756	4.836	4.570
Na5895_R		15,120	ug/L	31.93	0.2111	26,930
Ni2316_A		6.704	ug/L	0.3073	4.584	5.956
Pb2203_A		2.338	ug/L	0.6991	29.90	1.874
Sb2068_A		-0.4220	ug/L	0.2724	64.56	2.302
Se1960_A		-0.03730	ug/L	0.8402	2,252	6.091
Si2516_R		13,280	ug/L	28.48	0.2144	5,915
Sn1899_A		1.365	ug/L	0.7087	51.93	2.294
Sr4215_R		375.8	ug/L	1.260	0.3353	26,090
Ti3349_A		3.085	ug/L	0.2266	7.347	95.86
Tl1908_A		-1.797	ug/L	0.1136	6.320	-5.799
V_2924_A		0.6309	ug/L	0.02301	3.647	2.325
Zn2062_A		3.346	ug/L	0.1372	4.100	16.58
Y_3600_R		18,341	Cts/S	92.257	0.50301	18,341
Y_2243_A		12,643	Cts/S	12.592	0.099595	12,643
Y_3600_A		184,960	Cts/S	794.68	0.42965	184,960

SO8173-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:18:57PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.274	ug/L	0.1644	7.230	-183.5
Al3961_R		211.4	ug/L	0.9060	0.4286	230.7
As1891_A	W	2,036	ug/L	9.740	0.4784	1,049
B_2089_A		77.37	ug/L	0.03699	0.04781	147.2
Ba4554_R		36.40	ug/L	0.9311	2.558	2,227
Be3130_R		0.1004	ug/L	0.07969	79.36	3.152
Ca3158_R	W	43,530	ug/L	981.9	2.256	57,560
Cd2265_A		-0.6083	ug/L	0.2921	48.02	161.0
Co2286_A		13.79	ug/L	0.1757	1.274	76.55
Cr2677_A		-0.3963	ug/L	0.07141	18.02	5.439
Cu3273_A		-5.613	ug/L	0.4150	7.395	-59.45
Fe2599_R	W	67,740	ug/L	1,967	2.904	140,400
K_7664_R		7,479	ug/L	152.0	2.033	4,093
Li6707_R		5.141	ug/L	2.529	49.19	67.53
Mg2025_A		6,670	ug/L	24.13	0.3617	3,197
Mn2576_R	W	1,767	ug/L	40.43	2.287	18,810
Mo2020_A		1.644	ug/L	0.1283	7.804	7.556
Na5895_R		19,300	ug/L	403.1	2.089	34,510
Ni2316_A		3.332	ug/L	0.09231	2.771	-2.592

SO8173-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:18:57PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.000	ug/L	0.2487	12.43	1.362
Sb2068_A		0.5806	ug/L	0.7256	125.0	3.239
Se1960_A		0.02423	ug/L	0.02760	113.9	6.051
Si2516_R		13,420	ug/L	270.8	2.018	6,002
Sn1899_A		1.740	ug/L	0.8062	46.34	2.567
Sr4215_R		427.2	ug/L	13.49	3.158	29,790
Ti3349_A		5.446	ug/L	0.08761	1.609	170.4
Tl1908_A		-1.037	ug/L	0.6199	59.80	-4.023
V_2924_A		0.3379	ug/L	0.007828	2.317	7.655
Zn2062_A		152.3	ug/L	0.5114	0.3357	707.7
Y_3600_R		18,425	Cts/S	90.310	0.49015	18,425
Y_2243_A		12,710	Cts/S	12.070	0.094961	12,710
Y_3600_A		185,550	Cts/S	1,447.0	0.77987	185,550

SO8173-008

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:23:12PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.100	ug/L	0.08265	3.936	-185.9
Al3961_R		69.66	ug/L	8.405	12.07	94.77
As1891_A	W	2,002	ug/L	3.784	0.1890	1,034
B_2089_A		75.18	ug/L	0.1735	0.2308	143.5
Ba4554_R		35.32	ug/L	0.5287	1.497	2,154
Be3130_R		0.03421	ug/L	0.05779	168.9	-2.521
Ca3158_R	W	43,420	ug/L	482.3	1.111	57,230
Cd2265_A		-0.7928	ug/L	0.2289	28.88	156.4
Co2286_A		13.37	ug/L	0.03336	0.2494	74.50
Cr2677_A		-0.7126	ug/L	0.05516	7.741	0.5750
Cu3273_A		-6.091	ug/L	0.3503	5.751	-66.01
Fe2599_R	W	67,180	ug/L	1,096	1.631	138,700
K_7664_R		7,415	ug/L	89.93	1.213	4,044
Li6707_R		4.043	ug/L	0.8156	20.17	56.96
Mg2025_A		6,513	ug/L	10.59	0.1627	3,127
Mn2576_R	W	1,747	ug/L	22.86	1.309	18,540
Mo2020_A		1.634	ug/L	0.1264	7.739	7.528
Na5895_R		19,370	ug/L	231.9	1.198	34,520
Ni2316_A		2.421	ug/L	0.09166	3.785	-4.511
Pb2203_A		1.891	ug/L	0.2663	14.09	1.228
Sb2068_A		0.5756	ug/L	1.249	217.0	3.228
Se1960_A		-0.6677	ug/L	1.295	193.9	5.768
Si2516_R		13,300	ug/L	185.8	1.397	5,928
Sn1899_A		1.320	ug/L	0.5533	41.92	2.279
Sr4215_R		425.5	ug/L	7.135	1.677	29,580
Ti3349_A		1.396	ug/L	0.1542	11.05	43.17
Tl1908_A		-0.6867	ug/L	0.7706	112.2	-3.726
V_2924_A		0.3346	ug/L	0.06459	19.30	7.527
Zn2062_A		158.1	ug/L	0.1682	0.1064	735.7
Y_3600_R		18,363	Cts/S	71.175	0.38761	18,363
Y_2243_A		12,734	Cts/S	4.4761	0.035152	12,734
Y_3600_A		185,700	Cts/S	429.37	0.23122	185,700

SO8173-008L

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:27:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8173-008L

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:27:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.818	ug/L	1.178	41.79	-47.87
Al3961_R		71.76	ug/L	23.83	33.20	14.14
As1891_A		2,010	ug/L	10.95	0.5450	209.8
B_2089_A		85.47	ug/L	1.016	1.188	38.52
Ba4554_R		36.29	ug/L	0.3269	0.9007	442.5
Be3130_R		0.07954	ug/L	0.03418	42.97	-4.106
Ca3158_R		43,960	ug/L	292.5	0.6655	11,700
Cd2265_A		-0.4285	ug/L	0.4236	98.87	33.42
Co2286_A		14.46	ug/L	0.4597	3.178	20.12
Cr2677_A		-1.129	ug/L	0.06278	5.561	-1.604
Cu3273_A		-6.022	ug/L	4.952	82.23	-49.93
Fe2599_R		67,840	ug/L	484.0	0.7135	28,320
K_7664_R		7,388	ug/L	206.9	2.801	776.8
Li6707_R		8.730	ug/L	3.278	37.55	35.86
Mg2025_A		7,133	ug/L	29.91	0.4194	696.1
Mn2576_R		1,769	ug/L	9.701	0.5483	3,791
Mo2020_A		0.5517	ug/L	0.2479	44.93	1.131
Na5895_R		19,490	ug/L	205.6	1.055	7,046
Ni2316_A		1.832	ug/L	1.894	103.4	-1.878
Pb2203_A		4.286	ug/L	0.2249	5.248	-0.1566
Sb2068_A		-1.851	ug/L	3.227	174.4	1.186
Se1960_A		-3.729	ug/L	3.007	80.65	4.250
Si2516_R		13,180	ug/L	17.71	0.1344	1,213
Sn1899_A		1.996	ug/L	0.3449	17.28	1.687
Sr4215_R		428.3	ug/L	3.738	0.8728	5,988
Ti3349_A		0.1270	ug/L	0.7688	605.5	0.07261
Tl1908_A		-5.265	ug/L	1.827	34.70	-2.889
V_2924_A		1.550	ug/L	0.8637	55.73	-0.9915
Zn2062_A		161.5	ug/L	1.007	0.6238	155.6
Y_3600_R		18,557	Cts/S	120.38	0.64869	18,557
Y_2243_A		13,107	Cts/S	53.870	0.41100	13,107
Y_3600_A		191,180	Cts/S	623.16	0.32595	191,180

SO8173-008A

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:31:47PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		501.0	ug/L	1.377	0.2749	11,980
Al3961_R		12,360	ug/L	137.1	1.110	11,770
As1891_A	W	2,491	ug/L	12.68	0.5088	1,280
B_2089_A		573.3	ug/L	2.074	0.3618	1,067
Ba4554_R		546.6	ug/L	4.886	0.8937	33,240
Be3130_R		513.0	ug/L	3.782	0.7372	45,600
Ca3158_R	W	48,500	ug/L	580.1	1.196	63,570
Cd2265_A		515.1	ug/L	1.186	0.2303	9,531
Co2286_A		547.1	ug/L	1.524	0.2785	2,797
Cr2677_A		520.3	ug/L	2.972	0.5713	7,797
Cu3273_A		496.3	ug/L	1.303	0.2626	6,332
Fe2599_R	W	71,310	ug/L	793.9	1.113	146,500
K_7664_R		17,790	ug/L	195.4	1.098	9,717
Li6707_R		513.6	ug/L	5.501	1.071	4,795
Mg2025_A		11,980	ug/L	28.20	0.2353	5,767
Mn2576_R	W	2,236	ug/L	29.83	1.334	23,600
Mo2020_A		538.3	ug/L	2.658	0.4938	2,301
Na5895_R		24,600	ug/L	301.2	1.224	43,610
Ni2316_A		522.9	ug/L	2.113	0.4041	1,134

SO8173-008A

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:31:47PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		523.1	ug/L	1.041	0.1989	746.7
Sb2068_A		525.6	ug/L	1.612	0.3066	369.0
Se1960_A		523.2	ug/L	2.665	0.5093	212.1
Si2516_R		13,200	ug/L	154.6	1.171	5,858
Sn1899_A		513.6	ug/L	0.4694	0.09140	356.3
Sr4215_R		923.1	ug/L	9.817	1.063	63,860
Ti3349_A		530.4	ug/L	1.429	0.2694	16,580
Tl1908_A		530.5	ug/L	1.161	0.2189	426.0
V_2924_A		537.7	ug/L	1.412	0.2626	7,208
Zn2062_A		682.6	ug/L	0.4351	0.06375	3,151
Y_3600_R		18,264	Cts/S	51.940	0.28439	18,264
Y_2243_A		12,655	Cts/S	6.7762	0.053545	12,655
Y_3600_A		184,470	Cts/S	128.64	0.069734	184,470

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:35:55PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		516.3	ug/L	1.344	0.2604	12,910
Al3961_R	W	13,280	ug/L	168.9	1.272	12,680
As1891_A		525.8	ug/L	1.688	0.3211	274.5
B_2089_A		509.8	ug/L	2.335	0.4581	980.3
Ba4554_R		520.4	ug/L	5.534	1.063	31,820
Be3130_R		510.7	ug/L	5.324	1.042	45,640
Ca3158_R	W	13,410	ug/L	103.8	0.7741	17,660
Cd2265_A		517.8	ug/L	1.783	0.3443	9,720
Co2286_A	W	534.3	ug/L	1.647	0.3083	2,813
Cr2677_A	W	529.0	ug/L	3.178	0.6008	8,150
Cu3273_A		495.4	ug/L	1.317	0.2659	6,456
Fe2599_R	W	13,340	ug/L	140.2	1.051	27,560
K_7664_R	W	13,190	ug/L	83.55	0.6332	7,233
Li6707_R		510.6	ug/L	3.612	0.7075	4,793
Mg2025_A	W	13,340	ug/L	39.10	0.2931	6,609
Mn2576_R	W	541.9	ug/L	6.485	1.197	5,751
Mo2020_A		523.1	ug/L	2.280	0.4359	2,305
Na5895_R		12,950	ug/L	72.53	0.5599	23,100
Ni2316_A		521.1	ug/L	1.651	0.3168	1,172
Pb2203_A		526.7	ug/L	0.5281	0.1003	774.8
Sb2068_A	W	530.2	ug/L	0.5176	0.09763	382.0
Se1960_A		523.3	ug/L	2.081	0.3975	216.8
Si2516_R		13,380	ug/L	73.06	0.5460	5,973
Sn1899_A		515.8	ug/L	2.644	0.5127	368.8
Sr4215_R		513.0	ug/L	3.889	0.7581	35,670
Ti3349_A		519.9	ug/L	3.938	0.7573	16,730
Tl1908_A	W	547.2	ug/L	1.708	0.3120	454.4
V_2924_A	W	534.0	ug/L	3.874	0.7255	7,362
Zn2062_A	W	527.7	ug/L	1.768	0.3350	2,510
Y_3600_R		18,363	Cts/S	92.565	0.50408	18,363
Y_2243_A		13,041	Cts/S	38.099	0.29215	13,041
Y_3600_A		189,910	Cts/S	1,057.3	0.55675	189,910

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:40:02PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:40:02PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1369	ug/L	0.1604	117.2	-19.66
Al3961_R		9.895	ug/L	6.528	65.97	2.672
As1891_A		-0.1371	ug/L	0.1551	113.1	-4.909
B_2089_A		2.648	ug/L	0.1041	3.931	11.42
Ba4554_R		0.3942	ug/L	0.3039	77.09	18.28
Be3130_R		0.2247	ug/L	0.02832	12.60	14.69
Ca3158_R		13.04	ug/L	2.864	21.96	-0.8712
Cd2265_A		0.1900	ug/L	0.1820	95.78	2.997
Co2286_A		0.2493	ug/L	0.2011	80.64	5.878
Cr2677_A		0.5356	ug/L	0.1405	26.24	7.789
Cu3273_A		0.1927	ug/L	0.1814	94.17	-43.55
Fe2599_R		16.90	ug/L	1.357	8.032	43.59
K_7664_R		26.67	ug/L	33.47	125.5	-31.98
Li6707_R		0.8240	ug/L	3.215	390.1	26.95
Mg2025_A		4.481	ug/L	3.981	88.83	-9.257
Mn2576_R		0.5796	ug/L	0.1458	25.15	2.617
Mo2020_A		0.6267	ug/L	0.3685	58.80	3.455
Na5895_R		-0.8176	ug/L	1.836	224.6	28.15
Ni2316_A		0.04332	ug/L	0.02060	47.55	-0.7227
Pb2203_A		0.6326	ug/L	0.1904	30.10	-0.4646
Sb2068_A		0.7101	ug/L	0.3615	50.90	1.611
Se1960_A		0.5368	ug/L	0.5062	94.30	4.362
Si2516_R		4.469	ug/L	5.956	133.3	34.36
Sn1899_A		0.1658	ug/L	0.5493	331.2	1.523
Sr4215_R		0.08114	ug/L	0.002234	2.753	-32.35
Ti3349_A		0.7620	ug/L	0.1206	15.82	24.06
Tl1908_A		0.4499	ug/L	0.07257	16.13	-1.320
V_2924_A		0.5439	ug/L	0.4492	82.59	0.09732
Zn2062_A		0.5310	ug/L	0.1295	24.38	3.728
Y_3600_R		18,493	Cts/S	153.59	0.83049	18,493
Y_2243_A		13,134	Cts/S	1.1476	0.0087380	13,134
Y_3600_A		192,370	Cts/S	567.15	0.29482	192,370

SO8173-008P

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:44:25PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		55.69	ug/L	1.194	2.145	1,102
Al3961_R		2,317	ug/L	13.83	0.5970	2,228
As1891_A	W	2,187	ug/L	5.936	0.2714	1,119
B_2089_A		607.7	ug/L	2.686	0.4420	1,110
Ba4554_R	W	2,203	ug/L	24.25	1.101	133,800
Be3130_R		53.98	ug/L	0.8540	1.582	4,785
Ca3158_R	W	47,310	ug/L	432.5	0.9142	61,910
Cd2265_A		268.3	ug/L	0.8786	0.3275	5,031
Co2286_A		579.9	ug/L	1.804	0.3111	2,955
Cr2677_A		221.9	ug/L	2.606	1.174	3,323
Cu3273_A		261.7	ug/L	4.106	1.569	3,335
Fe2599_R	W	69,660	ug/L	993.6	1.426	142,800
K_7664_R		18,710	ug/L	147.4	0.7877	10,200
Li6707_R		536.0	ug/L	6.256	1.167	4,994
Mg2025_A		11,970	ug/L	56.17	0.4693	5,741
Mn2576_R	W	2,350	ug/L	21.02	0.8947	24,760
Mo2020_A		116.6	ug/L	0.3147	0.2699	496.9
Na5895_R	W	27,990	ug/L	302.3	1.080	49,520
Ni2316_A		551.7	ug/L	0.8444	0.1531	1,186

SO8173-008P

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:44:25PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		112.0	ug/L	0.3049	0.2721	158.4
Sb2068_A		111.6	ug/L	0.6109	0.5473	77.16
Se1960_A		111.4	ug/L	0.2610	0.2342	49.88
Si2516_R		14,760	ug/L	134.5	0.9113	6,536
Sn1899_A		546.1	ug/L	3.783	0.6926	377.7
Sr4215_R		970.8	ug/L	12.62	1.300	67,050
Ti3349_A		562.3	ug/L	8.327	1.481	17,510
Tl1908_A		109.5	ug/L	0.9299	0.8493	85.99
V_2924_A		571.9	ug/L	4.771	0.8342	7,690
Zn2062_A		717.9	ug/L	1.840	0.2563	3,305
Y_3600_R		18,233	Cts/S	80.097	0.43930	18,233
Y_2243_A		12,616	Cts/S	20.225	0.16032	12,616
Y_3600_A		183,960	Cts/S	1,514.1	0.82307	183,960

SO8173-008S

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:48:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		53.79	ug/L	0.3388	0.6300	1,063
Al3961_R		2,240	ug/L	37.49	1.674	2,150
As1891_A	W	2,155	ug/L	2.908	0.1350	1,106
B_2089_A		594.4	ug/L	0.1068	0.01797	1,088
Ba4554_R	W	2,122	ug/L	1.409	0.06639	128,600
Be3130_R		51.89	ug/L	0.1697	0.3271	4,589
Ca3158_R	W	46,670	ug/L	524.1	1.123	60,940
Cd2265_A		262.8	ug/L	0.08047	0.03062	4,942
Co2286_A		564.1	ug/L	0.2586	0.04585	2,882
Cr2677_A		214.8	ug/L	1.238	0.5762	3,227
Cu3273_A		254.8	ug/L	0.5327	0.2091	3,256
Fe2599_R	W	68,320	ug/L	221.0	0.3235	139,800
K_7664_R		18,290	ug/L	154.2	0.8433	9,951
Li6707_R		515.7	ug/L	1.898	0.3681	4,796
Mg2025_A		11,750	ug/L	24.23	0.2062	5,650
Mn2576_R	W	2,309	ug/L	19.45	0.8424	24,280
Mo2020_A		113.9	ug/L	0.6177	0.5425	486.7
Na5895_R	W	27,450	ug/L	323.9	1.180	48,460
Ni2316_A		539.0	ug/L	0.1365	0.02532	1,162
Pb2203_A		108.7	ug/L	0.9241	0.8498	154.1
Sb2068_A		107.5	ug/L	0.1114	0.1036	74.55
Se1960_A		108.5	ug/L	2.041	1.882	48.80
Si2516_R		14,590	ug/L	138.9	0.9518	6,446
Sn1899_A		535.8	ug/L	1.545	0.2884	371.6
Sr4215_R		939.7	ug/L	3.657	0.3892	64,760
Ti3349_A		548.0	ug/L	1.526	0.2785	17,120
Tl1908_A		107.6	ug/L	0.7062	0.6566	84.65
V_2924_A		554.4	ug/L	5.708	1.030	7,476
Zn2062_A		704.6	ug/L	0.3783	0.05369	3,252
Y_3600_R		18,192	Cts/S	78.478	0.43138	18,192
Y_2243_A		12,650	Cts/S	23.985	0.18961	12,650
Y_3600_A		184,500	Cts/S	405.01	0.21952	184,500

SO8173-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:52:47PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8173-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:52:47PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3246	ug/L	0.1682	51.82	-29.16
Al3961_R		64.28	ug/L	10.17	15.83	85.44
As1891_A		7.088	ug/L	0.2208	3.116	-1.402
B_2089_A		229.6	ug/L	2.364	1.030	421.2
Ba4554_R		74.20	ug/L	0.8477	1.142	4,495
Be3130_R		0.03939	ug/L	0.06919	175.6	-2.044
Ca3158_R	W	39,180	ug/L	266.9	0.6814	51,210
Cd2265_A		0.01473	ug/L	0.05739	389.6	16.32
Co2286_A		4.546	ug/L	0.2376	5.227	27.61
Cr2677_A		0.5035	ug/L	0.03277	6.509	8.757
Cu3273_A		0.5552	ug/L	0.01214	2.186	-31.66
Fe2599_R		6,587	ug/L	76.68	1.164	13,500
K_7664_R		11,930	ug/L	18.91	0.1585	6,483
Li6707_R		0.9571	ug/L	0.3295	34.43	27.90
Mg2025_A		4,556	ug/L	40.52	0.8895	2,162
Mn2576_R		670.3	ug/L	2.245	0.3350	7,058
Mo2020_A		0.1838	ug/L	0.1409	76.64	1.371
Na5895_R		19,610	ug/L	79.99	0.4079	34,670
Ni2316_A		1.512	ug/L	0.2151	14.22	1.607
Pb2203_A		0.7557	ug/L	0.2667	35.30	-0.2904
Sb2068_A		0.7273	ug/L	0.6486	89.19	1.717
Se1960_A		2.711	ug/L	0.2332	8.602	5.335
Si2516_R		6,112	ug/L	32.20	0.5269	2,722
Sn1899_A		0.8246	ug/L	0.4706	57.06	1.916
Sr4215_R		325.3	ug/L	3.553	1.092	22,420
Ti3349_A		2.157	ug/L	0.09869	4.576	66.62
Tl1908_A		-1.343	ug/L	0.08327	6.201	-3.264
V_2924_A		0.8279	ug/L	0.1789	21.61	2.646
Zn2062_A		1.127	ug/L	0.04830	4.287	6.321
Y_3600_R		18,214	Cts/S	24.908	0.13676	18,214
Y_2243_A		12,613	Cts/S	74.920	0.59398	12,613
Y_3600_A		184,450	Cts/S	681.68	0.36958	184,450

SO9173-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:57:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3652	ug/L	0.05569	15.25	-25.80
Al3961_R		-5.642	ug/L	2.911	51.59	17.08
As1891_A		0.2300	ug/L	0.4075	177.2	-4.911
B_2089_A		223.1	ug/L	0.5987	0.2683	411.9
Ba4554_R		67.65	ug/L	0.4003	0.5917	4,128
Be3130_R		-0.002238	ug/L	0.07146	3,193	-5.665
Ca3158_R	W	36,220	ug/L	458.2	1.265	47,690
Cd2265_A		0.02138	ug/L	0.07207	337.1	14.36
Co2286_A		4.610	ug/L	0.01710	0.3709	28.05
Cr2677_A		0.2075	ug/L	0.02146	10.34	4.255
Cu3273_A		-0.1127	ug/L	0.1218	108.0	-41.61
Fe2599_R		5,734	ug/L	59.49	1.038	11,840
K_7664_R		11,300	ug/L	163.5	1.447	6,180
Li6707_R		2.212	ug/L	0.3448	15.59	39.83
Mg2025_A		4,324	ug/L	3.552	0.08214	2,063
Mn2576_R		645.8	ug/L	7.713	1.194	6,849
Mo2020_A		0.02887	ug/L	0.06622	229.4	0.7196
Na5895_R		19,120	ug/L	160.2	0.8381	34,050
Ni2316_A		1.622	ug/L	0.1164	7.175	1.965

SO9173-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 4:57:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.1316	ug/L	0.5840	443.6	-1.177
Sb2068_A		0.2244	ug/L	0.3528	157.3	1.349
Se1960_A		0.1892	ug/L	0.08723	46.11	4.344
Si2516_R		5,871	ug/L	59.51	1.014	2,635
Sn1899_A		0.8962	ug/L	0.09940	11.09	1.977
Sr4215_R		306.6	ug/L	2.066	0.6738	21,290
Ti3349_A		-0.5081	ug/L	0.06169	12.14	-16.91
Tl1908_A		-1.352	ug/L	0.4586	33.92	-3.267
V_2924_A		0.2463	ug/L	0.08036	32.63	-5.433
Zn2062_A		1.311	ug/L	0.07917	6.039	7.212
Y_3600_R		18,348	Cts/S	66.398	0.36188	18,348
Y_2243_A		12,684	Cts/S	13.289	0.10477	12,684
Y_3600_A		187,940	Cts/S	95.391	0.050756	187,940

SO8173-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:01:24PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.9480	ug/L	0.2391	25.22	-99.36
Al3961_R		309.4	ug/L	9.768	3.157	306.7
As1891_A	W	1,126	ug/L	3.594	0.3191	585.1
B_2089_A		72.91	ug/L	0.2577	0.3534	140.6
Ba4554_R		17.49	ug/L	0.2164	1.237	1,068
Be3130_R		0.08705	ug/L	0.09299	106.8	1.775
Ca3158_R		21,370	ug/L	116.9	0.5469	28,280
Cd2265_A		-0.2042	ug/L	0.01605	7.862	78.38
Co2286_A		7.218	ug/L	0.1519	2.104	42.61
Cr2677_A		0.4715	ug/L	0.07504	15.92	12.12
Cu3273_A		-1.954	ug/L	0.08379	4.288	-43.03
Fe2599_R	W	32,110	ug/L	130.3	0.4059	66,600
K_7664_R		5,525	ug/L	19.56	0.3540	3,014
Li6707_R		2.486	ug/L	1.504	60.50	42.67
Mg2025_A		3,144	ug/L	29.48	0.9379	1,518
Mn2576_R		681.8	ug/L	1.983	0.2909	7,262
Mo2020_A		1.349	ug/L	0.07935	5.881	6.458
Na5895_R		19,510	ug/L	26.87	0.1377	34,920
Ni2316_A		1.362	ug/L	0.3971	29.16	-2.135
Pb2203_A		1.195	ug/L	0.1715	14.35	0.2611
Sb2068_A		1.159	ug/L	0.8466	73.06	2.749
Se1960_A		0.2394	ug/L	0.9700	405.3	5.097
Si2516_R		10,090	ug/L	56.19	0.5567	4,528
Sn1899_A		1.115	ug/L	0.000005000	0.0004730	2.157
Sr4215_R		176.5	ug/L	0.8167	0.4626	12,300
Ti3349_A		9.468	ug/L	0.06362	0.6720	299.5
Tl1908_A		-1.137	ug/L	0.1523	13.39	-3.201
V_2924_A		0.4844	ug/L	0.4034	83.28	5.032
Zn2062_A		2.326	ug/L	0.03121	1.342	12.07
Y_3600_R		18,440	Cts/S	174.61	0.94692	18,440
Y_2243_A		12,851	Cts/S	129.11	1.0046	12,851
Y_3600_A		187,320	Cts/S	2,317.3	1.2371	187,320

SO8173-012

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:05:42PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8173-012

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:05:42PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.9920	ug/L	0.1251	12.61	-98.63
Al3961_R		20.85	ug/L	2.258	10.83	30.31
As1891_A	W	1,117	ug/L	4.842	0.4335	579.5
B_2089_A		72.93	ug/L	0.4640	0.6362	140.5
Ba4554_R		16.77	ug/L	0.3008	1.793	1,011
Be3130_R		0.02857	ug/L	0.001629	5.701	-2.924
Ca3158_R		21,600	ug/L	2.246	0.01040	28,210
Cd2265_A		-0.2936	ug/L	0.04356	14.84	76.76
Co2286_A		6.724	ug/L	0.1239	1.842	39.93
Cr2677_A		-0.2100	ug/L	0.1370	65.24	1.792
Cu3273_A		-2.542	ug/L	0.1269	4.989	-50.63
Fe2599_R	W	32,160	ug/L	160.4	0.4989	65,830
K_7664_R		5,531	ug/L	2.343	0.04235	2,978
Li6707_R		2.991	ug/L	0.07656	2.560	46.72
Mg2025_A		3,083	ug/L	3.086	0.1001	1,487
Mn2576_R		690.9	ug/L	0.9105	0.1318	7,262
Mo2020_A		1.222	ug/L	0.1030	8.430	5.897
Na5895_R		19,690	ug/L	94.54	0.4803	34,780
Ni2316_A		0.8634	ug/L	0.4510	52.24	-3.243
Pb2203_A		0.7500	ug/L	0.5854	78.05	-0.3467
Sb2068_A		0.2963	ug/L	1.219	411.6	2.133
Se1960_A		1.094	ug/L	1.226	112.0	5.433
Si2516_R		9,871	ug/L	27.84	0.2820	4,372
Sn1899_A		1.059	ug/L	0.4784	45.20	2.114
Sr4215_R		179.8	ug/L	0.1435	0.07984	12,370
Ti3349_A		0.1632	ug/L	0.1259	77.15	4.455
Tl1908_A		-1.479	ug/L	0.1520	10.28	-3.479
V_2924_A		0.1675	ug/L	0.1268	75.71	0.5791
Zn2062_A		1.914	ug/L	0.03031	1.584	10.13
Y_3600_R		18,200	Cts/S	1.6252	0.0089300	18,200
Y_2243_A		12,837	Cts/S	18.456	0.14377	12,837
Y_3600_A		188,030	Cts/S	1,828.4	0.97242	188,030

SO8173-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:09:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.4876	ug/L	0.3426	70.26	-18.08
Al3961_R		243.1	ug/L	0.3189	0.1312	251.1
As1891_A		9.399	ug/L	0.7497	7.976	-0.07123
B_2089_A		153.4	ug/L	0.4563	0.2975	286.5
Ba4554_R		39.34	ug/L	0.1412	0.3589	2,400
Be3130_R		0.03603	ug/L	0.03908	108.4	-2.620
Ca3158_R	W	32,250	ug/L	121.4	0.3765	42,510
Cd2265_A		0.02106	ug/L	0.02914	138.4	10.83
Co2286_A		2.335	ug/L	0.2591	11.10	16.55
Cr2677_A		0.8012	ug/L	0.02968	3.704	13.15
Cu3273_A		0.6631	ug/L	0.4871	73.47	-32.69
Fe2599_R		4,324	ug/L	1.427	0.03300	8,939
K_7664_R		7,797	ug/L	13.49	0.1730	4,256
Li6707_R		3.210	ug/L	0.05659	1.763	49.20
Mg2025_A		3,309	ug/L	8.451	0.2554	1,583
Mn2576_R		740.6	ug/L	2.332	0.3149	7,863
Mo2020_A		1.500	ug/L	0.09084	6.055	7.047
Na5895_R	W	31,060	ug/L	139.3	0.4485	55,360
Ni2316_A		2.333	ug/L	0.4000	17.14	3.740

SO8173-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:09:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.02482	ug/L	0.09233	372.0	-1.371
Sb2068_A		1.558	ug/L	0.01455	0.9341	2.264
Se1960_A		1.053	ug/L	1.156	109.7	4.696
Si2516_R		6,310	ug/L	1.405	0.02227	2,833
Sn1899_A		0.9116	ug/L	0.05801	6.364	1.997
Sr4215_R		254.6	ug/L	0.6218	0.2442	17,690
Ti3349_A		6.654	ug/L	0.1889	2.839	209.8
Tl1908_A		-0.7149	ug/L	0.9996	139.8	-2.855
V_2924_A		0.9301	ug/L	0.2039	21.92	3.047
Zn2062_A		1.396	ug/L	0.03893	2.790	7.636
Y_3600_R		18,366	Cts/S	150.43	0.81906	18,366
Y_2243_A		12,743	Cts/S	32.117	0.25203	12,743
Y_3600_A		186,910	Cts/S	18.524	0.0099100	186,910

SO8173-014

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:14:18PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.6041	ug/L	0.2110	34.93	-11.46
Al3961_R		12.07	ug/L	1.858	15.39	28.47
As1891_A		0.8785	ug/L	0.9903	112.7	-4.423
B_2089_A		152.7	ug/L	0.3065	0.2008	284.1
Ba4554_R		37.09	ug/L	0.6941	1.871	2,235
Be3130_R		0.04966	ug/L	0.007930	15.97	-1.026
Ca3158_R	W	29,760	ug/L	609.9	2.049	38,740
Cd2265_A		0.03615	ug/L	0.004291	11.87	8.295
Co2286_A		2.253	ug/L	0.04684	2.079	15.98
Cr2677_A		0.3377	ug/L	0.03965	11.74	5.956
Cu3273_A		0.1261	ug/L	0.06568	52.09	-40.48
Fe2599_R		3,240	ug/L	65.78	2.030	6,618
K_7664_R		7,856	ug/L	126.9	1.615	4,236
Li6707_R		1.252	ug/L	0.2305	18.42	30.50
Mg2025_A		3,206	ug/L	3.966	0.1237	1,529
Mn2576_R		729.9	ug/L	14.89	2.040	7,655
Mo2020_A		1.390	ug/L	0.09840	7.078	6.552
Na5895_R	W	31,280	ug/L	624.5	1.996	55,070
Ni2316_A		2.293	ug/L	0.2428	10.59	3.784
Pb2203_A		-0.5125	ug/L	0.01787	3.487	-2.105
Sb2068_A		0.9937	ug/L	1.038	104.5	1.827
Se1960_A		2.456	ug/L	0.5537	22.54	5.203
Si2516_R		6,096	ug/L	116.2	1.906	2,704
Sn1899_A		1.282	ug/L	0.5777	45.04	2.246
Sr4215_R		243.5	ug/L	4.633	1.903	16,700
Ti3349_A		-0.06704	ug/L	0.2012	300.1	-2.824
Tl1908_A		-1.593	ug/L	0.2604	16.35	-3.539
V_2924_A		0.4129	ug/L	0.3174	76.87	-4.316
Zn2062_A		1.500	ug/L	0.1429	9.526	8.096
Y_3600_R		18,141	Cts/S	107.20	0.59089	18,141
Y_2243_A		12,697	Cts/S	25.928	0.20420	12,697
Y_3600_A		187,160	Cts/S	686.31	0.36670	187,160

SO8173-015

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:18:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8173-015

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:18:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2147	ug/L	0.3815	177.7	-10.42
Al3961_R		7.653	ug/L	11.46	149.8	30.25
As1891_A		0.1435	ug/L	0.3047	212.4	-4.574
B_2089_A		225.2	ug/L	1.617	0.7182	413.6
Ba4554_R		71.36	ug/L	0.1213	0.1701	4,312
Be3130_R		0.04678	ug/L	0.05960	127.4	-1.278
Ca3158_R	W	37,130	ug/L	318.5	0.8578	48,420
Cd2265_A		0.1142	ug/L	0.01697	14.86	1.524
Co2286_A		1.088	ug/L	0.06905	6.347	9.897
Cr2677_A		0.6800	ug/L	0.05138	7.556	10.92
Cu3273_A		2.230	ug/L	0.4259	19.10	-15.99
Fe2599_R		26.07	ug/L	1.078	4.137	61.57
K_7664_R		10,670	ug/L	32.52	0.3049	5,777
Li6707_R		0.2526	ug/L	0.4825	191.0	21.32
Mg2025_A		6,112	ug/L	23.81	0.3895	2,906
Mn2576_R		944.9	ug/L	7.966	0.8431	9,928
Mo2020_A		2.597	ug/L	0.03533	1.361	11.64
Na5895_R		24,000	ug/L	185.1	0.7714	42,320
Ni2316_A		1.476	ug/L	0.08613	5.835	2.437
Pb2203_A		0.04997	ug/L	0.3599	720.2	-1.283
Sb2068_A		1.566	ug/L	1.488	95.02	2.135
Se1960_A		1.893	ug/L	1.155	60.99	4.920
Si2516_R		4,563	ug/L	32.99	0.7230	2,035
Sn1899_A		1.322	ug/L	0.6422	48.58	2.262
Sr4215_R		348.0	ug/L	0.1983	0.05698	23,930
Ti3349_A		-0.2551	ug/L	0.08410	32.97	-8.751
Tl1908_A		-1.341	ug/L	0.7300	54.44	-3.492
V_2924_A		0.4290	ug/L	0.09169	21.37	-6.107
Zn2062_A		0.6575	ug/L	0.1268	19.29	4.163
Y_3600_R		18,170	Cts/S	74.461	0.40981	18,170
Y_2243_A		12,621	Cts/S	73.139	0.57949	12,621
Y_3600_A		186,600	Cts/S	1,457.4	0.78104	186,600

SO8173-016

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:22:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1256	ug/L	0.3284	261.4	-12.55
Al3961_R		-3.410	ug/L	3.283	96.27	19.29
As1891_A		0.04874	ug/L	1.857	3,811	-4.665
B_2089_A		219.4	ug/L	0.4978	0.2269	407.1
Ba4554_R		69.97	ug/L	0.3842	0.5491	4,248
Be3130_R		-0.01724	ug/L	0.09396	545.1	-6.958
Ca3158_R	W	36,330	ug/L	334.8	0.9216	47,600
Cd2265_A		0.07965	ug/L	0.04241	53.24	0.8682
Co2286_A		0.9669	ug/L	0.001887	0.1951	9.372
Cr2677_A		0.6387	ug/L	0.04823	7.551	10.28
Cu3273_A		2.035	ug/L	0.2781	13.67	-18.52
Fe2599_R		9.592	ug/L	0.5917	6.169	28.04
K_7664_R		10,480	ug/L	116.7	1.114	5,701
Li6707_R		0.1924	ug/L	1.780	925.0	20.85
Mg2025_A		5,963	ug/L	0.8715	0.01461	2,863
Mn2576_R		923.0	ug/L	11.70	1.267	9,744
Mo2020_A		2.571	ug/L	0.01861	0.7237	11.64
Na5895_R		23,470	ug/L	285.2	1.215	41,590
Ni2316_A		1.280	ug/L	0.2049	16.01	2.035

SO8173-016

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:22:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.1023	ug/L	0.07382	72.18	-1.217
Sb2068_A		2.137	ug/L	0.08591	4.020	2.566
Se1960_A		2.038	ug/L	0.1894	9.294	5.021
Si2516_R		4,422	ug/L	31.63	0.7153	1,983
Sn1899_A		0.7063	ug/L	0.7316	103.6	1.854
Sr4215_R		341.9	ug/L	1.744	0.5101	23,620
Ti3349_A		-0.3907	ug/L	0.1886	48.27	-13.05
Tl1908_A		-1.699	ug/L	0.2131	12.54	-3.800
V_2924_A		0.3954	ug/L	0.1760	44.53	-6.473
Zn2062_A		0.9633	ug/L	0.1510	15.68	5.626
Y_3600_R		18,255	Cts/S	12.527	0.068624	18,255
Y_2243_A		12,743	Cts/S	22.585	0.17723	12,743
Y_3600_A		186,890	Cts/S	401.78	0.21498	186,890

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:27:17PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		518.7	ug/L	2.021	0.3896	12,990
Al3961_R	W	13,300	ug/L	138.2	1.039	12,790
As1891_A	W	537.9	ug/L	0.2809	0.05221	279.2
B_2089_A		513.9	ug/L	0.2579	0.05018	982.1
Ba4554_R		514.0	ug/L	2.946	0.5733	31,650
Be3130_R		503.8	ug/L	2.076	0.4120	45,350
Ca3158_R	W	13,440	ug/L	113.0	0.8408	17,830
Cd2265_A		524.4	ug/L	0.5215	0.09945	9,780
Co2286_A	W	546.9	ug/L	0.08767	0.01603	2,861
Cr2677_A	W	528.9	ug/L	3.084	0.5831	8,158
Cu3273_A		498.6	ug/L	1.251	0.2508	6,506
Fe2599_R		13,160	ug/L	98.59	0.7490	27,390
K_7664_R	W	13,310	ug/L	27.72	0.2083	7,349
Li6707_R		500.4	ug/L	0.07302	0.01459	4,731
Mg2025_A	W	13,640	ug/L	13.33	0.09770	6,717
Mn2576_R	W	544.1	ug/L	4.412	0.8110	5,816
Mo2020_A	W	532.4	ug/L	0.1587	0.02981	2,331
Na5895_R		12,930	ug/L	86.76	0.6709	23,230
Ni2316_A	W	528.6	ug/L	1.006	0.1904	1,181
Pb2203_A	W	535.1	ug/L	2.557	0.4779	782.2
Sb2068_A	W	543.7	ug/L	1.158	0.2129	389.2
Se1960_A	W	536.1	ug/L	0.8199	0.1529	220.6
Si2516_R		13,340	ug/L	102.1	0.7652	5,997
Sn1899_A		521.9	ug/L	2.108	0.4040	370.8
Sr4215_R		504.0	ug/L	1.808	0.3587	35,290
Ti3349_A		526.5	ug/L	1.310	0.2488	16,960
Tl1908_A	F	559.8	ug/L	1.012	0.1808	462.0
V_2924_A	W	538.9	ug/L	1.624	0.3013	7,437
Zn2062_A	W	536.8	ug/L	1.488	0.2772	2,537
Y_3600_R		18,495	Cts/S	54.766	0.29611	18,495
Y_2243_A		12,958	Cts/S	19.740	0.15233	12,958
Y_3600_A		190,120	Cts/S	424.87	0.22348	190,120

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:31:24PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:31:24PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1250	ug/L	0.06560	52.46	-13.05
Al3961_R		-9.988	ug/L	1.896	18.98	-16.39
As1891_A		-0.3050	ug/L	0.3813	125.0	-5.032
B_2089_A		1.904	ug/L	0.2384	12.52	10.08
Ba4554_R		0.3087	ug/L	0.06570	21.28	12.95
Be3130_R		0.1925	ug/L	0.02918	15.16	11.74
Ca3158_R		7.414	ug/L	4.539	61.22	-8.273
Cd2265_A		0.1669	ug/L	0.06436	38.56	2.559
Co2286_A		0.1523	ug/L	0.03069	20.15	5.400
Cr2677_A		-0.01089	ug/L	0.2573	2,362	-0.7500
Cu3273_A		-0.4635	ug/L	0.1663	35.87	-52.68
Fe2599_R		9.540	ug/L	0.9478	9.935	28.24
K_7664_R		8.804	ug/L	11.49	130.5	-41.95
Li6707_R		1.460	ug/L	1.083	74.18	32.94
Mg2025_A		2.871	ug/L	1.271	44.27	-10.13
Mn2576_R		0.1718	ug/L	0.3979	231.6	-1.772
Mo2020_A		0.4407	ug/L	0.07709	17.49	2.648
Na5895_R		-8.690	ug/L	4.438	51.07	13.96
Ni2316_A		0.02199	ug/L	0.1344	611.4	-0.7779
Pb2203_A		-0.2246	ug/L	0.5549	247.0	-1.750
Sb2068_A		1.171	ug/L	0.7721	65.96	1.954
Se1960_A		1.663	ug/L	0.4717	28.37	4.854
Si2516_R		10.92	ug/L	9.425	86.29	37.17
Sn1899_A		0.6225	ug/L	0.5503	88.41	1.863
Sr4215_R		-0.07196	ug/L	0.0004330	0.6012	-43.01
Ti3349_A		0.5808	ug/L	0.1712	29.48	18.31
Tl1908_A		0.2699	ug/L	0.1021	37.82	-1.480
V_2924_A		0.4292	ug/L	0.3241	75.52	-1.505
Zn2062_A		0.3641	ug/L	0.2004	55.05	2.951
Y_3600_R		18,464	Cts/S	247.73	1.3417	18,464
Y_2243_A		13,223	Cts/S	2.4015	0.018162	13,223
Y_3600_A		193,910	Cts/S	162.06	0.083577	193,910

SO8173-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:35:47PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.05603	ug/L	0.01789	31.92	-17.00
Al3961_R		9.913	ug/L	8.553	86.27	32.18
As1891_A		-0.8417	ug/L	0.009359	1.112	-5.063
B_2089_A		224.6	ug/L	1.086	0.4837	411.1
Ba4554_R		70.78	ug/L	0.8430	1.191	4,243
Be3130_R		0.009764	ug/L	0.01930	197.6	-4.504
Ca3158_R	W	37,160	ug/L	315.7	0.8498	48,070
Cd2265_A		0.07290	ug/L	0.003605	4.945	0.7707
Co2286_A		1.080	ug/L	0.02434	2.254	9.825
Cr2677_A		0.6371	ug/L	0.08284	13.00	10.23
Cu3273_A		2.009	ug/L	0.4242	21.12	-18.74
Fe2599_R		23.92	ug/L	0.05561	0.2325	56.74
K_7664_R		10,650	ug/L	54.45	0.5113	5,722
Li6707_R		2.029	ug/L	2.224	109.6	37.45
Mg2025_A		6,109	ug/L	35.17	0.5757	2,894
Mn2576_R		945.7	ug/L	7.786	0.8233	9,859
Mo2020_A		2.643	ug/L	0.001342	0.05079	11.79
Na5895_R		24,060	ug/L	142.0	0.5903	42,100
Ni2316_A		1.505	ug/L	0.1810	12.03	2.492

SO8173-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:35:47PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.09484	ug/L	0.2630	277.3	-1.214
Sb2068_A		1.897	ug/L	0.6583	34.71	2.366
Se1960_A		2.053	ug/L	0.1455	7.088	4.966
Si2516_R		4,571	ug/L	35.87	0.7848	2,023
Sn1899_A		0.3390	ug/L	0.3711	109.5	1.577
Sr4215_R		345.0	ug/L	3.565	1.033	23,540
Ti3349_A		0.06699	ug/L	0.1112	166.1	1.424
Tl1908_A		-0.9905	ug/L	0.1038	10.48	-3.201
V_2924_A		0.7836	ug/L	0.1888	24.10	-1.261
Zn2062_A		0.4951	ug/L	0.03625	7.323	3.404
Y_3600_R		18,027	Cts/S	2.4259	0.013457	18,027
Y_2243_A		12,575	Cts/S	28.374	0.22564	12,575
Y_3600_A		185,800	Cts/S	470.46	0.25321	185,800

SO8173-018

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:40:07PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2571	ug/L	0.03416	13.28	-9.340
Al3961_R		-5.554	ug/L	7.738	139.3	17.55
As1891_A		-0.2991	ug/L	0.2220	74.23	-4.822
B_2089_A		220.6	ug/L	0.07679	0.03481	407.2
Ba4554_R		69.66	ug/L	0.7173	1.030	4,213
Be3130_R		-0.01807	ug/L	0.02915	161.3	-7.006
Ca3158_R	W	36,760	ug/L	356.2	0.9689	47,990
Cd2265_A		0.07240	ug/L	0.06575	90.81	0.7239
Co2286_A		1.029	ug/L	0.03163	3.075	9.641
Cr2677_A		0.5041	ug/L	0.3192	63.32	8.304
Cu3273_A		1.907	ug/L	0.4468	23.44	-20.30
Fe2599_R		6.380	ug/L	0.5788	9.073	21.37
K_7664_R		10,590	ug/L	131.0	1.236	5,742
Li6707_R		1.444	ug/L	1.008	69.79	32.37
Mg2025_A		6,029	ug/L	11.27	0.1870	2,879
Mn2576_R		932.5	ug/L	12.10	1.298	9,808
Mo2020_A		2.762	ug/L	0.07830	2.835	12.40
Na5895_R		23,790	ug/L	265.4	1.116	42,000
Ni2316_A		1.455	ug/L	0.2429	16.70	2.406
Pb2203_A		0.06087	ug/L	0.1550	254.7	-1.270
Sb2068_A		2.312	ug/L	0.5280	22.84	2.674
Se1960_A		1.488	ug/L	0.05208	3.499	4.781
Si2516_R		4,508	ug/L	28.72	0.6371	2,014
Sn1899_A		0.7152	ug/L	0.2819	39.41	1.851
Sr4215_R		339.9	ug/L	4.713	1.387	23,390
Ti3349_A		-0.1134	ug/L	0.2529	222.9	-4.296
Tl1908_A		-1.197	ug/L	0.2916	24.36	-3.383
V_2924_A		0.6350	ug/L	0.3982	62.70	-3.265
Zn2062_A		0.8259	ug/L	0.04999	6.053	4.963
Y_3600_R		18,188	Cts/S	1.7029	0.0093630	18,188
Y_2243_A		12,678	Cts/S	14.630	0.11540	12,678
Y_3600_A		188,000	Cts/S	64.176	0.034137	188,000

SO8173-019

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:44:27PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8173-019

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:44:27PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.7010	ug/L	0.3039	43.36	-12.71
Al3961_R		170.3	ug/L	6.867	4.032	187.6
As1891_A		57.60	ug/L	0.01546	0.02685	25.36
B_2089_A		75.89	ug/L	0.3946	0.5200	146.6
Ba4554_R		23.78	ug/L	0.04354	0.1831	1,447
Be3130_R		0.04898	ug/L	0.03655	74.63	-1.378
Ca3158_R	W	39,880	ug/L	364.3	0.9135	52,510
Cd2265_A		-0.0004300	ug/L	0.02113	4,916	10.44
Co2286_A		15.88	ug/L	0.1020	0.6423	87.06
Cr2677_A		1.235	ug/L	0.2037	16.50	25.57
Cu3273_A		0.5046	ug/L	0.5275	104.5	-34.89
Fe2599_R		4,284	ug/L	49.49	1.155	8,847
K_7664_R		6,543	ug/L	9.442	0.1443	3,560
Li6707_R		6.188	ug/L	0.6725	10.87	76.95
Mg2025_A		6,223	ug/L	3.274	0.05262	3,026
Mn2576_R	W	5,310	ug/L	29.23	0.5504	56,340
Mo2020_A		-0.1247	ug/L	0.009715	7.787	-0.3522
Na5895_R		15,500	ug/L	163.5	1.055	27,610
Ni2316_A		13.94	ug/L	0.1845	1.323	29.47
Pb2203_A		0.4653	ug/L	0.2505	53.84	-0.7303
Sb2068_A		0.9662	ug/L	0.7761	80.32	1.865
Se1960_A		1.752	ug/L	0.2173	12.40	6.011
Si2516_R		7,263	ug/L	44.97	0.6193	3,252
Sn1899_A		1.140	ug/L	0.6494	56.95	2.183
Sr4215_R		326.6	ug/L	2.692	0.8242	22,670
Ti3349_A		5.336	ug/L	0.01024	0.1920	168.9
Tl1908_A		-2.145	ug/L	0.4896	22.83	-7.920
V_2924_A		1.117	ug/L	0.3563	31.89	-15.98
Zn2062_A		1.791	ug/L	0.03302	1.843	9.591
Y_3600_R		18,346	Cts/S	58.918	0.32115	18,346
Y_2243_A		12,900	Cts/S	2.5231	0.019559	12,900
Y_3600_A		187,770	Cts/S	421.17	0.22430	187,770

SO8173-020

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:48:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.6353	ug/L	0.09211	14.50	-11.30
Al3961_R		19.89	ug/L	2.563	12.89	45.09
As1891_A		24.82	ug/L	1.024	4.126	8.025
B_2089_A		78.10	ug/L	0.1950	0.2497	148.8
Ba4554_R		23.11	ug/L	0.08955	0.3875	1,389
Be3130_R		0.04022	ug/L	0.05283	131.4	-1.865
Ca3158_R	W	41,510	ug/L	332.0	0.7999	53,980
Cd2265_A		0.04905	ug/L	0.01068	21.78	8.999
Co2286_A		16.50	ug/L	0.08387	0.5084	89.09
Cr2677_A		0.6795	ug/L	0.1952	28.72	17.30
Cu3273_A		0.3243	ug/L	0.2316	71.42	-37.73
Fe2599_R		3,421	ug/L	29.21	0.8539	6,980
K_7664_R		6,654	ug/L	59.07	0.8876	3,577
Li6707_R		7.132	ug/L	0.8365	11.73	84.76
Mg2025_A		6,479	ug/L	2.166	0.03343	3,112
Mn2576_R	W	5,611	ug/L	48.87	0.8709	58,810
Mo2020_A		-0.1944	ug/L	0.06658	34.26	-0.6742
Na5895_R		15,920	ug/L	61.94	0.3892	28,000
Ni2316_A		14.14	ug/L	0.3774	2.669	29.66

SO8173-020

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:48:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.7409	ug/L	0.09124	12.32	-0.3002
Sb2068_A		0.4327	ug/L	0.3322	76.79	1.441
Se1960_A		1.601	ug/L	0.5362	33.49	5.917
Si2516_R		7,220	ug/L	46.91	0.6498	3,194
Sn1899_A		0.9545	ug/L	0.1333	13.96	2.026
Sr4215_R		333.3	ug/L	1.456	0.4367	22,860
Ti3349_A		0.6310	ug/L	0.1423	22.56	19.24
Tl1908_A		-1.892	ug/L	0.2863	15.13	-7.863
V_2924_A		1.266	ug/L	0.3599	28.42	-15.56
Zn2062_A		1.917	ug/L	0.02436	1.271	10.06
Y_3600_R		18,122	Cts/S	144.87	0.79943	18,122
Y_2243_A		12,741	Cts/S	14.707	0.11543	12,741
Y_3600_A		187,010	Cts/S	291.53	0.15589	187,010

SO8185-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:53:03PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1039	ug/L	0.09369	90.18	-20.08
Al3961_R		-28.81	ug/L	2.633	9.141	33.85
As1891_A		-0.3355	ug/L	0.9167	273.2	-4.866
B_2089_A		4.985	ug/L	0.001997	0.04006	15.20
Ba4554_R		13.82	ug/L	0.02750	0.1990	826.2
Be3130_R		0.04184	ug/L	0.03396	81.16	-1.690
Ca3158_R	W	84,950	ug/L	514.4	0.6055	110,200
Cd2265_A		0.03978	ug/L	0.05820	146.3	1.788
Co2286_A		0.2553	ug/L	0.1079	42.26	5.693
Cr2677_A		0.7798	ug/L	0.1507	19.33	11.62
Cu3273_A		1.172	ug/L	0.1267	10.81	-28.64
Fe2599_R		661.9	ug/L	9.808	1.482	1,354
K_7664_R		5,608	ug/L	30.01	0.5351	3,000
Li6707_R		7.005	ug/L	0.6485	9.257	83.33
Mg2025_A		14,880	ug/L	34.97	0.2350	7,103
Mn2576_R		355.2	ug/L	1.217	0.3427	3,714
Mo2020_A		-0.04850	ug/L	0.08376	172.7	0.4128
Na5895_R		16,200	ug/L	16.01	0.09878	28,430
Ni2316_A		1.534	ug/L	0.4013	26.17	2.439
Pb2203_A		-0.06827	ug/L	0.6730	985.8	-1.444
Sb2068_A		0.3477	ug/L	1.339	385.0	1.308
Se1960_A		3.003	ug/L	0.2466	8.211	5.256
Si2516_R		9,828	ug/L	50.36	0.5124	4,325
Sn1899_A		1.150	ug/L	0.04841	4.209	2.146
Sr4215_R	W	1,405	ug/L	14.45	1.029	96,200
Ti3349_A		-0.4873	ug/L	0.1052	21.58	-15.91
Tl1908_A		-0.8014	ug/L	0.1782	22.23	-2.575
V_2924_A		0.3773	ug/L	0.09563	25.34	-3.602
Zn2062_A		3.425	ug/L	0.1316	3.841	16.94
Y_3600_R		18,075	Cts/S	71.774	0.39709	18,075
Y_2243_A		12,640	Cts/S	61.816	0.48904	12,640
Y_3600_A		184,000	Cts/S	237.02	0.12881	184,000

SO8185-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:57:24PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8185-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 5:57:24PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1078	ug/L	0.02618	24.29	-14.41
Al3961_R		-34.64	ug/L	1.757	5.072	28.03
As1891_A		0.01373	ug/L	0.4971	3,620	-4.640
B_2089_A		4.316	ug/L	0.002941	0.06814	13.88
Ba4554_R		17.15	ug/L	0.1235	0.7198	1,018
Be3130_R		0.02855	ug/L	0.06054	212.1	-2.873
Ca3158_R	W	84,800	ug/L	397.6	0.4689	109,100
Cd2265_A		0.06167	ug/L	0.006163	9.993	1.733
Co2286_A		0.3858	ug/L	0.1466	37.99	6.306
Cr2677_A		0.4294	ug/L	0.1958	45.61	6.407
Cu3273_A		0.9854	ug/L	0.1778	18.04	-31.27
Fe2599_R		488.2	ug/L	5.833	1.195	992.2
K_7664_R		5,678	ug/L	32.53	0.5728	3,013
Li6707_R		5.961	ug/L	0.05694	0.9553	73.12
Mg2025_A		14,920	ug/L	5.390	0.03612	7,068
Mn2576_R		361.9	ug/L	3.240	0.8952	3,753
Mo2020_A		-0.1048	ug/L	0.1680	160.2	0.1689
Na5895_R		16,060	ug/L	52.13	0.3246	27,950
Ni2316_A		2.072	ug/L	0.1067	5.151	3.604
Pb2203_A		0.3101	ug/L	0.6239	201.2	-0.8965
Sb2068_A		0.4301	ug/L	0.06619	15.39	1.347
Se1960_A		1.926	ug/L	2.267	117.7	4.792
Si2516_R		9,770	ug/L	20.90	0.2140	4,264
Sn1899_A		1.271	ug/L	0.3059	24.07	2.212
Sr4215_R	W	1,406	ug/L	11.11	0.7907	95,470
Ti3349_A		-0.3911	ug/L	0.009023	2.307	-12.96
Tl1908_A		-1.222	ug/L	0.8175	66.91	-2.897
V_2924_A		0.2363	ug/L	0.04700	19.89	-5.583
Zn2062_A		3.607	ug/L	0.07142	1.980	17.64
Y_3600_R		17,925	Cts/S	195.36	1.0899	17,925
Y_2243_A		12,545	Cts/S	24.820	0.19785	12,545
Y_3600_A		184,690	Cts/S	828.68	0.44869	184,690

SO8185-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 6:01:44PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2645	ug/L	0.1327	50.18	-9.590
Al3961_R		29.76	ug/L	1.198	4.027	24.27
As1891_A		-0.5259	ug/L	0.2224	42.30	-5.112
B_2089_A		2.279	ug/L	0.3452	15.14	10.67
Ba4554_R		0.7319	ug/L	0.1090	14.89	39.55
Be3130_R		0.06204	ug/L	0.01943	31.32	0.02255
Ca3158_R		2,795	ug/L	143.5	5.133	3,726
Cd2265_A		0.03610	ug/L	0.01358	37.63	0.2120
Co2286_A		0.1108	ug/L	0.08738	78.89	5.128
Cr2677_A		0.4610	ug/L	0.1150	24.94	6.652
Cu3273_A		0.7736	ug/L	0.5804	75.03	-35.91
Fe2599_R		60.94	ug/L	2.983	4.895	136.4
K_7664_R		592.3	ug/L	18.65	3.148	284.8
Li6707_R		3.594	ug/L	0.5119	14.24	53.81
Mg2025_A		618.7	ug/L	1.888	0.3052	295.3
Mn2576_R		0.9425	ug/L	0.2652	28.14	6.683
Mo2020_A		-0.2401	ug/L	0.09825	40.93	-0.3896
Na5895_R		2,814	ug/L	161.0	5.722	5,122
Ni2316_A		-0.2829	ug/L	0.06393	22.60	-1.475

SO8185-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 6:01:44PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.9063	ug/L	0.9615	106.1	-0.06013
Sb2068_A		0.4905	ug/L	0.3402	69.35	1.445
Se1960_A		0.9026	ug/L	0.8258	91.50	4.505
Si2516_R		6,198	ug/L	341.2	5.504	2,827
Sn1899_A		0.8172	ug/L	0.09654	11.81	1.987
Sr4215_R		21.98	ug/L	1.106	5.032	1,516
Ti3349_A		-0.07326	ug/L	0.1325	180.8	-3.171
Tl1908_A		-0.7431	ug/L	1.151	154.9	-2.313
V_2924_A		0.2686	ug/L	0.4377	162.9	-3.720
Zn2062_A		0.6887	ug/L	0.01122	1.629	4.476
Y_3600_R		18,681	Cts/S	841.88	4.5066	18,681
Y_2243_A		13,110	Cts/S	32.238	0.24591	13,110
Y_3600_A		193,110	Cts/S	573.80	0.29714	193,110

SO8185-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 6:06:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.04388	ug/L	0.04799	109.4	-15.08
Al3961_R		3.514	ug/L	0.6021	17.13	-1.087
As1891_A		-1.489	ug/L	0.7358	49.40	-5.584
B_2089_A		2.157	ug/L	0.1416	6.567	10.37
Ba4554_R		0.4709	ug/L	0.06459	13.71	22.75
Be3130_R		0.1310	ug/L	0.05378	41.06	6.254
Ca3158_R		2,913	ug/L	43.30	1.486	3,819
Cd2265_A		0.07936	ug/L	0.01352	17.04	0.9434
Co2286_A		-0.05680	ug/L	0.05824	102.5	4.210
Cr2677_A		0.1568	ug/L	0.3047	194.3	1.880
Cu3273_A		0.3561	ug/L	0.4387	123.2	-41.36
Fe2599_R		32.62	ug/L	1.485	4.551	75.69
K_7664_R		652.3	ug/L	9.219	1.413	313.1
Li6707_R		5.190	ug/L	1.612	31.06	67.66
Mg2025_A		636.7	ug/L	1.814	0.2849	301.9
Mn2576_R		0.6843	ug/L	0.05446	7.958	3.904
Mo2020_A		-0.1786	ug/L	0.03732	20.89	-0.1162
Na5895_R		2,934	ug/L	50.42	1.718	5,250
Ni2316_A		-0.002375	ug/L	0.04297	1,809	-0.8328
Pb2203_A		-0.08974	ug/L	0.7081	789.1	-1.525
Sb2068_A		0.2869	ug/L	0.2130	74.25	1.288
Se1960_A		1.928	ug/L	0.8238	42.72	4.885
Si2516_R		6,466	ug/L	75.57	1.169	2,899
Sn1899_A		0.4429	ug/L	0.1971	44.50	1.706
Sr4215_R		22.89	ug/L	0.2598	1.135	1,554
Ti3349_A		-0.3792	ug/L	0.03498	9.225	-13.12
Tl1908_A		-0.7684	ug/L	0.5064	65.91	-2.317
V_2924_A		0.5514	ug/L	0.04359	7.906	0.2635
Zn2062_A		0.5835	ug/L	0.02335	4.001	3.945
Y_3600_R		18,347	Cts/S	16.738	0.091226	18,347
Y_2243_A		13,011	Cts/S	31.659	0.24332	13,011
Y_3600_A		192,410	Cts/S	70.211	0.036490	192,410

SO8185-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 6:10:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8185-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 6:10:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.446	ug/L	0.08003	5.533	-90.97
Al3961_R		117.5	ug/L	2.295	1.953	180.9
As1891_A		-2.855	ug/L	1.016	35.58	-8.225
B_2089_A		4.804	ug/L	0.01295	0.2695	14.81
Ba4554_R		32.98	ug/L	0.5024	1.523	1,983
Be3130_R		0.2753	ug/L	0.03733	13.56	18.34
Ca3158_R	W	96,840	ug/L	779.5	0.8049	125,900
Cd2265_A		-0.2900	ug/L	0.07969	27.48	79.36
Co2286_A		-0.05506	ug/L	0.03602	65.43	4.948
Cr2677_A		0.5754	ug/L	0.05309	9.226	15.28
Cu3273_A		-2.451	ug/L	0.3320	13.54	-47.33
Fe2599_R	W	33,710	ug/L	302.3	0.8968	68,660
K_7664_R		5,370	ug/L	6.566	0.1223	2,875
Li6707_R		3.055	ug/L	2.187	71.57	47.07
Mg2025_A		16,000	ug/L	2.229	0.01393	7,615
Mn2576_R	W	1,934	ug/L	19.77	1.022	20,250
Mo2020_A		-0.6503	ug/L	0.09720	14.95	-2.289
Na5895_R	W	26,750	ug/L	239.5	0.8954	47,000
Ni2316_A		-0.1391	ug/L	0.3264	234.7	-5.588
Pb2203_A		0.7512	ug/L	0.1477	19.66	-0.3536
Sb2068_A		0.4754	ug/L	0.09184	19.32	2.204
Se1960_A		0.1525	ug/L	1.434	940.7	5.218
Si2516_R		9,053	ug/L	65.58	0.7244	3,991
Sn1899_A		1.065	ug/L	0.08635	8.108	2.080
Sr4215_R	W	1,277	ug/L	14.26	1.116	87,640
Ti3349_A		9.707	ug/L	0.3785	3.899	302.4
Tl1908_A		-1.298	ug/L	0.1173	9.039	-4.334
V_2924_A		1.511	ug/L	0.08264	5.469	13.53
Zn2062_A		1.493	ug/L	0.05574	3.734	8.000
Y_3600_R		18,108	Cts/S	27.129	0.14982	18,108
Y_2243_A		12,603	Cts/S	3.0437	0.024151	12,603
Y_3600_A		184,470	Cts/S	920.09	0.49877	184,470

SO8185-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 6:14:46PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		6.078	ug/L	0.1796	2.955	-360.1
Al3961_R		120.5	ug/L	13.19	10.95	155.5
As1891_A		-1.719	ug/L	0.8601	50.04	-14.91
B_2089_A		11.67	ug/L	0.1457	1.249	27.20
Ba4554_R		106.2	ug/L	0.3729	0.3513	6,403
Be3130_R		0.08403	ug/L	0.03674	43.72	2.128
Ca3158_R	W	61,210	ug/L	30.03	0.04907	79,660
Cd2265_A		-1.088	ug/L	0.03338	3.068	358.5
Co2286_A		8.805	ug/L	0.1480	1.681	52.39
Cr2677_A		-1.290	ug/L	0.2237	17.34	14.44
Cu3273_A		-12.83	ug/L	0.1709	1.331	-82.10
Fe2599_R	W	150,100	ug/L	384.6	0.2562	306,100
K_7664_R		7,395	ug/L	5.775	0.07810	3,982
Li6707_R		3.209	ug/L	0.4139	12.90	48.55
Mg2025_A		12,630	ug/L	37.70	0.2984	6,004
Mn2576_R	W	10,310	ug/L	24.83	0.2407	108,100
Mo2020_A		0.3640	ug/L	0.3081	84.64	1.298
Na5895_R		19,020	ug/L	46.49	0.2445	33,470
Ni2316_A		2.477	ug/L	0.3565	14.39	-15.37

SO8185-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 6:14:46PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		4.102	ug/L	0.1234	3.008	4.206
Sb2068_A		1.316	ug/L	0.7081	53.82	5.625
Se1960_A		-1.710	ug/L	1.015	59.35	8.912
Si2516_R		10,510	ug/L	0.5989	0.005699	4,626
Sn1899_A		2.261	ug/L	0.3809	16.84	2.899
Sr4215_R		363.7	ug/L	0.4111	0.1130	24,960
Ti3349_A		2.167	ug/L	0.1038	4.789	67.00
Tl1908_A		-3.635	ug/L	0.5632	15.49	-13.30
V_2924_A		4.500	ug/L	0.2436	5.413	46.65
Zn2062_A		10.42	ug/L	0.001556	0.01493	48.99
Y_3600_R		18,130	Cts/S	99.000	0.54605	18,130
Y_2243_A		12,582	Cts/S	13.360	0.10618	12,582
Y_3600_A		184,640	Cts/S	287.30	0.15560	184,640

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 6:19:04PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		515.3	ug/L	0.7827	0.1519	13,010
Al3961_R	W	13,270	ug/L	146.8	1.107	12,420
As1891_A	W	534.2	ug/L	1.952	0.3655	279.4
B_2089_A		509.0	ug/L	5.173	1.016	980.8
Ba4554_R		512.7	ug/L	5.685	1.109	30,730
Be3130_R		499.0	ug/L	4.564	0.9147	43,720
Ca3158_R	W	13,440	ug/L	149.1	1.110	17,350
Cd2265_A		523.9	ug/L	3.535	0.6747	9,851
Co2286_A	W	546.4	ug/L	3.203	0.5863	2,881
Cr2677_A		526.1	ug/L	0.1176	0.02235	8,186
Cu3273_A		487.4	ug/L	0.1808	0.03709	6,414
Fe2599_R	W	13,250	ug/L	167.9	1.268	26,830
K_7664_R		13,150	ug/L	123.4	0.9386	7,067
Li6707_R		495.7	ug/L	3.323	0.6704	4,563
Mg2025_A	W	13,700	ug/L	104.2	0.7608	6,798
Mn2576_R	W	547.1	ug/L	7.627	1.394	5,693
Mo2020_A	W	530.3	ug/L	4.294	0.8097	2,340
Na5895_R		12,720	ug/L	90.83	0.7141	22,240
Ni2316_A	W	528.7	ug/L	3.547	0.6710	1,191
Pb2203_A	W	533.7	ug/L	4.140	0.7756	786.6
Sb2068_A	W	542.7	ug/L	3.228	0.5948	391.7
Se1960_A	W	533.6	ug/L	6.096	1.142	221.4
Si2516_R		13,130	ug/L	133.2	1.014	5,748
Sn1899_A		521.3	ug/L	4.873	0.9348	373.3
Sr4215_R		501.6	ug/L	5.573	1.111	34,190
Ti3349_A		520.6	ug/L	1.391	0.2671	16,920
Tl1908_A	F	560.4	ug/L	4.481	0.7996	466.2
V_2924_A	W	536.9	ug/L	1.058	0.1971	7,474
Zn2062_A	W	537.4	ug/L	4.044	0.7525	2,560
Y_3600_R		18,005	Cts/S	101.02	0.56110	18,005
Y_2243_A		13,063	Cts/S	84.354	0.64573	13,063
Y_3600_A		191,780	Cts/S	735.53	0.38354	191,780

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 6:23:11PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 6:23:11PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.01243	ug/L	0.1292	1,039	-15.97
Al3961_R		9.002	ug/L	9.941	110.4	1.896
As1891_A		0.4293	ug/L	0.4462	103.9	-4.619
B_2089_A		0.4775	ug/L	0.1561	32.70	7.352
Ba4554_R		0.3718	ug/L	0.09110	24.50	16.55
Be3130_R		0.1215	ug/L	0.03146	25.90	5.240
Ca3158_R		3.313	ug/L	2.262	68.28	-13.47
Cd2265_A		0.1391	ug/L	0.008188	5.885	2.024
Co2286_A		0.3905	ug/L	0.1339	34.28	6.644
Cr2677_A		0.1395	ug/L	0.1227	87.92	1.607
Cu3273_A		0.3925	ug/L	0.2931	74.68	-41.37
Fe2599_R		9.027	ug/L	0.09690	1.073	26.69
K_7664_R		14.65	ug/L	8.523	58.18	-37.91
Li6707_R		2.635	ug/L	1.357	51.51	43.11
Mg2025_A		2.878	ug/L	0.3457	12.01	-10.07
Mn2576_R		0.1175	ug/L	0.06785	57.74	-2.276
Mo2020_A		0.4786	ug/L	0.04080	8.526	2.806
Na5895_R		-17.03	ug/L	5.291	31.07	-1.006
Ni2316_A		-0.008589	ug/L	0.5228	6,087	-0.8407
Pb2203_A		0.5860	ug/L	0.8275	141.2	-0.5323
Sb2068_A		-0.1747	ug/L	1.450	829.9	0.9663
Se1960_A		0.8910	ug/L	0.8707	97.73	4.519
Si2516_R		5.568	ug/L	13.53	243.0	34.11
Sn1899_A		0.1386	ug/L	0.2091	150.9	1.508
Sr4215_R		-0.06745	ug/L	0.1669	247.4	-41.79
Ti3349_A		0.6930	ug/L	0.02163	3.122	22.06
Tl1908_A		0.6083	ug/L	0.6727	110.6	-1.188
V_2924_A		0.4629	ug/L	0.1231	26.59	-1.025
Zn2062_A		0.4235	ug/L	0.08802	20.78	3.224
Y_3600_R		18,127	Cts/S	403.76	2.2275	18,127
Y_2243_A		13,173	Cts/S	58.823	0.44655	13,173
Y_3600_A		194,490	Cts/S	2,997.1	1.5411	194,490

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,052
Analyst Name: EP
Acquire Date: 11/30/2021 6:27:33PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		516.9	ug/L	4.068	0.7870	12,850
Al3961_R	W	13,290	ug/L	302.0	2.273	12,380
As1891_A	W	531.2	ug/L	0.5166	0.09725	276.2
B_2089_A		508.5	ug/L	0.8719	0.1715	973.8
Ba4554_R		511.4	ug/L	9.898	1.935	30,520
Be3130_R		500.9	ug/L	9.769	1.951	43,690
Ca3158_R	W	13,410	ug/L	300.7	2.241	17,240
Cd2265_A		521.2	ug/L	0.8395	0.1611	9,740
Co2286_A	W	542.1	ug/L	1.620	0.2988	2,842
Cr2677_A		522.2	ug/L	2.561	0.4904	7,999
Cu3273_A		494.8	ug/L	4.671	0.9440	6,410
Fe2599_R		13,170	ug/L	300.1	2.280	26,540
K_7664_R	W	13,210	ug/L	220.9	1.672	7,065
Li6707_R		496.6	ug/L	9.798	1.973	4,550
Mg2025_A	W	13,530	ug/L	67.94	0.5023	6,671
Mn2576_R	W	544.3	ug/L	14.48	2.659	5,638
Mo2020_A	W	527.7	ug/L	0.7333	0.1390	2,315
Na5895_R		12,840	ug/L	235.5	1.834	22,340
Ni2316_A	W	527.5	ug/L	0.2919	0.05534	1,181

Logbooks and Supporting Documents

Katahdin Analytical Services, Inc.

Reagents and Consumables Information:

Metals Preparation Benchsheet

Method: 3010

HNO3: MSR2363 **HCL:** MSR2364 **Digestion Vessels:** MLD0260000124

1:1 HNO3: MR3208 **1:1 HCL:** MR3209

Pipet **LCS/Spiking Information:**

M11 CLPP-SPK-1 (ID/Vol): MS3369 / 0.05 mL
M31 CLPP-SPK-INT1 (ID/Vol): MW30665 / 0.5 mL
M31 CLPP-SPK-INT2 (ID/Vol): MW30631 / 0.5 mL
— — Spike (ID/Vol): — / — mL

Heat Source ID : A
Start Time: 7:01 **/Temp.** 90 °C
End Time: 14:42 **/Temp.** 90 °C
Thermometer ID/Pos: ALC30 / 1,8

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH<2
LCSWOK29ICW1	OK29ICW1	0.05	L	0.05	L	AQ	IC	JT	11/29/2021	—	✓
PBWOK29ICW1	OK29ICW1		L		L	AQ	IC	JT	11/29/2021	—	
SO8099-004	OK29ICW1		L		L	AQ	IC	JT	11/29/2021	D	
SO8118-001	OK29ICW1		L		L	AQ	IC	JT	11/29/2021	C	
SO8118-002	OK29ICW1		L		L	AQ	IC	JT	11/29/2021		
SO8152-001	OK29ICW1		L		L	AQ	IC	JT	11/29/2021		
SO8152-002	OK29ICW1		L		L	AQ	IC	JT	11/29/2021		
SO8152-003	OK29ICW1		L		L	AQ	IC	JT	11/29/2021		
SO8152-004	OK29ICW1		L		L	AQ	IC	JT	11/29/2021		
SO8152-005	OK29ICW1		L		L	AQ	IC	JT	11/29/2021		
SO8152-006	OK29ICW1		L		L	AQ	IC	JT	11/29/2021		
SO8173-001	OK29ICW1		L		L	AQ	IC	JT	11/29/2021		
SO8173-002	OK29ICW1		L		L	AQ	IC	JT	11/29/2021		
SO8173-003	OK29ICW1		L		L	AQ	IC	JT	11/29/2021	B	
SO8173-003P	OK29ICW1		L		L	AQ	IC	JT	11/29/2021		
SO8173-003S	OK29ICW1		L		L	AQ	IC	JT	11/29/2021		
SO8173-004	OK29ICW1		L		L	AQ	IC	JT	11/29/2021	I	
SO8173-004P	OK29ICW1		L		L	AQ	IC	JT	11/29/2021		
SO8173-004S	OK29ICW1		L		L	AQ	IC	JT	11/29/2021		
SO8173-005	OK29ICW1		L		L	AQ	IC	JT	11/29/2021	C	
SO8173-006	OK29ICW1		L		L	AQ	IC	JT	11/29/2021		
SO8173-007	OK29ICW1		L		L	AQ	IC	JT	11/29/2021		

REVIEWED
EQ 11/30/21
KATAHDIN ANALYTICAL
METALS SECTION

Client IDs Verified
JT 11/29/21

QA-064-Revision 5 -12/07/2018 **Digestion performed by:** JT/IM **On:** 11/29/21 **Page:** OK105 **Revision:** 00

Katahdin Analytical Services, Inc. | **Metals Preparation Benchsheet**

Reagents and Consumables Information: | **Method:** 3010

HNO3: MS1363 HCL: MS1364 Digestion Vessels: ML0076000024

1:1 HNO3: MR3208 1:1 HCL: MR3209

Pipet	LCS/Spiking Information:
M11	CLPP-SPK-1 (ID/Vol): MS2369 / 0.05 mL
M21	CLPP-SPK-INT1 (ID/Vol): MW20665 / 0.5 mL
M21	CLPP-SPK-INT2 (ID/Vol): MW20831 / 0.5 mL
—	— Spike (ID/Vol): — / — mL

Heat Source ID : A
Start Time: 13:01 /Temp. 90 °C
End Time: 14:47 /Temp. 90 °C
Thermometer ID/Pos: ALC30 / 18

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH<2
LCSWOK29ICW2	OK29ICW2	0.05	L	0.05	L	AQ	IC	JT	11/29/2021	—	✓
PBWOK29ICW2	OK29ICW2		L		L	AQ	IC	JT	11/29/2021	—	
SO8173-008	OK29ICW2		L		L	AQ	IC	JT	11/29/2021	C	
SO8173-008P	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8173-008S	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8173-009	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8173-010	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8173-011	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8173-012	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8173-013	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8173-014	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8173-015	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8173-016	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8173-017	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8173-018	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8173-019	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8173-020	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8185-001	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8185-002	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8185-003	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8185-004	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8185-005	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		
SO8185-006	OK29ICW2		L		L	AQ	IC	JT	11/29/2021		

REVIEWED
EP 11/30/21
KATAHDIN ANALYTICAL
METALS SECTION

Client IDs Verified
JT 11/29/21

QA-064-Revision 5 -12/07/2018 Digestion performed by: JT/IM On: 11/29/21 Page: OK106 Revision: 00

CONVENTIONAL AND PHYSICAL ANALYTICAL DATA

QC Summary Section

Quality Control Report

Blank Sample Summary Report

Alkalinity

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG310652	SM2320B	24-NOV-21	N/A	J 2.6 mg/L	5.0 mg/L	4.0
MBLANK	WG310668	SM2320B	27-NOV-21	N/A	J 2.7 mg/L	5.0 mg/L	4.0
MBLANK	WG311163	SM2320B	07-DEC-21	N/A	J 3.5 mg/L	5.0 mg/L	4.0

Chloride

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG311443	SW846 9056A	09-DEC-21	N/A	J 0.10 mg/L	2.0 mg/L	1.0

Nitrate As N

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG311079	SW846 9056A	23-NOV-21	N/A	J 0.048 mg/L	0.050 mg/L	0.025

Solids-Filterable Residue

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG310883	SM2540C	03-DEC-21	01-DEC-21	U 8.0 mg/L	10. mg/L	8.0
MBLANK	WG310958	SM2540C	06-DEC-21	02-DEC-21	U 8.0 mg/L	10. mg/L	8.0

Sulfate

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG311079	SW846 9056A	23-NOV-21	N/A	1.5 mg/L	1.0 mg/L	0.50
MBLANK	WG311443	SW846 9056A	09-DEC-21	N/A	J 0.55 mg/L	1.0 mg/L	0.50

Total Biochemical Oxygen Demand

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG310581	SM5210B	29-NOV-21	24-NOV-21	U 1.0 mg/L	2.0 mg/L	1.0

Quality Control Report

Laboratory Control Sample Summary Report

Alkalinity

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG310652-2	LCS	WG310652	24-NOV-21	N/A	mg/L	120	130	112	80-120	
WG310668-2	LCS	WG310668	27-NOV-21	N/A	mg/L	120	130	112	80-120	
WG310668-3	LCSD	WG310668	27-NOV-21	N/A	mg/L	120	130	110	80-120	1
WG311163-2	LCS	WG311163	07-DEC-21	N/A	mg/L	120	140	113	80-120	
WG311163-3	LCSD	WG311163	07-DEC-21	N/A	mg/L	120	130	112	80-120	1

Chloride

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG311307-2	LCS	WG311307	07-DEC-21	N/A	mg/L	3.75	3.54	94.4	90-110	
WG311443-2	LCS	WG311443	09-DEC-21	N/A	mg/L	3.75	3.47	92.5	90-110	

Nitrate as N

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG311079-2	LCS	WG311079	23-NOV-21	N/A	mg/L	0.845	* 0.752	89.0	90-110	

Solids-Filterable Residue

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG310883-19	LCS	WG310883	03-DEC-21	01-DEC-21	mg/L	750	710	95	80-120	
WG310883-20	LCSD	WG310883	03-DEC-21	01-DEC-21	mg/L	750	700	94	80-120	1
WG310958-2	LCS	WG310958	06-DEC-21	02-DEC-21	mg/L	750	700	94	80-120	
WG310958-3	LCSD	WG310958	06-DEC-21	02-DEC-21	mg/L	750	730	98	80-120	4

Sulfate

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG311079-2	LCS	WG311079	23-NOV-21	N/A	mg/L	3.75	3.42	91.2	90-110	
WG311307-2	LCS	WG311307	07-DEC-21	N/A	mg/L	3.75	3.55	94.7	90-110	
WG311443-2	LCS	WG311443	09-DEC-21	N/A	mg/L	3.75	3.44	91.7	90-110	

Total Biochemical Oxygen Demand

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG310581-2	LCS	WG310581	29-NOV-21	24-NOV-21	mg/L	198	210	107	85-115	

Quality Control Report

Duplicate Sample Summary Report

Alkalinity

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG311163-4	SO8173-17	WG311163	07-DEC-21	mg/L	150	160	3	20

Solids-Filterable Residue

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG310883-22	SO8173-3	WG310883	03-DEC-21	mg/L	230	240	4	10

Quality Control Report

Matrix Spike Sample Summary Report

Alkalinity

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG311163-5	MS	SO8173-17	WG311163	07-DEC-21	mg/L	120	150	270	111	75 - 125

Chloride

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG311443-3	MS	SO8173-15	WG311443	09-DEC-21	mg/L	7.5	28	35.	108.	90 - 110

Nitrate as N

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG311079-3	MS	SO8173-3	WG311079	23-NOV-21	mg/L	0.845	0.23	* 0.76	63.9*	90 - 110
WG311079-4	MSD	SO8173-3	WG311079	23-NOV-21	mg/L	0.845	0.23	* 0.76	64.2*	90 - 110

Total Biochemical Oxygen Demand

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG310581-3	MS	SO8173-11	WG310581	29-NOV-21	mg/L	47.52	2.7	51.	103	75 - 125

Sample Data Section

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results may not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results may not be reportable for compliance purposes.

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-1
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
SHM-10-06-EVENT #2	AQ	22-NOV-21 10:40:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	210 mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 15:54:19	N/A	N/A	
Chloride	31 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 16:05:00	N/A	N/A	
Nitrate as N	0.058 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 18:56:00	N/A	N/A	
Solids-Filterable Residue	160 mg/L	10.	5.0	8	STDM 2540C	WG310883	03-DEC-21 09:00:00	SM 2540C	01-DEC-21	
Sulfate	7.3 mg/L	1.0	0.064	0.50	SW846 9056A	WG311443	09-DEC-21 15:44:00	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-3
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4S-EVENT#2	AQ	22-NOV-21 10:25:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	250 mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 15:57:47	N/A	N/A	
Chloride	21 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 16:46:00	N/A	N/A	
Nitrate as N	0.23 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 17:53:00	N/A	N/A	
Solids-Filterable Residue	230 mg/L	10.	5.0	8	STDM 2540C	WG310883	03-DEC-21 09:00:00	SM 2540C	01-DEC-21	
Sulfate	13 mg/L	1.0	0.064	0.50	SW846 9056A	WG311443	09-DEC-21 16:25:00	N/A	N/A	

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-5
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3D-EVENT#2	AQ	22-NOV-21 12:51:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	190 mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 16:01:43	N/A	N/A	
Chloride	25 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 17:49:00	N/A	N/A	
Nitrate as N	0.060 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 21:21:00	N/A	N/A	
Solids-Filterable Residue	210 mg/L	10.	5.0	8	STDM 2540C	WG310883	03-DEC-21 09:00:00	SM 2540C	01-DEC-21	
Sulfate	21 mg/L	1.0	0.064	0.50	SW846 9056A	WG311079	23-NOV-21 21:21:00	N/A	N/A	

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-7
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4D-EVENT#2	AQ	22-NOV-21 12:50:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	210 mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 16:04:52	N/A	N/A	
Chloride	25 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 18:30:00	N/A	N/A	
Nitrate as N	J0.046 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 20:19:00	N/A	N/A	
Solids-Filterable Residue	200 mg/L	10.	5.0	8	STDM 2540C	WG310883	03-DEC-21 09:00:00	SM 2540C	01-DEC-21	
Sulfate	23 mg/L	1.0	0.064	0.50	SW846 9056A	WG311443	09-DEC-21 18:09:00	N/A	N/A	

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-9
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3S-EVENT#2	AQ	22-NOV-21 14:30:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	140 mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 16:08:02	N/A	N/A	
Chloride	26 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 18:51:00	N/A	N/A	
Nitrate as N	J0.050 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 22:03:00	N/A	N/A	
Solids-Filterable Residue	170 mg/L	10.	5.0	8	STDM 2540C	WG310883	03-DEC-21 09:00:00	SM 2540C	01-DEC-21	
Sulfate	6.4 mg/L	1.0	0.064	0.50	SW846 9056A	WG311079	23-NOV-21 22:03:00	N/A	N/A	

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-11
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2D-EVENT#2	AQ	22-NOV-21 14:55:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	87. mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 16:10:52	N/A	N/A	
Chloride	34 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 19:12:00	N/A	N/A	
Nitrate as N	0.053 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 22:24:00	N/A	N/A	
Solids-Filterable Residue	160 mg/L	10.	5.0	8	STDM 2540C	WG310958	06-DEC-21 08:40:00	SM 2540C	02-DEC-21	
Sulfate	22 mg/L	1.0	0.064	0.50	SW846 9056A	WG311079	23-NOV-21 22:24:00	N/A	N/A	
Total Biochemical Oxygen Demand	2.7 mg/L	2.0	0.23	1	SM5210B	WG310581	29-NOV-21 11:09:00	SM 5210B	24-NOV-21 0921	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-13
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2S-EVENT#2	AQ	23-NOV-21 10:47:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	110 mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 16:13:20	N/A	N/A	
Chloride	33 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 19:53:00	N/A	N/A	
Nitrate as N	0.060 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 19:17:00	N/A	N/A	
Solids-Filterable Residue	180 mg/L	10.	5.0	8	STDM 2540C	WG310958	06-DEC-21 08:40:00	SM 2540C	02-DEC-21	
Sulfate	24 mg/L	1.0	0.064	0.50	SW846 9056A	WG311443	09-DEC-21 19:32:00	N/A	N/A	
Total Biochemical Oxygen Demand	J1.5 mg/L	2.0	0.23	1	SM5210B	WG310581	29-NOV-21 11:14:00	SM 5210B	24-NOV-21 0929	

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-15
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1S-EVENT#2	AQ	23-NOV-21 11:42:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	150 mg/L	5.0	0.23	4	STDM 2320B	WG310652	24-NOV-21 16:15:56	N/A	N/A	
Chloride	28 mg/L	4.0	0.20	2.0	SW846 9056A	WG311443	09-DEC-21 20:35:00	N/A	N/A	
Nitrate as N	0.15 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 19:58:00	N/A	N/A	
Solids-Filterable Residue	200 mg/L	10.	5.0	8	STDM 2540C	WG310958	06-DEC-21 08:40:00	SM 2540C	02-DEC-21	
Sulfate	10 mg/L	1.0	0.064	0.50	SW846 9056A	WG311443	09-DEC-21 20:14:00	N/A	N/A	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG310581	29-NOV-21 11:18:00	SM 5210B	24-NOV-21 0932	

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-17
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1S-EVENT#2-DUP	AQ	23-NOV-21 11:42:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	150 mg/L	5.0	0.23	4	STDM 2320B	WG311163	07-DEC-21 11:21:40	N/A	N/A	
Chloride	28 mg/L	4.0	0.20	2.0	SW846 9056A	WG311307	08-DEC-21 06:42:00	N/A	N/A	
Nitrate as N	0.16 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 19:37:00	N/A	N/A	
Solids-Filterable Residue	130 mg/L	10.	5.0	8	STDM 2540C	WG310958	06-DEC-21 08:40:00	SM 2540C	02-DEC-21	
Sulfate	10 mg/L	1.0	0.064	0.50	SW846 9056A	WG311307	08-DEC-21 06:21:00	N/A	N/A	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG310581	29-NOV-21 11:21:00	SM 5210B	24-NOV-21 0944	

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8173-19
Report Date: 08-FEB-22
Project: Fort Devens 2021 LTM
SDG: SO8173

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1D-EVENT#2	AQ	23-NOV-21 13:03:00	23-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	130 mg/L	5.0	0.23	4	STDM 2320B	WG310668	27-NOV-21 12:25:02	N/A	N/A	
Chloride	23 mg/L	4.0	0.20	2.0	SW846 9056A	WG311307	08-DEC-21 07:23:00	N/A	N/A	
Nitrate as N	0.056 mg/L	0.050	0.017	0.025	SW846 9056A	WG311079	23-NOV-21 21:42:00	N/A	N/A	
Solids-Filterable Residue	190 mg/L	10.	5.0	8	STDM 2540C	WG310958	06-DEC-21 08:40:00	SM 2540C	02-DEC-21	
Sulfate	17 mg/L	1.0	0.064	0.50	SW846 9056A	WG311307	08-DEC-21 07:02:00	N/A	N/A	
Total Biochemical Oxygen Demand	J0.83 mg/L	2.0	0.23	1	SM5210B	WG310581	29-NOV-21 11:24:00	SM 5210B	24-NOV-21 0957	

Raw Data Section

WET CHEMISTRY BATCH REPORT
Nov 30 2021, 10:27 am
Batch: WG310581 Run ID 1: R581733 Run ID 2: NONE

Parameter: Total Biochemical Oxygen Demand
Prep Date: 24-NOV-21

Date Analyzed: 29-NOV-21
Prep Method: SM 5210B

Analyst Initials: JL
Prep Chemist: JL

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8173-11	SAMP	SM5210B	300.00mL	300.00mL	1	2.7	2.7 mg/L	NA	2	0.23	2.0		
SO8173-13	SAMP	SM5210B	300.00mL	300.00mL	1	1.46	J1.5 mg/L	NA	2	0.23	2.0		
SO8173-15	SAMP	SM5210B	300.00mL	300.00mL	1	.21	U2.0 mg/L	NA	2	0.23	2.0		
SO8173-17	SAMP	SM5210B	300.00mL	300.00mL	1	.13	U2.0 mg/L	NA	2	0.23	2.0		
SO8173-19	SAMP	SM5210B	300.00mL	300.00mL	1	.83	J0.83 mg/L	NA	2	0.23	2.0		
SO8180-1	SAMP	SM5210B	0.75000mL	300.00mL	400	3.32	1300 mg/L	NA	2	93.	800		
SO8181-1	SAMP	SM5210B	1.1670mL	300.00mL	260	~~3.497~~ 3.037	780 mg/L	NA	2	60.	510		
SO8199-1	SAMP	SM5210B	0.17500mL	300.00mL	1700	3.155	5400 mg/L	NA	2	400	3400		
SO8221-1	SAMP	SM5210B	1.5000mL	300.00mL	200	2.625	520 mg/L	NA	2	47.	400		
WG310581-1	MBLANK	SM5210B	300.00mL	300.00mL	1	.11	U1.0 mg/L	NA	2	0.23	2.0		
WG310581-2	LCS	SM5210B	6.0000mL	300.00mL	50	4.222	210 mg/L	NA	2	12.	100		107
WG310581-3	MS	SM5210B	25.000mL	300.00mL	12	4.29	51. mg/L	NA	2	2.8	24.		103

Comments:

WG310581-1	SO8173-11
WG310581-2	SO8173-11
WG310581-3	SO8173-11

Entered by: JB for JL Date: 11/30/21 Accepted by: JB Date: 11/30/21

Katahdin Analytical Serivces SO8173 Page 220 of 415

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] CBOD5 [ ]

Data Entry By: JL

R591733
WG310581

BOD5,mg/L=(DO consumed- Seed Correction Factor)* Total Volume in mL /Sample Volume in mL
DO consumed = Initial DO - Final DO
Total Volume = 300 mL
Volume of seed added to each sample including (LCSs and MS) in mL = 1

Blank: 0911 1101
LCS: 0916 1106

Sample ID	Seed Volume mL	Initial DO D1	Final DO D2	Cons. DO D1-D2	Seed Correction Factor	In Criteria?
Blank 1	0	8.11	7.82	0.29	N/A	No
Blank 2	0	8.17	8.06	0.11	N/A	Yes
Blank 3	0	8.12	7.90	0.22	N/A	No
Seed Control 1	1	8.22	7.51	0.71	0.71	No
Seed Control 2	2	8.06	7.06	1	0.5	No
Seed Control 3	4	8.07	5.83	2.24	0.56	0.56
Seed Control 4	6	8.15	4.65	3.5	0.58	0.58
			Mean Seed Correction Factor (SCF):			**0.57**

LCS Recovery Calculations

GGA Added (mL): 6 **LCS True Value (mg/L): 198**

LCS ID	Calc mg/L	% Recovery	Recovery Acceptance Limits (%): 84.6 TO 115.4
LCS 1	211.42	106.8	LCS Within Criteria ? Yes
LCS 2	205.92	104.0	LCS Within Criteria ? Yes
LCS 3	215.92	109.0	LCS Within Criteria ? Yes
Mean	211.08	106.6	LCS Within Criteria ? Yes

Matrix Spike Recovery Calculations (75-125%)
Spike Recovery=(Seed Corrected DO MS-Seed Corrected DO Sample)/(Total mg Spike)

Katahdin Sample Number	Sample Volume (mL)	Sample BOD (mg/L)	Spk. Sample BOD (mg/L)	mL GGA Spike Added	MS True Value (mg/L)	Spike Recovery (%)
8173-11	25.00	2.70	51.46	6	47.52	102.6
					#DIV/0!	#DIV/0!
					#DIV/0!	#DIV/0!

All Data From This Batch Must Be Qualified As Follows:

LCS 1
LCS 2
LCS 3
Blank 1 D11
Blank 2

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] **CBOD5** [ ]

Data Entry By: JL

Sample Analysis								
Sample ID	**Sample Volume mL**	**Initial DO mg/L *(D1)***	**Final DO mg/L *(D2)***	**DO Cons. mg/L *(D1-D2)***	**Corrected DO cons. *(D1-D2-SCF)***	**Calc. BOD mg/L**	**DO consumed in Criteria?**	**Adjusted PQL**
LCS 1	6.000	8.16	3.36	4.80	4.23	211.42	Yes	100.0
LCS 2	6.000	7.90	3.21	4.69	4.12	205.92	Yes	100.0
LCS 3	6.000	8.08	3.19	4.89	4.32	215.92	Yes	100.0
Mean LCS Result	6.000	8.047	3.253	4.793	4.222	211.083	Yes	100.0
8173-11	25.000	8.04	7.12	0.92	0.35	4.18	No	24.0
0921 1109	50.000	7.83	6.72	1.11	0.54	3.23	No	12.0
	100.000	7.36	5.74	1.62	1.05	3.15	No	6.0
0926 DRS 1113	300.000	8.24	4.97	3.27	2.70	2.70	Yes	2.0
DMP MS	25.000	8.07	3.21	4.86	4.29	51.46	Yes	24.0
DUP	100.000	8.26	6.65	1.61	1.04	3.12	No	6.0
8173-13	25.000	8.08	7.57	0.51	-0.06	-0.74	No	24.0
0929 1114	50.000	8.19	7.36	0.83	0.26	1.55	No	12.0
	100.000	8.20	7.29	0.91	0.34	1.02	No	6.0
	300.000	8.01	5.98	2.03	1.46	1.46	Yes	2.0
8173-15	25.000	8.34	7.77	0.57	0.00	-0.02	No	24.0
0932 1118	50.000	8.80	8.11	0.69	0.12	0.71	No	12.0
	100.000	8.66	7.91	0.75	0.18	0.54	No	6.0
	300.000	9.48	8.70	0.78	0.21	0.21	Yes	2.0
8173-17	25.000	7.99	7.91	0.08	-0.49	-5.90	No	24.0
0944 1121	50.000	8.69	8.26	0.43	-0.14	-0.85	No	12.0
	100.000	8.82	8.14	0.68	0.11	0.32	No	6.0
	300.000	9.55	8.85	0.70	0.13	0.13	Yes	2.0
8173-19	25.000	8.11	7.61	0.50	-0.07	-0.86	No	24.0
0957 1124	50.000	8.00	7.44	0.56	-0.01	-0.07	No	12.0
	100.000	8.16	7.36	0.80	0.23	0.69	No	6.0
	300.000	7.72	6.32	1.40	0.83	0.83	Yes	2.0
8180	0.100	8.02	6.74	1.28	0.71	2116.00	No	6000.0
1003 1128	0.250	8.11	6.21	1.90	1.33	1594.00	No	2400.0
	0.500 1.075	8.08	5.12	2.96	2.39 | 3.32	1433.00	Yes	1200.0
	1.000	7.78	2.96	4.82	4.25	1274.50	Yes	600.0
	2.000	8.14	<1	7.14	6.57	985.25	No	300.0
8181	0.100	8.17	7.14	1.03	0.46	1375.00	No	6000.0
1031 1131	0.250	8.18	6.92	1.26	0.69	826.00	No	2400.0
	0.500 1.167	8.17	6.17	2.00	1.43 | 3.497	857.00	Yes	1200.0
	1.000	8.14	5.13	3.01	2.44 | 3.037	731.50	Yes	600.0
	2.000	8.08	2.27	5.81	5.24	785.75	Yes	300.0
	5.000	8.19	<1	7.19	6.62	397.10	No	120.0
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 X **CBOD5**

Data Entry By: JL

Sample Analysis								
Sample ID	**Sample Volume mL**	**Initial DO mg/L** *(D1)*	**Final DO mg/L** *(D2)*	**DO Cons. mg/L** *(D1-D2)*	**Corrected DO cons.** *(D1-D2-SCF)*	**Calc. BOD mg/L**	**DO consumed in Criteria?**	**Adjusted PQL**
8199	0.050	8.08	6.90	1.18	0.61	3650.00	No	12000.0
1311 1136	0.100 +.175	8.06	5.82	2.24	1.67 +3.155	5005.00	Yes	6000.0
	0.250	8.14	2.93	5.21	4.64	5566.00	Yes	2400.0
	0.500	7.96	<1	6.96	6.39	3833.00	No	1200.0
	1.000	8.17	<1	7.17	6.60	1979.50	No	600.0
8221	0.100	7.80	7.40	0.40	-0.17	-515.00	No	6000.0
1505 1139	0.250	8.15	7.26	0.89	0.32	382.00	No	2400.0
	0.500	8.09	6.76	1.33	0.76	455.00	No	1200.0
	1.000 +1.5	8.14	5.93	2.21	1.64 +2.625	491.50	Yes	600.0
	2.000	8.15	3.97	4.18	3.61	541.25	Yes	300.0
	5.000	8.04	<1	7.04	6.47	388.10	No	120.0
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!
				0.00	-0.57	#DIV/0!	No	#DIV/0!

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

WG310581

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.			pH Meter Calibration	Probe ID:
Total BOD: SM5210B EPA 405.1		**PQL: 2.0 mg/L**		True Value / Lot ID	Actual Value / Accept? ± 0.05
Carbonaceous BOD: SM5210B		**PQL: 2.0 mg/L**		4.01	
Glutamic Acid Std (GGA) ID: GGA ~~1123~~ 112421	GGA Preparation:	Seed Used Source ID and Amount:		7.00	
Nitirification Inhibitor ID:	0.15g Glucose ID:	LAWPCA:	1 mL	10.01	
Phosphate Bffr Soln. ID: W20367	SWL4207	SSD: ✓	1 mL ✓	DO Meter ID: B27869	DO Probe ID: 086030MD
$H_{14}MgO_{11}S$ ID: SWL4874	0.15 g Glutamic Acid ID:	$Na_2S_2O_3$ ID:		KI Paper ID: 14-860	pH Paper ID: 6102002
Ferric Chloride Soln. ID: SWL4770	SWL4623	Starch Indicator ID:		Carboy ID: J	1:50 H_2SO_4 ID:
Calcium Chloride Soln. ID: SWL4757		Potassium Iodide Soln. ID:		Pipet IDs: W3,7,10,13	
Acid 1 ID (A1):	Acid 2 ID (A2):	Base1 ID (B1):		Base 2 ID (B2):	INC ID:

SL 1/24/21

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
Blank		0911					30m		8.11	7.82	1101	
↓		12					1019		8.17	8.06	02	
		13					50		8.12	7.90	03	
1		0913					430		8.22	7.51	1103	
2		14					mp		8.06	7.06	04	
4		15					216		8.07	5.83	04	
6		15					413		8.15	4.65	05	
CCS		0916					274P		8.16	3.36	1106	
↓		17					1610		7.90	3.21	06	
		18					BP06		8.08	3.19	07	
SO8173-11	Seres	0921	↓			N	463	25	8.04	7.12	1109	
		22					333	50	7.83	6.72	10	
		22					071	100	7.36	5.74	11	
		23					044	300	8.24	4.97	12	
	MS	0926					397	25	8.07	3.21	1113	
	Dup	27					54	100	8.26	6.65	13	

OV 11/29

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
S08173-13	Seres	0929	J			N	SR	25	8.08	7.57	1114	
	25	30					A17	50	8.19	7.36	15	
		30					024	100	8.20	7.29	16	
		31					429	300	8.01	5.98	17	
S08173-15	Seres	0932	J			N	A3	25	8.34	7.77	1118	
	15	33					BP32	50	8.80	8.11	18	
		39					058	100	8.66	7.91	19	
		43					700	300	9.48	8.70	20	
S08173-17	Seres	0944	J			N	430	25	7.99	7.91	1121	
	Dup	0944					6789	50	8.09	8.26	22	
		45					1240	100	8.82	8.14	23	
		53					423	300	9.55	8.85	23	
S08173-19	Seres	0957	J			N	384	25	8.11	7.61	1124	
	10	58					1305	50	8.00	7.44	25	
		59					311	100	8.16	7.36	26	
		1000					L12	300	7.72	6.32	27	
S08180	Inland	1003	J			N	040	.1	8.02	6.74	1128	
	Sea	03					B034	.25	8.11	6.21	28	
		04					836	.5	8.08	5.12	29	
		05					T11	1	7.78	7.96	30	
		06					02m	2	8.14	<1	30	

NOTES:

ANALYST 1	JR	DATE	11/24/21
ANALYST 2	JR	DATE	11/29/21
CHECKED BY:		DATE	11/30/21

JR 11/29/21

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.			pH Meter Calibration		Probe ID:		
Total BOD: SM5210B	EPA 405.1		**PQL: 2.0 mg/L**	True Value	Lot ID	Actual Value	Accept? ± 0.05	
Carbonaceous BOD:	SM5210B		**PQL: 2.0 mg/L**	4.01				
Glutamic Acid Std (GGA) ID: GGA	GGA Preparation:	Seed Used Source ID and Amount:		7.00				
Nitirification Inhibitor ID:	0.15g Glucose ID:	LAWPCA:	1 mL	10.01				
Phosphate Bffr Soln. ID:		SSD:	1 mL	DO Meter ID: B27869		DO Probe ID:		
$H_{14}MgO_{11}S$ ID:	0.15 g Glutamic Acid ID:	$Na_2S_2O_3$ ID:		KI Paper ID:		pH Paper ID:		
Ferric Chloride Soln. ID:		Starch Indicator ID:		Carboy ID:		1:50 H_2SO_4 ID:		
Calcium Chloride Soln. ID:		Potassium Iodide Soln. ID:		Pipet IDs:				
Acid 1 ID (A1):	Acid 2 ID (A2):	Base1 ID (B1):		Base 2 ID (B2):		INC ID:		

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
SO8181	Highliner	1013	✓			N	415	.1	8.17	7.14	1131	
		13					194	.25	8.18	6.92	32	
		14					AES	.5	8.17	6.17	33	
		14					1568	1	8.14	5.13	33	
		15					847	2	8.08	2.27	35	
		16					065	5	8.19	<1	35	
SO8199	Stonehall	1311	✓			N	6007	.05	8.08	6.90	1136	
		11					D1	.1	8.06	5.82	37	
		12					789	.25	8.14	2.93	37	
		13					136	.5	7.96	<1	37	
		14					1239	1	8.17	<1	37	
SO8221	Cape	1505	✓			N	1477	.1	7.80	7.40	1139	
	Sea	06					388	.25	8.15	7.26	40	
		07					69P	.5	8.09	6.76	40	
		08					211	1	8.14	5.93	41	
		09					3000	2	8.15	3.97	42	
		09					42R	5	8.04	<1	42	

WL-013 - Revision 10 - 09/23/2021

QAWL1033 000398

0000114

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *

11/29/21

NOTES:

ANALYST 1	DATE 11/24/21
ANALYST 2	DATE 11/29/21
CHECKED BY:	DATE 11/30/21

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

WET CHEMISTRY BATCH REPORT
Nov 26 2021, 02:47 pm
Batch: WG310652 Run ID 1: R581635 Run ID 2: NONE

Parameter: Alkalinity
Prep Date: N/A

Date Analyzed: 24-NOV-21
Prep Method: N/A

Analyst Initials: ZL
Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8152-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	45.374	45. mg/L	NA	5	0.23	5.0		
SO8152-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	115.138	120 mg/L	NA	5	0.23	5.0		
SO8152-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	73.714	74. mg/L	NA	5	0.23	5.0		
SO8152-4	SAMP	STDM 2320B	50.0mL	50.0mL	1	20.158	20. mg/L	NA	5	0.23	5.0		
SO8152-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	157.064	160 mg/L	NA	5	0.23	5.0		
SO8152-6	SAMP	STDM 2320B	50.0mL	50.0mL	1	157.398	160 mg/L	NA	5	0.23	5.0		
SO8173-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	212.281	210 mg/L	NA	5	0.23	5.0		
SO8173-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	248.877	250 mg/L	NA	5	0.23	5.0		
SO8173-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	193.555	190 mg/L	NA	5	0.23	5.0		
SO8173-7	SAMP	STDM 2320B	50.0mL	50.0mL	1	209	210 mg/L	NA	5	0.23	5.0		
SO8173-9	SAMP	STDM 2320B	50.0mL	50.0mL	1	145.422	140 mg/L	NA	5	0.23	5.0		
SO8173-11	SAMP	STDM 2320B	50.0mL	50.0mL	1	87.038	87. mg/L	NA	5	0.23	5.0		
SO8173-13	SAMP	STDM 2320B	50.0mL	50.0mL	1	108.523	110 mg/L	NA	5	0.23	5.0		
SO8173-15	SAMP	STDM 2320B	50.0mL	50.0mL	1	150.01	150 mg/L	NA	5	0.23	5.0		
WG310652-1	MBLANK	STDM 2320B	50.0mL	50.0mL	1	2.584	J2.6 mg/L	NA	5	0.23	5.0		
WG310652-2	LCS	STDM 2320B	50.0mL	50.0mL	1	134.366	130 mg/L	NA	5	0.23	5.0		112
WG310652-3	MS	STDM 2320B	50.0mL	50.0mL	1	242.848	240 mg/L	NA	5	0.23	5.0		87
WG310652-4	MSD	STDM 2320B	50.0mL	50.0mL	1	240.162	240 mg/L	NA	5	0.23	5.0	1	85

Comments:

SO8173-3	MS/MSD
WG310652-1	SO8152-1
WG310652-2	SO8152-1
WG310652-3	SO8152-6
WG310652-4	SO8152-6

Entered by: ZL Date: 11/26/21 Accepted by: [signature] Date: 11/29/21 J

Kalahin Analytical Serivces SO8173 Page 228 of 415

WG310652 RS81635

KATAHDIN ANALYTICAL SERVICES

ALKALINITY, BICARBONATE, CARBONATE, FREE CO2 - DL 25 AUTOTITRATOR

Analysis: EPA 310.1 SM2320B **Calculations:** SM 4500-CO2 D

pH Probe ID: DG111-SC	
Alkalinity Acid Reagent: W20501	**Buffer pH 4 ID:** SWL 4798
Acid Concentration: 0.02N	**Buffer pH 7 ID:** 4897
Alkalinity Check Standard: W20534 TV=125mg/L	**Buffer pH 10 ID:** 4788
Alkalinity MS: W20531 TV=120mg/L	**Pipette IDs:** W11
Sulfuric Acid Titrant ID:	

Sample ID	Run #	Volume (mL)	Sample ID	Run #	Volume (mL)	Comments - Must indicate which sample
CCV	1	50	CCV	9	50	
CCB	2		CCB	10		
LCS	3					
LCSD	4					
8152-1	1	50				
-2	2					
-3	3					
-4	4					
-5	5					
-6	6					
-6MS	7	44		ZL		
-6MSD	8			11/26/21		
CCV	9	50				
CCB	10					
8173-1	1	50				
-3	2					
-5	3					
-7	4					
-9	5					
-11	6					
-13	7					
-15	8					

Analyst: ZL	**Date:** 11/24/21
Checked By: [signature]	**Date:** 11/29/21

Start time:	11/24/2021 10:11						
Results							
No.	Comment / ID	Start time	Rx	Result	Unit	Name	RECOVERY
1/4	CCV	11/24/202	R1 =	6.834	mg/L	P Alkalinity- pH8.2	
			R2 =	131.837	mg/L	Total Alkal	105.47%
			R3 =	8.3	pH	pH	
			R4 =	21.5	oC	TEMPERATURE	
2/4	CCB	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.584	mg/L	Total Alkalinity	
			R3 =	5.636	pH	pH	
			R4 =	21.4	oC	TEMPERATURE	
3/4	LCS	11/24/202	R1 =	83.736	mg/L	P Alkalinity- pH8.2	
			R2 =	134.366	mg/L	Total Alkalinity	
			R3 =	10.492	pH	pH	
			R4 =	21.3	oC	TEMPERATURE	
4/4	LCSD	11/24/202	R1 =	83.255	mg/L	P Alkalinity- pH8.2	
			R2 =	134.408	mg/L	Total Alkalinity	
			R3 =	10.494	pH	pH	
			R4 =	21.2	oC	TEMPERATURE	
1/10	SO8152-1	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	45.374	mg/L	Total Alkalinity	
			R3 =	5.628	pH	pH	
			R4 =	10.4	oC	TEMPERATURE	
2/10	SO8152-2	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	115.138	mg/L	Total Alkalinity	
			R3 =	6.092	pH	pH	
			R4 =	10.2	oC	TEMPERATURE	
3/10	SO8152-3	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	73.714	mg/L	Total Alkalinity	
			R3 =	5.919	pH	pH	
			R4 =	10.4	oC	TEMPERATURE	
4/10	SO8152-4	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	20.158	mg/L	Total Alkalinity	
			R3 =	5.49	pH	pH	
			R4 =	10.9	oC	TEMPERATURE	
5/10	SO8152-5	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	157.064	mg/L	Total Alkalinity	
			R3 =	6.285	pH	pH	
			R4 =	11	oC	TEMPERATURE	
6/10	SO8152-6	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	157.398	mg/L	Total Alkalinity	
			R3 =	5.824	pH	pH	
			R4 =	11.6	oC	TEMPERATURE	
7/10	SO8152-6 MS	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	242.848	mg/L	Total Alkalinity	
			R3 =	6.091	pH	pH	
			R4 =	12.8	oC	TEMPERATURE	

8/10	SO8152-6 MSD	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	240.162	mg/L	Total Alkalinity	
			R3 =	6.143	pH	pH	
			R4 =	13.6	oC	TEMPERATURE	
9/10	CCV	11/24/202	R1 =	13.386	mg/L	P Alkalinity- pH8.2	
			R2 =	132.255	mg/L	Total Alkal	105.80%
			R3 =	8.644	pH	pH	
			R4 =	20	oC	TEMPERATURE	
10/10	CCB	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.536	mg/L	Total Alkalinity	
			R3 =	5.431	pH	pH	
			R4 =	20.4	oC	TEMPERATURE	
1/10	SO8173-1	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	212.281	mg/L	Total Alkalinity	
			R3 =	5.893	pH	pH	
			R4 =	11.4	oC	TEMPERATURE	
2/10	SO8173-3	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	248.877	mg/L	Total Alkalinity	
			R3 =	5.942	pH	pH	
			R4 =	11.5	oC	TEMPERATURE	
3/10	SO8173-5	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	193.555	mg/L	Total Alkalinity	
			R3 =	5.941	pH	pH	
			R4 =	12	oC	TEMPERATURE	
4/10	SO8173-7	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	209	mg/L	Total Alkalinity	
			R3 =	5.964	pH	pH	
			R4 =	12.3	oC	TEMPERATURE	
5/10	SO8173-9	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	145.422	mg/L	Total Alkalinity	
			R3 =	6.007	pH	pH	
			R4 =	13	oC	TEMPERATURE	
6/10	SO8173-11	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	87.038	mg/L	Total Alkalinity	
			R3 =	5.857	pH	pH	
			R4 =	12.8	oC	TEMPERATURE	
7/10	SO8173-13	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	108.523	mg/L	Total Alkalinity	
			R3 =	5.969	pH	pH	
			R4 =	13.2	oC	TEMPERATURE	
8/10	SO8173-15	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	150.01	mg/L	Total Alkalinity	
			R3 =	6.241	pH	pH	
			R4 =	13.7	oC	TEMPERATURE	
9/10	CCV	11/24/202	R1 =	11.777	mg/L	P Alkalinity- pH8.2	
			R2 =	132.119	mg/L	Total Alkal	105.70%
			R3 =	8.621	pH	pH	

			R4 =	19.6	oC	TEMPERATURE	
10/10	CCB	11/24/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.652	mg/L	Total Alkalinity	
			R3 =	5.418	pH	pH	
			R4 =	20	oC	TEMPERATURE	
Start time:	11/24/2021 9:34						
Results							
No.	Comment / ID	Start time	Rx	Result	Unit	Name	
Calibration data							
	Number of segmer	1					
	Slope	-58.90 mV/pH					
	Zero point	6.884 pH					
	Calibration tempe	25.0 oC					

WET CHEMISTRY BATCH REPORT
Dec 02 2021, 04:30 pm
Batch: WG310668 Run ID 1: R581654 Run ID 2: NONE

Parameter: Alkalinity
Prep Date: N/A

Date Analyzed: 27-NOV-21
Prep Method: N/A

Analyst Initials: ZL
Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8173-19	SAMP	STDM 2320B	50.0mL	50.0mL	1	128.619	130 mg/L	NA	5	0.23	5.0		
SO8185-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	265.357	260 mg/L	NA	5	0.23	5.0		
SO8185-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	254.478	250 mg/L	NA	5	0.23	5.0		
SO8185-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	10.481	10. mg/L	NA	5	0.23	5.0		
SO8185-4	SAMP	STDM 2320B	50.0mL	50.0mL	1	9.83	9.8 mg/L	NA	5	0.23	5.0		
SO8185-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	373.326	370 mg/L	NA	5	0.23	5.0		
SO8185-6	SAMP	STDM 2320B	50.0mL	50.0mL	1	218.583	220 mg/L	NA	5	0.23	5.0		
SO8191-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	11.788	12. mg/L	NA	5	0.23	5.0		
SO8224-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	46.544	46. mg/L	NA	5	0.23	5.0		
SO8224-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	2.498	U5.0 mg/L	NA	5	0.23	5.0		
SO8224-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	7.43	7.4 mg/L	NA	5	0.23	5.0		
SO8224-4	SAMP	STDM 2320B	50.0mL	50.0mL	1	737.112	740 mg/L	NA	5	0.23	5.0		
SO8224-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	767.782	770 mg/L	NA	5	0.23	5.0		
WG310668-1	MBLANK	STDM 2320B	50.0mL	50.0mL	1	2.717	J2.7 mg/L	NA	5	0.23	5.0		
WG310668-2	LCS	STDM 2320B	50.0mL	50.0mL	1	134.596	130 mg/L	NA	5	0.23	5.0		112
WG310668-3	LCSD	STDM 2320B	50.0mL	50.0mL	1	132.652	130 mg/L	NA	5	0.23	5.0	1	110
WG310668-4	MS	STDM 2320B	50.0mL	50.0mL	1	365.081	360 mg/L	NA	5	0.23	5.0		110
WG310668-5	MS	STDM 2320B	50.0mL	50.0mL	1	355.091	360 mg/L	NA	5	0.23	5.0		109

Comments:

WG310668-1	SO8173-19
WG310668-2	SO8173-19
WG310668-3	SO8173-19
WG310668-4	SO8185-1
WG310668-5	SO8185-2

Entered by: ZL Date: 12/2/21 Accepted by: [signature] Date: 12/03/21

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KATAHDIN ANALYTICAL SERVICES

ALKALINITY, BICARBONATE, CARBONATE, FREE CO2 - DL 25 AUTOTITRATOR

Analysis: EPA 310.1 SM2320B **Calculations:** SM 4500-CO2 D

pH Probe ID: DGIII-SC			
Alkalinity Acid Reagent: W20501		**Buffer pH 4 ID:** SWL 4798	
Acid Concentration: 0.02N		**Buffer pH 7 ID:**	4897
Alkalinity Check Standard: W20534 TV=125mg/L		**Buffer pH 10 ID:**	4788
Alkalinity MS: W20931 TV=120mg/L		**Pipette IDs:**	W11
Sulfuric Acid Titrant ID:			

Sample ID	Run #	Volume (mL)	Sample ID	Run #	Volume (mL)	Comments - Must indicate which sample
CCV	1	50	CCV	9	50	
CCB	2		CCB	10	1	
LCS	3					
LCSD	4		8185-1MS	1	44	
			-2MS	2	1	
8173-19	1	50	CCV	3	50	
8185-1	2		CCB	4	1	
-2	3					
-3	4					
-4	5					
-5	6					
-6	7					
8224-1	8					
CCV ZL	9					
CCB	10	1				
				ZL		
8191-1	1	50		11/27/21		
8185-3	2					
-4	3					
8224-2	4					
-1	5					
-3	6					
-4	7					
-5	8	1				

ZL 11/27/21

Analyst: ZL **Date:** 11/27/21

Checked By: [illegible] **Date:** 11/29/21

Start time:	11/27/2021 11:43						
Results							
No.	Comment / ID	Start time	Rx	Result	Unit	Name	RECOVERY
1/4	CCV	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	132.809	mg/L	Total Alkal	106.25%
			R3 =	8.056	pH	pH	
			R4 =	18.3	oC	TEMPERATURE	
2/4	CCB	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	11.85	mg/L	Total Alkalinity	
			R3 =	5.385	pH	pH	
			R4 =	18.4	oC	TEMPERATURE	
3/4	LCS	11/27/202	R1 =	112.306	mg/L	P Alkalinity- pH8.2	
			R2 =	134.596	mg/L	Total Alkalinity	
			R3 =	10.56	pH	pH	
			R4 =	18.3	oC	TEMPERATURE	
4/4	LCSD	11/27/202	R1 =	113.602	mg/L	P Alkalinity- pH8.2	
			R2 =	132.652	mg/L	Total Alkalinity	
			R3 =	10.564	pH	pH	
			R4 =	18.3	oC	TEMPERATURE	
1/10	SO8173-19	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	128.619	mg/L	Total Alkalinity	
			R3 =	5.8	pH	pH	
			R4 =	10.8	oC	TEMPERATURE	
2/10	SO8185-1	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	265.357	mg/L	Total Alkalinity	
			R3 =	6.17	pH	pH	
			R4 =	10.8	oC	TEMPERATURE	
3/10	SO8185-2	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	254.478	mg/L	Total Alkalinity	
			R3 =	6.241	pH	pH	
			R4 =	11.2	oC	TEMPERATURE	
4/10	SO8185-3	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	10.457	mg/L	Total Alkalinity	
			R3 =	5.593	pH	pH	
			R4 =	11.3	oC	TEMPERATURE	
5/10	SO8185-4	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	9.604	mg/L	Total Alkalinity	
			R3 =	5.527	pH	pH	
			R4 =	11.3	oC	TEMPERATURE	
6/10	SO8185-5	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	373.326	mg/L	Total Alkalinity	
			R3 =	6.026	pH	pH	
			R4 =	11.4	oC	TEMPERATURE	
7/10	SO8185-6	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	218.583	mg/L	Total Alkalinity	
			R3 =	5.986	pH	pH	
			R4 =	11.8	oC	TEMPERATURE	

8/10	SO8224-1	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	47.244	mg/L	Total Alkalinity	
			R3 =	5.799	pH	pH	
			R4 =	12.2	oC	TEMPERATURE	
9/10	CCV	11/27/202	R1 =	13.554	mg/L	P Alkalinity- pH8.2	
			R2 =	132.82	mg/L	Total Alkal	106.26%
			R3 =	8.596	pH	pH	
			R4 =	17.6	oC	TEMPERATURE	
10/10	CCB	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.654	mg/L	Total Alkalinity	
			R3 =	5.386	pH	pH	
			R4 =	18	oC	TEMPERATURE	
1/10	SO8191-1	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	11.788	mg/L	Total Alkalinity	
			R3 =	5.7	pH	pH	
			R4 =	14.2	oC	TEMPERATURE	
2/10	SO8185-3	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	10.481	mg/L	Total Alkalinity	
			R3 =	5.507	pH	pH	
			R4 =	11.6	oC	TEMPERATURE	
3/10	SO8185-4	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	9.83	mg/L	Total Alkalinity	
			R3 =	5.497	pH	pH	
			R4 =	11.4	oC	TEMPERATURE	
4/10	SO8224-2	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.498	mg/L	Total Alkalinity	
			R3 =	4.944	pH	pH	
			R4 =	12.4	oC	TEMPERATURE	
5/10	SO8224-1	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	46.544	mg/L	Total Alkalinity	
			R3 =	5.672	pH	pH	
			R4 =	12.5	oC	TEMPERATURE	
6/10	SO8224-3	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	7.43	mg/L	Total Alkalinity	
			R3 =	5.687	pH	pH	
			R4 =	13.5	oC	TEMPERATURE	
7/10	SO8224-4	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	737.112	mg/L	Total Alkalinity	
			R3 =	6.644	pH	pH	
			R4 =	12.8	oC	TEMPERATURE	
8/10	SO8224-5	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	767.782	mg/L	Total Alkalinity	
			R3 =	6.787	pH	pH	
			R4 =	13.8	oC	TEMPERATURE	
9/10	CCV	11/27/202	R1 =	11.756	mg/L	P Alkalinity- pH8.2	
			R2 =	131.868	mg/L	Total Alkal	105.49%
			R3 =	8.604	pH	pH	

			R4 =	17.6	oC	TEMPERATURE	
10/10	CCB	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.717	mg/L	Total Alkalinity	
			R3 =	5.477	pH	pH	
			R4 =	18.1	oC	TEMPERATURE	
1/4	SO8185-1 MS	11/27/202	R1 =	13.773	mg/L	P Alkalinity- pH8.2	
			R2 =	365.081	mg/L	Total Alkalinity	
			R3 =	8.323	pH	pH	
			R4 =	12.9	oC	TEMPERATURE	
2/4	SO8185-2 MS	11/27/202	R1 =	51.372	mg/L	P Alkalinity- pH8.2	
			R2 =	355.091	mg/L	Total Alkalinity	
			R3 =	8.742	pH	pH	
			R4 =	13	oC	TEMPERATURE	
3/4	CCV	11/27/202	R1 =	12.028	mg/L	P Alkalinity- pH8.2	
			R2 =	133.175	mg/L	Total Alkal	106.54%
			R3 =	8.57	pH	pH	
			R4 =	17.8	oC	TEMPERATURE	
4/4	CCB	11/27/202	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.568	mg/L	Total Alkalinity	
			R3 =	5.487	pH	pH	
			R4 =	18.5	oC	TEMPERATURE	
Start time:	11/27/2021 11:27						
Results							
No.	Comment / ID	Start time	Rx	Result	Unit	Name	
Calibration data							
	Number of segmer	1					
	Slope	-58.70 mV/pH					
	Zero point	6.899 pH					
	Calibration temper	25.0 oC					

WET CHEMISTRY BATCH REPORT
Dec 03 2021, 03:10 pm
Batch: WG310883

Parameter: Solids-Filterable Residue

Prep Date: 01-DEC-21

Date Analyzed: 03-DEC-21

Prep Method: STDM 2540C

Analyst Initials: JJ

Prep Chemist: JJ

Sample	Samp Type	Method	Tare Amt.	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8076-1	SAMP	STDM 2540C	91.35610g		91.52150g	1	1654	1600 mg/L	NA	10	5.02	10.		
SO8076-2	SAMP	STDM 2540C	91.76900g		91.95140g	1	1824	1800 mg/L	NA	10	5.02	10.		
SO8076-3	SAMP	STDM 2540C	94.06430g		94.13130g	1	670	670 mg/L	NA	10	5.02	10.		
SO8076-4	SAMP	STDM 2540C	78.40450g		78.44510g	1	406	410 mg/L	NA	10	5.02	10.		
SO8076-5	SAMP	STDM 2540C	77.51520g		77.57770g	1	625	620 mg/L	NA	10	5.02	10.		
SO8150-1	SAMP	STDM 2540C	87.33620g		87.35260g	1	164	160 mg/L	NA	10	5.02	10.		
SO8150-3	SAMP	STDM 2540C	80.10640g		80.11360g	1	72	72. mg/L	NA	10	5.02	10.		
SO8150-5	SAMP	STDM 2540C	93.03490g		93.04620g	1	113	110 mg/L	NA	10	5.02	10.		
SO8152-1	SAMP	STDM 2540C	89.97590g		89.98670g	1	108	110 mg/L	NA	10	5.02	10.		
SO8152-2	SAMP	STDM 2540C	94.08180g		94.09500g	1	132	130 mg/L	NA	10	5.02	10.		
SO8152-3	SAMP	STDM 2540C	87.93070g		87.94460g	1	139	140 mg/L	NA	10	5.02	10.		
SO8152-4	SAMP	STDM 2540C	83.70870g		83.71490g	1	62	62. mg/L	NA	10	5.02	10.		
SO8152-5	SAMP	STDM 2540C	89.35090g		89.36360g	1	127	130 mg/L	NA	10	5.02	10.		
SO8152-6	SAMP	STDM 2540C	92.14580g		92.16510g	1	193	190 mg/L	NA	10	5.02	10.		
SO8173-1	SAMP	STDM 2540C	102.6254g		102.6416g	1	162	160 mg/L	NA	10	5.02	10.		
SO8173-3	SAMP	STDM 2540C	99.76020g		99.78360g	1	234	230 mg/L	NA	10	5.02	10.		
SO8173-5	SAMP	STDM 2540C	87.06940g		87.09070g	1	213	210 mg/L	NA	10	5.02	10.		
SO8173-7	SAMP	STDM 2540C	87.12310g		87.14270g	1	196	200 mg/L	NA	10	5.02	10.		
SO8173-9	SAMP	STDM 2540C	91.44590g		91.46260g	1	167	170 mg/L	NA	10	5.02	10.		
WG310883-18	MBLANK	STDM 2540C	73.74770g		73.74690g	1	-8	U8.0 mg/L	NA	10	5.02	10.		
WG310883-19	LCS	STDM 2540C	73.49230g		73.56340g	1	711	710 mg/L	NA	10	5.02	10.		95
WG310883-20	LCSD	STDM 2540C	90.28470g		90.35520g	1	705	700 mg/L	NA	10	5.02	10.	1	94
WG310883-21	DUP	STDM 2540C	85.73320g		85.74940g	1	162	160 mg/L	NA	10	5.02	10.	17	
WG310883-22	DUP	STDM 2540C	88.24990g		88.27440g	1	245	240 mg/L	NA	10	5.02	10.	4	

Comments:

SO8173-3	MS/MSD
WG310883-18	SO8076-1
WG310883-19	SO8076-1
WG310883-20	SO8076-1
WG310883-21	SO8152-6
WG310883-22	SO8173-3

Entered by: JJ Date: 12/3/21 Accepted by: [signature] Date: 12/07/21

Katahdin Analytical Services SO8173 Page 238 of 415

W6310883
R582120

KATAHDIN ANALYTICAL SERVICES, LLC
TOTAL DISSOLVED SOLIDS/TOTAL SUSPENDED SOLIDS

Total Disolved Solids: EPA 160.1____ Total Dissolved Solids: SM 2540C ✓ PQL: 10mg/L

Total Suspended Solids: EPA 160.2____ Total Suspended Solids: SM 2540D____ PQL: 4mg/L

Aqueous Solids LCS Sand ID/Lot# W20525

Filter Lot # SWL 4878

ASTM Class Weights

Balance ID: 01

True WT (g)	Initial WT (g)	Final WT (g)
0.1000	0.0997	0.0999
1.0000	0.9998	0.9997
10.0000	9.9999	9.9998
100.0000	99.9998	100.0000

Oven Temperatures (C)

TDS: 180 +/- 2°C, TSS: 103 - 105 °C

Oven ID: 01, 03

In Temp.	180	Date:	12/01/21	Time:	9:30
Out Temp.	180	Date:	12/2/21	Time:	8:10
In Temp.	180	Date:	12/2/21	Time:	11:40
Out Temp.	180	Date:	12/2/21	Time:	16:04
In Temp.		Date:		Time:	
Out Temp.		Date:		Time:	

Notes:
All samples being run out of hold times
final weight on 1213 / 0.0998 0.9995 9.9997 99.9996

KAS Sample ID	Sample Volume (ml)	Time of Initial Aliquot	Filter or Dish ID	Filter or Dish Wt. (g)	Dry 1 Dish/Filter + Sample Residue Wt. (g)	Dry 2 Dish/Filter + Sample Residue Wt. (g)	Time of Final Weighing (Analysis)
Blank	100	8:35	413	73.7477	73.7468	73.7469	9:00
LCS			404	73.4923	73.5644	73.5634	
LCSD			219	90.2847	90.3562	90.3552	
SO8076-1			217	91.3561	91.5223	91.5215	
-2			213	91.7690	91.9524	91.9514	
-3			206	94.0643	94.1320	94.1313	
-4			77	78.4045	78.4454	78.4451	
-5			58	77.5152	77.5784	77.5777	
SO8150-1			10	87.3362	87.3536	87.3526	
-3			00046	80.1064	80.1146	80.1136	
-5			ARK	93.0349	93.0468	93.0462	
SO8152-1			W35	89.9759	89.9871	89.9867	
-2			J745	94.0818	94.0952	94.0950	
-3			BP6	87.9307	87.9453	87.9446	
-4			BP5	83.7087	83.7151	83.7149	
-5			BP4	89.3509	89.3646	89.3636	
-6			BP3	92.1458	92.1659	92.1651	
SO8173-1			J741	102.6254	102.6426	102.6416	
-3			W40	99.7602	99.7846	99.7836	
-5			AL25	87.0694	87.0917	87.0907	
-7			AL22	87.1231	87.1435	87.1427	
-9			AL16	91.4459	91.4631	91.4626	
SO8152-6DUP			AL14	85.7332	85.7504	85.7494	
SO8173-3DUP		9:15	AL13	88.2499	88.2754	88.2744	9:15

Analyst: JJ Date: 12/01/21

Checked By: Date: 12/06/21

WET CHEMISTRY BATCH REPORT
Dec 06 2021, 02:59 pm
Batch: WG310958

Parameter: Solids-Filterable Residue

Date Analyzed: 06-DEC-21

Analyst Initials: JJ

Prep Date: 02-DEC-21

Prep Method: STDM 2540C

Prep Chemist: JJ

Sample	Samp Type	Method	Tare Amt.	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8173-11	SAMP	STDM 2540C	85.53040g		85.54670g	1	163	160 mg/L	NA	10	5.02	10.		
SO8173-13	SAMP	STDM 2540C	80.88770g		80.90570g	1	180	180 mg/L	NA	10	5.02	10.		
SO8173-15	SAMP	STDM 2540C	92.10560g		92.12550g	1	199	200 mg/L	NA	10	5.02	10.		
SO8173-17	SAMP	STDM 2540C	88.83500g		88.84820g	1	132	130 mg/L	NA	10	5.02	10.		
SO8173-19	SAMP	STDM 2540C	92.79080g		92.80990g	1	191	190 mg/L	NA	10	5.02	10.		
SO8185-1	SAMP	STDM 2540C	90.55650g		90.58880g	1	323	320 mg/L	NA	10	5.02	10.		
SO8185-2	SAMP	STDM 2540C	85.72200g		85.75000g	1	280	280 mg/L	NA	10	5.02	10.		
SO8185-3	SAMP	STDM 2540C	89.99720g		90.00100g	1	38	38. mg/L	NA	10	5.02	10.		
SO8185-4	SAMP	STDM 2540C	90.67680g		90.67750g	1	7	U10. mg/L	NA	10	5.02	10.		
SO8185-5	SAMP	STDM 2540C	89.38670g		89.42550g	1	388	390 mg/L	NA	10	5.02	10.		
SO8185-6	SAMP	STDM 2540C	91.30230g		91.33170g	1	294	290 mg/L	NA	10	5.02	10.		
SO8224-1	SAMP	STDM 2540C	93.37600g		93.37990g	1	39	39. mg/L	NA	10	5.02	10.		
SO8224-2	SAMP	STDM 2540C	92	~~91~~.17830g	92.18230g	1	40 ~~10940~~	40 ~~10000~~ mg/L	NA	10	5.02	10.		
SO8224-3	SAMP	STDM 2540C		90.70930g	90.71170g	1	24	24. mg/L	NA	10	5.02	10.		
SO8224-4	SAMP	STDM 2540C		88.05360g	88.20660g	1	1530	1500 mg/L	NA	10	5.02	10.		
SO8224-5	SAMP	STDM 2540C		91.33190g	91.46260g	1	1307	1300 mg/L	NA	10	5.02	10.		
WG310958-1	MBLANK	STDM 2540C		82.59160g	82.59120g	1	-4	U8.0 mg/L	NA	10	5.02	10.		
WG310958-2	LCS	STDM 2540C		80.63810g	80.70850g	1	704	700 mg/L	NA	10	5.02	10.		94
WG310958-3	LCSD	STDM 2540C		86.53730g	86.61060g	1	733	730 mg/L	NA	10	5.02	10.	4	98
WG310958-4	DUP	STDM 2540C		84.03600g	84.07510g	1	391	390 mg/L	NA	10	5.02	10.	1	
WG310958-5	DUP	STDM 2540C		101.4110g	101.5534g	1	1424	1400 mg/L	NA	10	5.02	10.	7	

Comments:

WG310958-1	SO8173-11
WG310958-2	SO8173-11
WG310958-3	SO8173-11
WG310958-4	SO8185-5
WG310958-5	SO8224-4

Entered by: JJ Date: 12/6/21 Accepted by: Date: 12/07/21

Katahdin Analytical Services SO8173 Page 240 of 415

WG310958
R582218

KATAHDIN ANALYTICAL SERVICES, LLC

TOTAL DISSOLVED SOLIDS/TOTAL SUSPENDED SOLIDS

Total Disolved Solids: EPA 160.1____ Total Dissolved Solids: SM 2540C ✓ PQL: 10mg/L

Total Suspended Solids: EPA 160.2____ Total Suspended Solids: SM 2540D____ PQL: 4mg/L

Aqueous Solids LCS Sand ID/Lot# W20525

Filter Lot # SWL 4878

ASTM Class Weights

Balance ID: 01

True WT (g)	Initial WT (g)	Final WT (g)
0.1000	0.0997	0.0998
1.0000	0.9997	0.9995
10.0000	9.9998	9.9997
100.0000	102.0000	99.9996

Notes: All samples being run out of hold-time
final weight on 12/1 [illegible]

Oven Temperatures (C)

TDS: 180 +/- 2°C, TSS: 103 - 105 °C

Oven ID: 01

In Temp.	180	Date: 12/2/21	Time: 10:45
Out Temp.	180	Date: 12/3/21	Time: 9:15
In Temp.	180	Date: 12/3/21	Time: 13:05
Out Temp.	180	Date: 12/3/21	Time: 14:35
In Temp.		Date:	Time:
Out Temp.		Date:	Time:

KAS Sample ID	Sample Volume (ml)	Time of Initial Aliquot	Filter or Dish ID	Filter or Dish Wt. (g)	Dry 1 Dish/Filter + Sample Residue Wt. (g)	Dry 2 Dish/Filter + Sample Residue Wt. (g)	Time of Final Weighing (Analysis)
Blank	100	9:45	AL12	82.5916	82.5907	82.5912	8:40
LCS			AL11	80.6381	80.7081	80.7085	
LCSD			AL9	86.5373	86.6100	86.6106	
SO8173-11			AL8	85.5304	85.5457	85.5467	
-13			AL6	80.8877	80.9061	80.9057	
-15			AL5	92.1056	92.1247	92.1255	
-17			AL2	88.8350	88.8472	88.8482	
-19			J10	92.7908	92.8095	92.8099	
SO8185-1			009	90.5565	90.5880	90.5888	
-2			008	85.7220	85.7495	85.7500	
-3			007	89.9972	90.0003	90.0010	
-4			006	90.6768	90.6769	90.6775	
-5			005	89.3867	89.4250	89.4255	
-6			004	91.3023	91.3309	91.3317	
SO8224-1			003	93.3760	93.3800	93.3799	
-2			002	92.1783	92.1819	92.1823	
-3			001	90.7093	90.7107	90.7117	
-4			BP12	88.0536	88.2056	88.2066	
-5			BP11	91.3319	91.4616	91.4626	
SO8185-5 DUP			BP9	84.0360	84.0744	84.0751	
SO8224-4 DUP		10:22	BP8	~~101.4110~~ 101.4112	101.5524	101.5534	8:50

JJ 12/2

Analyst: JJ Date: 12/2/21

Checked By: [signature] Date: 12/06/21

Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH nelac
Cert No E87604

Wet Chemistry Batch Report

Analyst Initials: SS
Date Analyzed: 23-NOV-21

Batch: WG311079
Prep Method: N/A
Prep Chemist: SS

Sample	Samp Type	Method	Parameter	DF	Result		Rpt. Result	Units	PQL	Adj. PQL	MDL	Adj. MDL	RPD	Rec.
SO8173-11DLY	SAMP	SW846 9056A	Nitrate as N	1	.0528		0.053	mg/L	.05	0.050	.0174	0.017		
SO8173-13DLY	SAMP	SW846 9056A	Nitrate as N	1	.0597		0.060	mg/L	.05	0.050	.0174	0.017		
SO8173-15DLY	SAMP	SW846 9056A	Nitrate as N	1	.1521		0.15	mg/L	.05	0.050	.0174	0.017		
SO8173-17DLY	SAMP	SW846 9056A	Nitrate as N	1	.1631		0.16	mg/L	.05	0.050	.0174	0.017		
SO8173-19DLY	SAMP	SW846 9056A	Nitrate as N	1	.0555		0.056	mg/L	.05	0.050	.0174	0.017		
SO8173-1DLY	SAMP	SW846 9056A	Nitrate as N	1	.058		0.058	mg/L	.05	0.050	.0174	0.017		
SO8173-3DLY	SAMP	SW846 9056A	Nitrate as N	1	.2289		0.23	mg/L	.05	0.050	.0174	0.017		
SO8173-5DLY	SAMP	SW846 9056A	Nitrate as N	1	.0602		0.060	mg/L	.05	0.050	.0174	0.017		
SO8173-7DLY	SAMP	SW846 9056A	Nitrate as N	1	.0461	J	0.046	mg/L	.05	0.050	.0174	0.017		
SO8173-9DLY	SAMP	SW846 9056A	Nitrate as N	1	.0495	J	0.050	mg/L	.05	0.050	.0174	0.017		
WG311079-1	MBLANK	SW846 9056A	Nitrate as N	1	.0481	J	0.048	mg/L	.05	0.050	.0174	0.017		
WG311079-2	LCS	SW846 9056A	Nitrate as N	1	.7525	*	0.752	mg/L	.05	0.050	.0174	0.017		89.0
WG311079-3	MS	SW846 9056A	Nitrate as N	1	.7577	*	0.76	mg/L	.05	0.050	.0174	0.017		63.9
WG311079-4	MSD	SW846 9056A	Nitrate as N	1	.7596	*	0.76	mg/L	.05	0.050	.0174	0.017	0	64.2

Comments:

WG311079-1	SO8173-1
WG311079-2	SO8173-1
WG311079-3	SO8173-3
WG311079-4	SO8173-3

Entered by: SS Date: 1/27/22 Accepted by: Date: 01/28/22

Katahdin Analytical Serivces SO8173 Page 242 of 415

Katahdin
ANALYTICAL SERVICES

Accredited in accordance with nelac
Cert No E87604

Wet Chemistry Batch Report

Analyst Initials: SS
Date Analyzed: 23-NOV-21

Batch: WG311080
Prep Method: E300.0
Prep Chemist: SS

Sample	Samp Type	Method	Parameter	DF	Result	Rpt. Result	Units	PQL	Adj. PQL	MDL	Adj. MDL	RPD	Rec.
SO8178-1	SAMP	EPA 300.0	Chloride	1	12.4329	12.	mg/L	2	2.0	.0993	0.099		
SO8178-1	SAMP	EPA 300.0	Nitrate as N	1	.0483	U 0.050	mg/L	.05	0.050	.0174	0.017		
SO8178-1	SAMP	EPA 300.0	Nitrite as N	1	.0786	0.079	mg/L	.05	0.050	.0092	0.0092		
WG311080-1	MBLANK	EPA 300.0	Chloride	1	.105	J 0.10	mg/L	2	2.0	.0993	0.099		
WG311080-1	MBLANK	EPA 300.0	Nitrate as N	1	.0484	J 0.048	mg/L	.05	0.050	.0174	0.017		
WG311080-1	MBLANK	EPA 300.0	Nitrite as N	1	.0065	U 0.025	mg/L	.05	0.050	.0092	0.0092		
WG311080-2	LCS	EPA 300.0	Chloride	1	3.4068	3.41	mg/L	2	2.0	.0993	0.099		90.9
WG311080-2	LCS	EPA 300.0	Nitrate as N	1	.7525	* 0.752	mg/L	.05	0.050	.0174	0.017		89.0
WG311080-2	LCS	EPA 300.0	Nitrite as N	1	1.0802	1.08	mg/L	.05	0.050	.0092	0.0092		94.7

Comments:

WG311080-1 SO8178-1
WG311080-2 SO8178-1

Entered by: SS Date: 12/6/21 Accepted by: Date: 12/07/21

IC STANDARDS PREPARATION

Fill sheet in completely, file with each batch of samples analyzed.

MIX ID: W20515	Expiration Date:11/29/21	ICAL Date: 09/23/21

LYTE	INITIAL AMOUNT (mL)	OF	STOCK CONC. (mg/L)	TO	FINAL VOLUME(mL)	=	FINAL CONC.(mg/L)
Cl	2.0	OF	1000	TO	100	=	20
(as N)	0.8	OF	1000			=	8
(as N)	0.8	OF	1000			=	8
Br	4.0	OF	1000			=	40
O4	4.0	OF	1000			=	40
F	1.0	OF	1000			=	10
(as P)	1	OF	1000			=	10

WORKING STANDARDS Standards prepared on each day of use

INITIAL AMOUNT (mL)	OF	Final Volume (mL)	FINAL CONC. (mg/L)							STD ID*
			Cl	NO2	NO3	Br	SO4	PO4	F	
1	ICAL	1	20	8	8	40	40	10	10	IC7-092321
0.5	IC7	1	10	4	4	20	20	5	5	IC6-092321
0.25	IC7	1	5	2	2	10	10	2.5	2.5	IC5-092321
0.25	IC6	1	2.5	1	1	5	5	1.25	1.25	IC4-092321
0.1	IC6	1	1	0.4	0.4	2	2	0.5	.5	IC3-092321
0.1	IC3	1	0.1	0.04	0.04	0.2	0.2	0.05	.05	IC2-092321
0.5	IC7	1	10	4	4	20	20	5	5	CCV-112321

*** STD ID is prefix followed by the date of preparation (ie. IC6-020216)**

/MATRIX SPIKE MIX ID: W20510	Expiration Date:11/25/21

7.5 mL of High Purity multi-element IC standard solution "A" and 7.5 mL of High Purity multi-element standard solution "B" diluted to 100 mL. For MS, add 0.05 mL of mix to 1.0 mL of sample. For LCS, add 0.05 mL of mix to 1.0 mL of DI water.

Final Concentrations (mg/L):

	NO2 (as N)	NO3 (as N)	Br	SO4	PO4 (as P)	F	STD ID*
5	1.14	0.845	3.75	3.75	1.22	3.75	IC-LCS-112321

*** STD ID is prefix followed by the date of preparation (ie. IC-LCS-020216)**

Comments:
2x dil = 0.5mL 1x→1.0mL
20x dil = 0.05mL 1x→1.0mL

Pipettes: W3, W5
5x dil = 0.2mL 1x→1.0mL
50x dil = 0.02mL 1x→1.0mL

10x dil = 0.1mL 1x→1.0mL
100x dil = 0.1mL 10x→1.0mL

Katahdin Analytical Services **ION CHROMATOGRAPHY RUNLOG** Dionex ICS-2100 (Instrument IC-3)

Analysis Date: 11/23/21	**Analytical Column S/N:** 210423034	**Calibration Date:** 09/23/21
Analysis Sequence: 112321 B	**Guard Column S/N:** 210727027	**Calibration Sequence:** 092321 A Cal
Analyst: SS	**Suppressor S/N:** 180825029	☐ If box at left is checked, continued from previous page. Refer to previous page for header information.

Reporting / Reanalysis Codes: ✓ Report without manipulation; S Report, peak automatically reintegrated with SmartPeak; M Report, peak manually integrated; A Report, peak manually assigned; R Do not report, reanalyze sample

Method Codes: E EPA 300.0; SW SW846 9056A

Katahdin Sample Number	Dilution Factor	Method Code	Report or Reanalyze (enter appropriate code): F	Cl	NO_2	SO_4	Br	NO_3	PO_4	Comments
CCV			✓	✓	✓	✓		✓		
CCB			M	M	M	M	M	M		Contamination in SO4 CCB
LCS			✓	✓	✓					
LCS						✓				
SO 8173-3	1	S		R		✓R		✓		Cl 2X, SO4 1X
MS	1			R		✓R		✓		
MSD	1			R		✓R		✓		
8173-1	1			R		✓R		✓		Cl 2X, SO4 1X
-13	1			R		✓		✓		Cl 2X
-17	1			R		✓R		✓		Cl 2X, SO4 1X
-15	1			R		✓R		✓		Cl 2X, SO4 1X
-7	1			R		✓		✓		Cl 2X
CCV			✓	✓	✓	✓		✓		
CCB			M	M	M	M	M	M		
8173-5	1	S		R		✓		✓		Cl 2X
-19	1			R		✓		✓		Cl 2X
-9	1			R		✓		✓		Cl 2X
-11	1			R		✓		✓		Cl 2X
8178-1	1	DW		✓	✓			✓		
CCV			✓	✓	✓	✓		✓		
CCB			M	M	M	M	M	M		

S: WG311079 → RS85247
DW: WG311080 → RS82223

SJ 12/6/21

WL-069-Revision 1 – 04/12/20016

Reviewed by: [signature] **Review Date:** 12/07/21

QAWL1026 - 000343

0000081

Sequence Overview

Sequence Details

Name:	**112321B REPROC**	*Created On:*	**10/Feb/16 13:48:22**
Directory:	**Instrument Data\ICS-2100\2021\11-NOV**	*Created By:*	**Katahdin Analytical**
Data Vault:	**ChromeleonLocal**	*Updated On:*	**06/Dec/21 12:09:45**
No. of Injections:	**21**	*Updated By:*	**Katahdin Analytical**

Injection Details

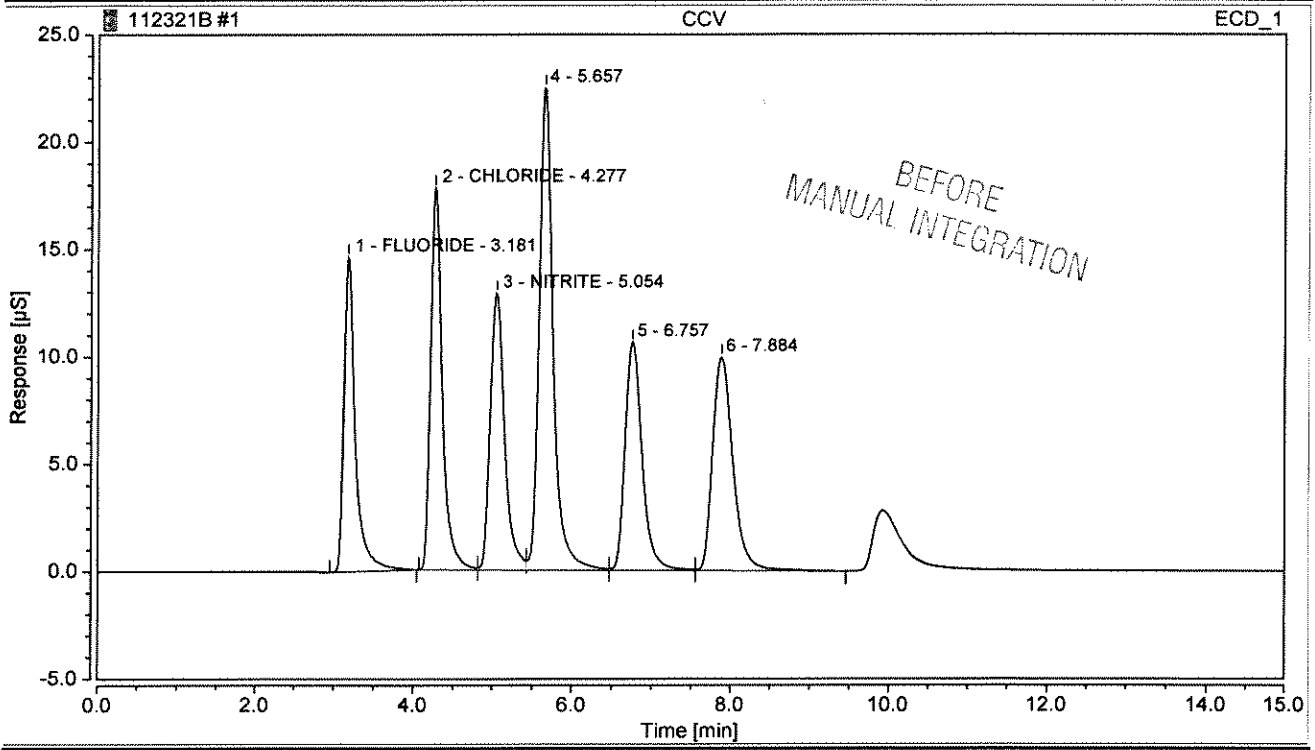
No.	Injection Name	Position	Type	Level	Inject Time	Status
1	CCV	1	Check Standard	06	23/Nov/21 16:31:03	Finished
2	CCB	2	Unknown		23/Nov/21 16:51:30	Finished
3	LCS	3	Check Standard	07	23/Nov/21 17:12:18	Finished
4	LCS	4	Check Standard	07	23/Nov/21 17:33:07	Finished
5	SO8173-3	5	Unknown		23/Nov/21 17:53:55	Finished
6	SO8173-3 MS	6	Unknown		23/Nov/21 18:14:43	Finished
7	SO8173-3 MSD	7	Unknown		23/Nov/21 18:35:31	Finished
8	SO8173-1	8	Unknown		23/Nov/21 18:56:20	Finished
9	SO8173-13	9	Unknown		23/Nov/21 19:17:08	Finished
10	SO8173-17	10	Unknown		23/Nov/21 19:37:55	Finished
11	SO8173-15	11	Unknown		23/Nov/21 19:58:43	Finished
12	SO8173-7	12	Unknown		23/Nov/21 20:19:31	Finished
13	CCV	13	Check Standard	06	23/Nov/21 20:40:20	Finished
14	CCB	14	Unknown		23/Nov/21 21:01:08	Finished
15	SO8173-5	15	Unknown		23/Nov/21 21:21:56	Finished
16	SO8173-19	16	Unknown		23/Nov/21 21:42:43	Finished
17	SO8173-9	17	Unknown		23/Nov/21 22:03:31	Finished
18	SO8173-11	18	Unknown		23/Nov/21 22:24:19	Finished
19	SO8178-1	19	Unknown		23/Nov/21 22:45:07	Finished
20	CCV	20	Check Standard	06	23/Nov/21 23:05:55	Finished
21	CCB	21	Unknown		23/Nov/21 23:26:43	Finished

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.98**
Vial Number:	**1**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 16:31**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

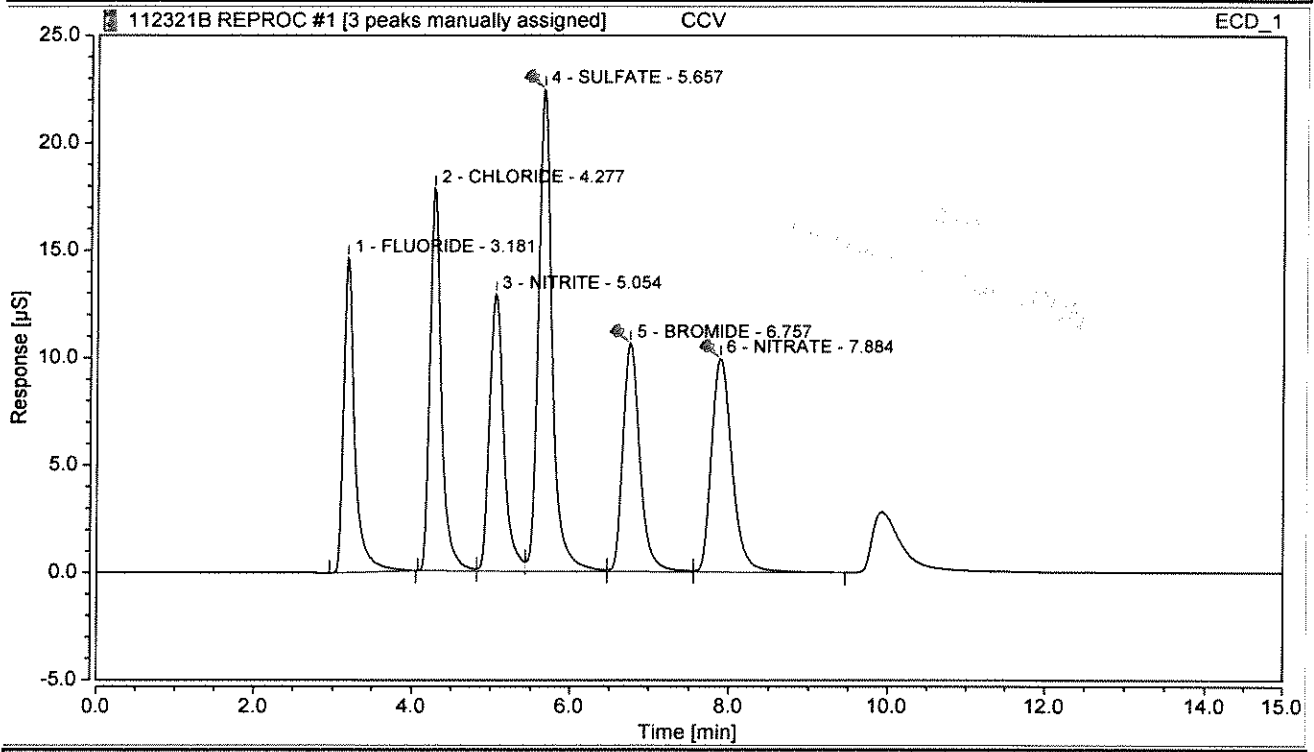
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.181	2.465	14.660	13.38	16.59	5.0413	0.8250
2	CHLORIDE	4.277	3.020	17.799	16.39	20.14	9.8973	-1.0273
3	NITRITE	5.054	2.693	12.887	14.61	14.58	4.0241	0.6026
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.178**	**45.347**	**44.38**	**51.30**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.98**
Vial Number:	**1**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 16:31**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

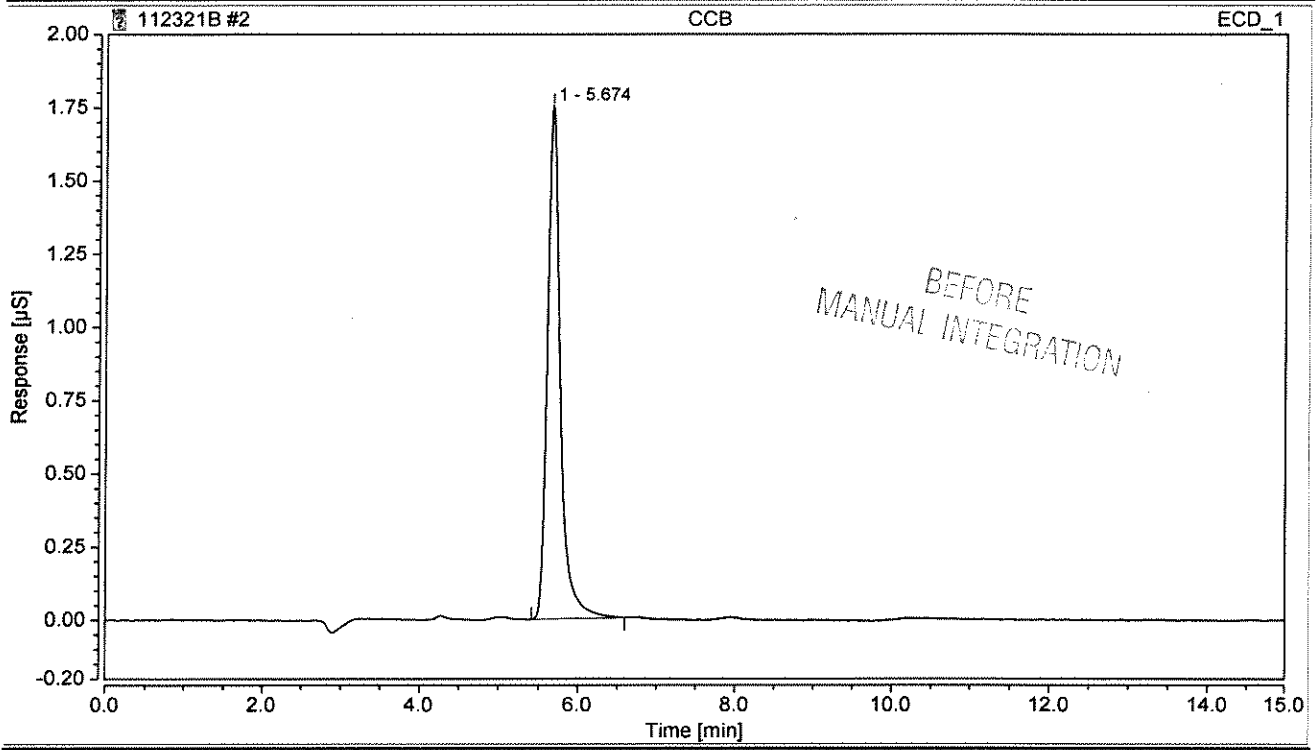
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.181	2.465	14.660	13.38	16.59	5.0413	0.8250
2	CHLORIDE	4.277	3.020	17.799	16.39	20.14	9.8973	-1.0273
3	NITRITE	5.054	2.693	12.887	14.61	14.58	4.0241	0.6026
4	SULFATE	5.657	4.602	22.462	24.97	25.41	19.9705	-0.1474
5	BROMIDE	6.757	2.661	10.629	14.44	12.03	16.3885	-18.0575
6	NITRATE	7.884	2.987	9.950	16.21	11.26	3.8944	-2.6399
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**18.428**	**88.388**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.99**
Vial Number:	**2**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 16:51**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

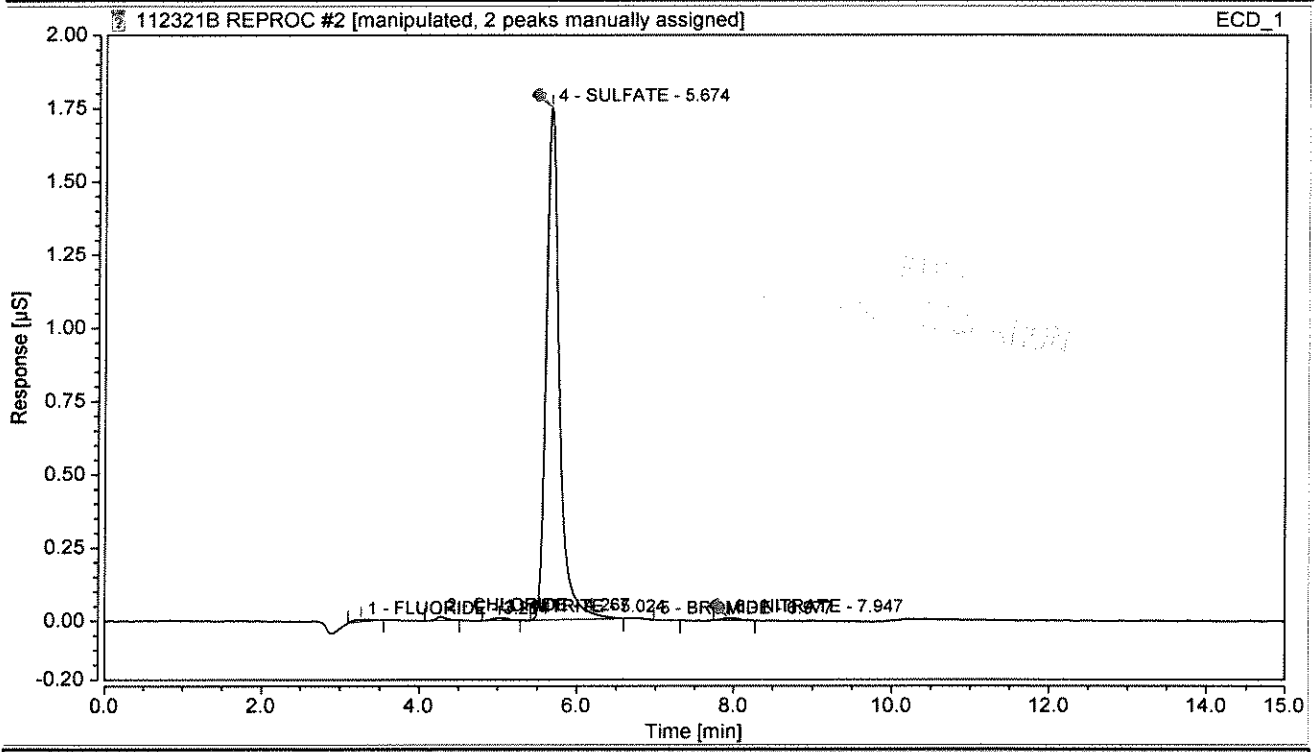
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.99**
Vial Number:	**2**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 16:51**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

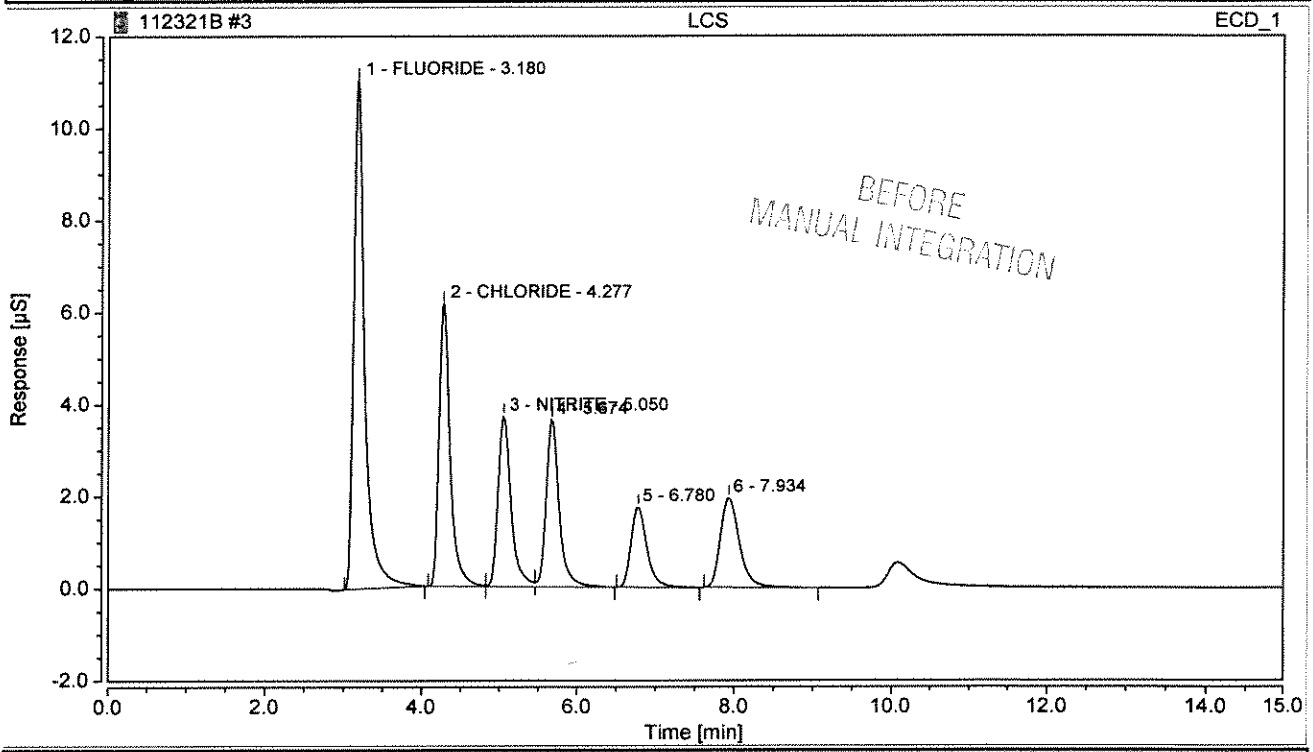
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.264	0.002	0.007	0.56	0.40	0.0039	n.a.
2	CHLORIDE	4.267	0.002	0.013	0.54	0.72	0.1013	n.a.
3	NITRITE	5.024	0.002	0.009	0.57	0.50	0.0029	n.a.
4	SULFATE	5.674	0.337	1.751	97.74	97.94	1.4643	n.a.
5	BROMIDE	6.977	0.000	0.000	0.03	0.00	0.0000	n.a.
6	NITRATE	7.947	0.002	0.008	0.58	0.45	0.0481	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.345**	**1.787**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.99**
Vial Number:	**3**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 17:12**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

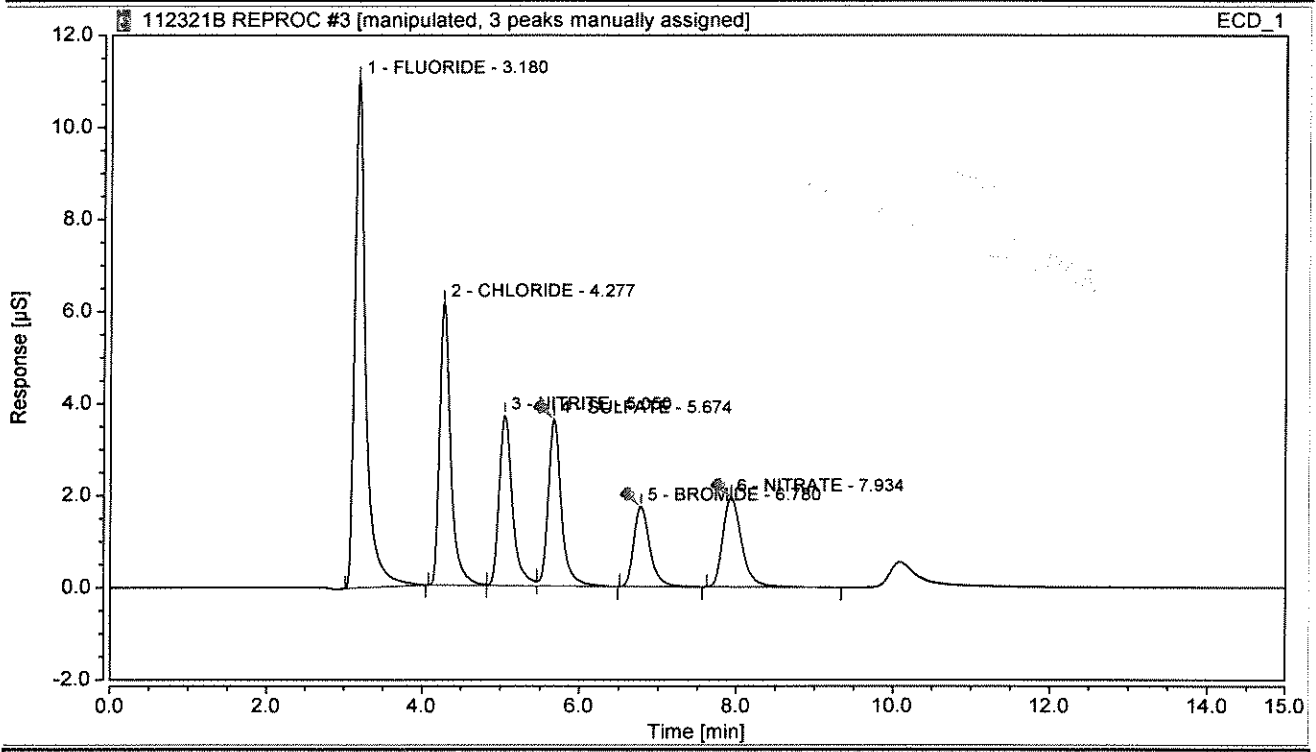
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.180	1.799	11.050	34.50	39.16	3.6778	-1.9246
2	CHLORIDE	4.277	1.020	6.145	19.57	21.78	3.4068	-9.1526
3	NITRITE	5.050	0.723	3.703	13.86	13.12	1.0802	-5.2472
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**3.542**	**20.898**	**67.93**	**74.05**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.99**
Vial Number:	**3**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 17:12**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

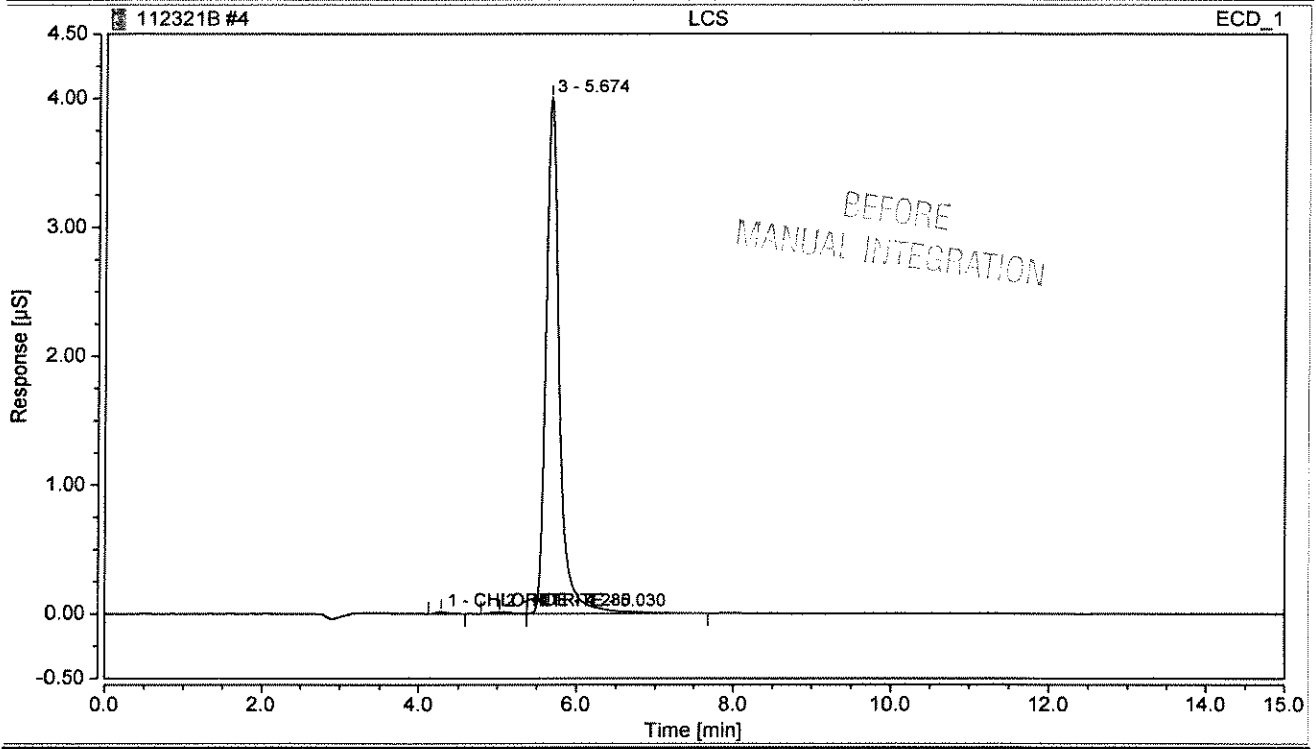
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.180	1.799	11.050	34.49	39.16	3.6778	-1.9246
2	CHLORIDE	4.277	1.020	6.145	19.57	21.78	3.4068	-9.1526
3	NITRITE	5.050	0.723	3.703	13.86	13.12	1.0802	-5.2472
4	SULFATE	5.674	0.710	3.630	13.61	12.86	3.0805	-17.8541
5	BROMIDE	6.780	0.414	1.746	7.95	6.19	2.6914	-28.2292
6	NITRATE	7.934	0.549	1.948	10.52	6.90	0.7525	-10.9503
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.215**	**28.221**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.99**
Vial Number:	**4**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 17:33**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

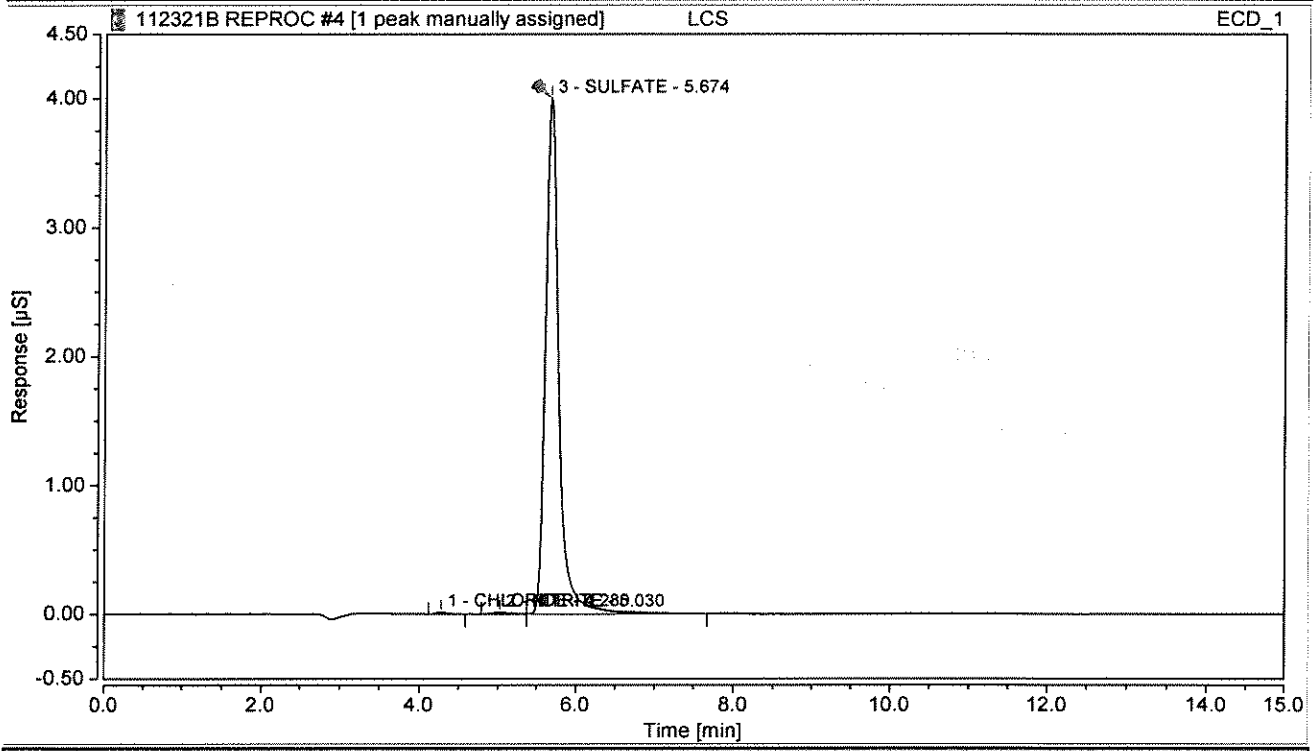
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	CHLORIDE	4.280	0.003	0.015	0.33	0.38	0.1039	-97.2288
2	NITRITE	5.030	0.004	0.013	0.45	0.32	0.0053	-99.5334
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.006**	**0.028**	**0.78**	**0.71**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.99**
Vial Number:	**4**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 17:33**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

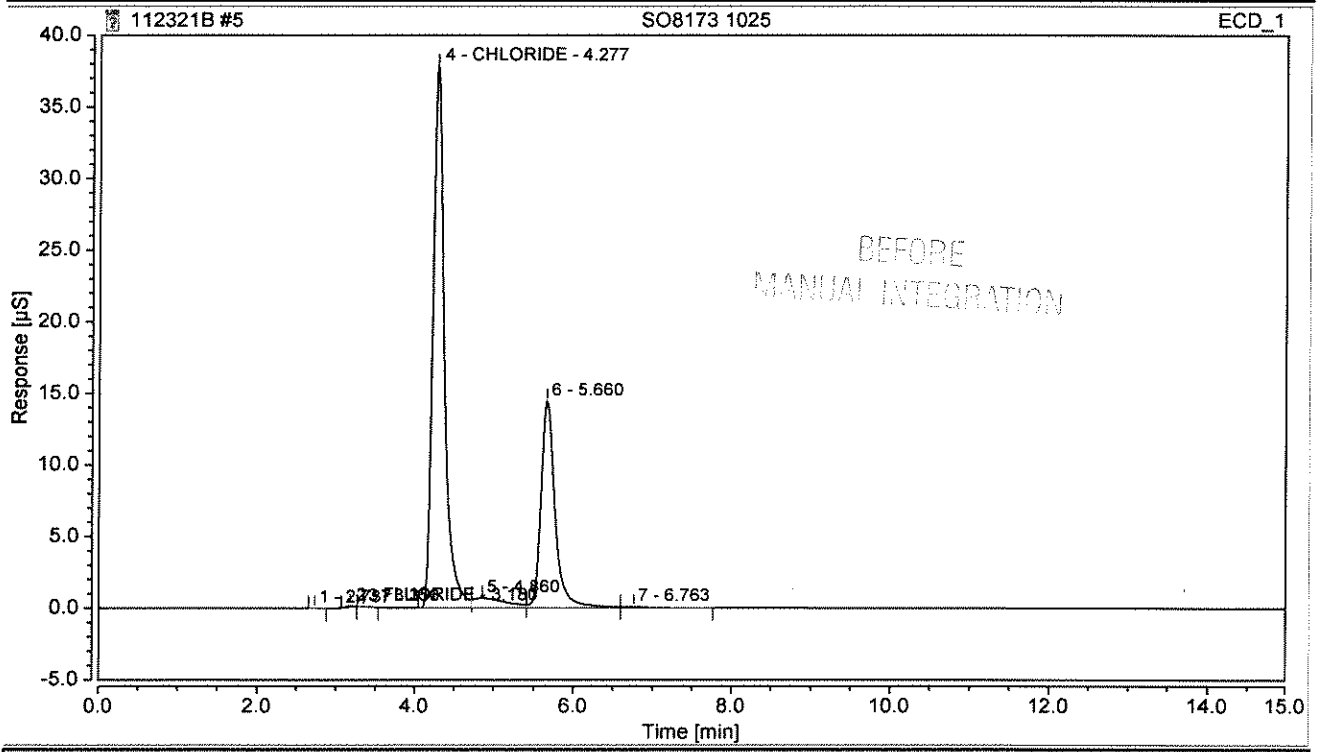
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	CHLORIDE	4.280	0.003	0.015	0.33	0.38	0.1039	-97.2288
2	NITRITE	5.030	0.004	0.013	0.45	0.32	0.0053	-99.5334
3	SULFATE	5.674	0.789	3.999	99.22	99.29	3.4242	-8.6871
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.795**	**4.028**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173 1025**	*Run Time (min):*	**14.99**
Vial Number:	**5**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 17:53**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

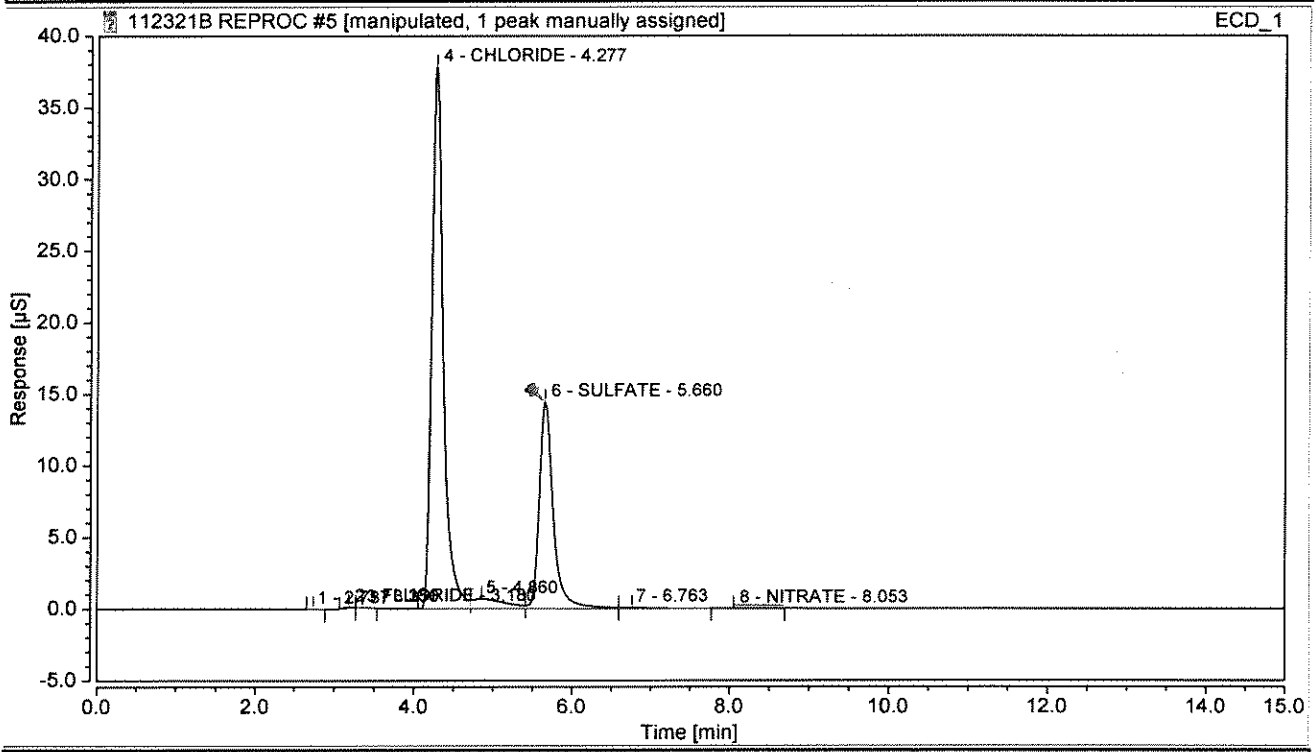
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.180	0.008	0.075	0.08	0.14	0.0166	n.a.
4	CHLORIDE	4.277	6.366	37.829	65.46	71.21	20.7541	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.374**	**37.904**	**65.54**	**71.35**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-3**	*Run Time (min):*	**14.99**
Vial Number:	**5**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 17:53**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

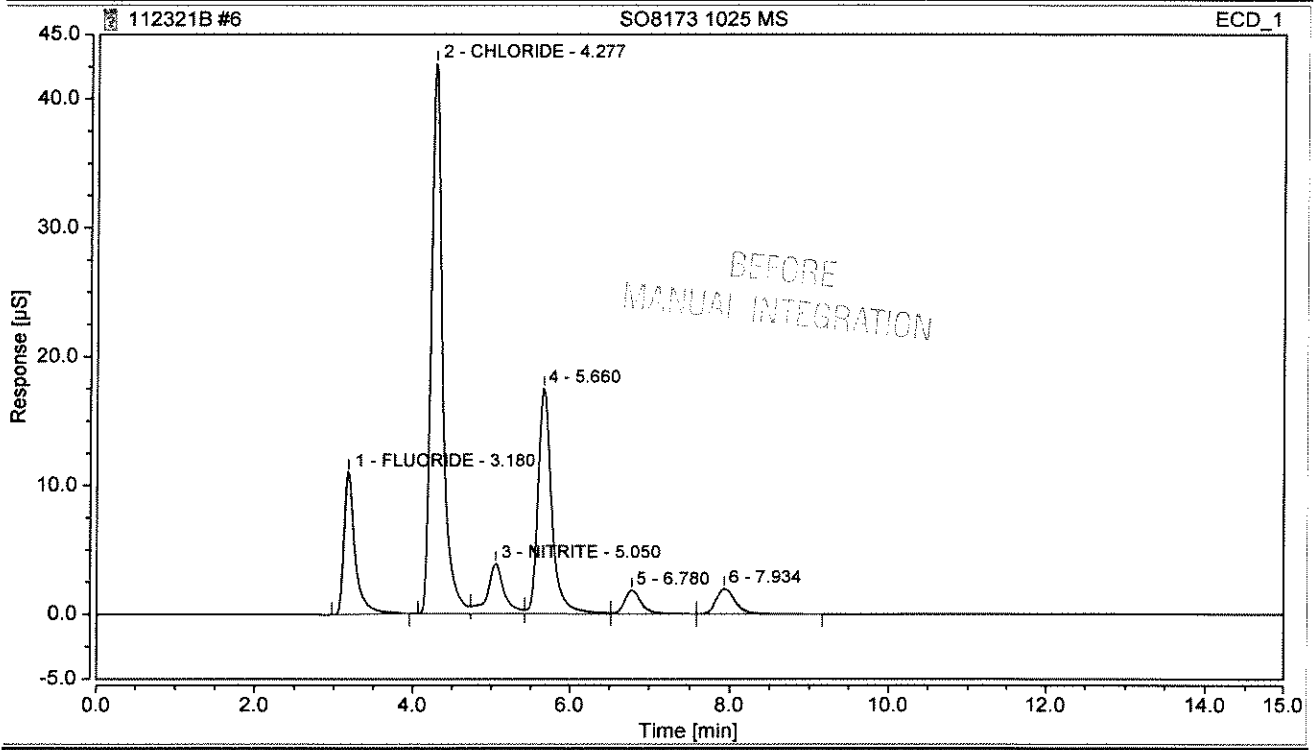
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.180	0.008	0.075	0.08	0.14	0.0166	n.a.
4	CHLORIDE	4.277	6.366	37.829	64.51	70.91	20.7541	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	SULFATE	5.660	2.985	14.434	30.25	27.06	12.9536	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8	NITRATE	8.053	0.142	0.221	1.44	0.41	0.2289	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**9.501**	**52.559**	**96.28**	**98.52**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173 1025 MS**	*Run Time (min):*	**14.98**
Vial Number:	**6**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 18:14**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

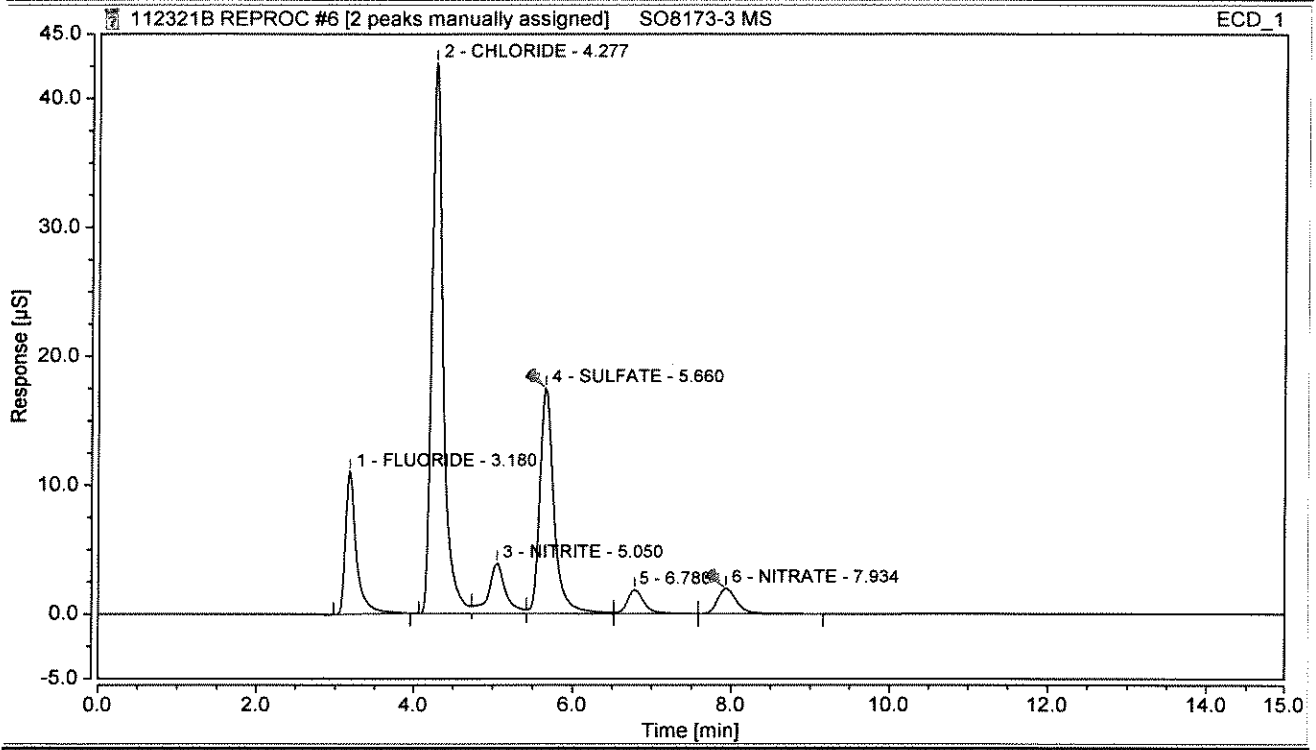
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.180	1.818	11.053	12.49	14.00	3.7171	n.a.
2	CHLORIDE	4.277	7.160	42.702	49.21	54.10	23.3326	n.a.
3	NITRITE	5.050	0.962	3.888	6.61	4.93	1.4372	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**9.940**	**57.643**	**68.32**	**73.02**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-3 MS**	*Run Time (min):*	**14.98**
Vial Number:	**6**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 18:14**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

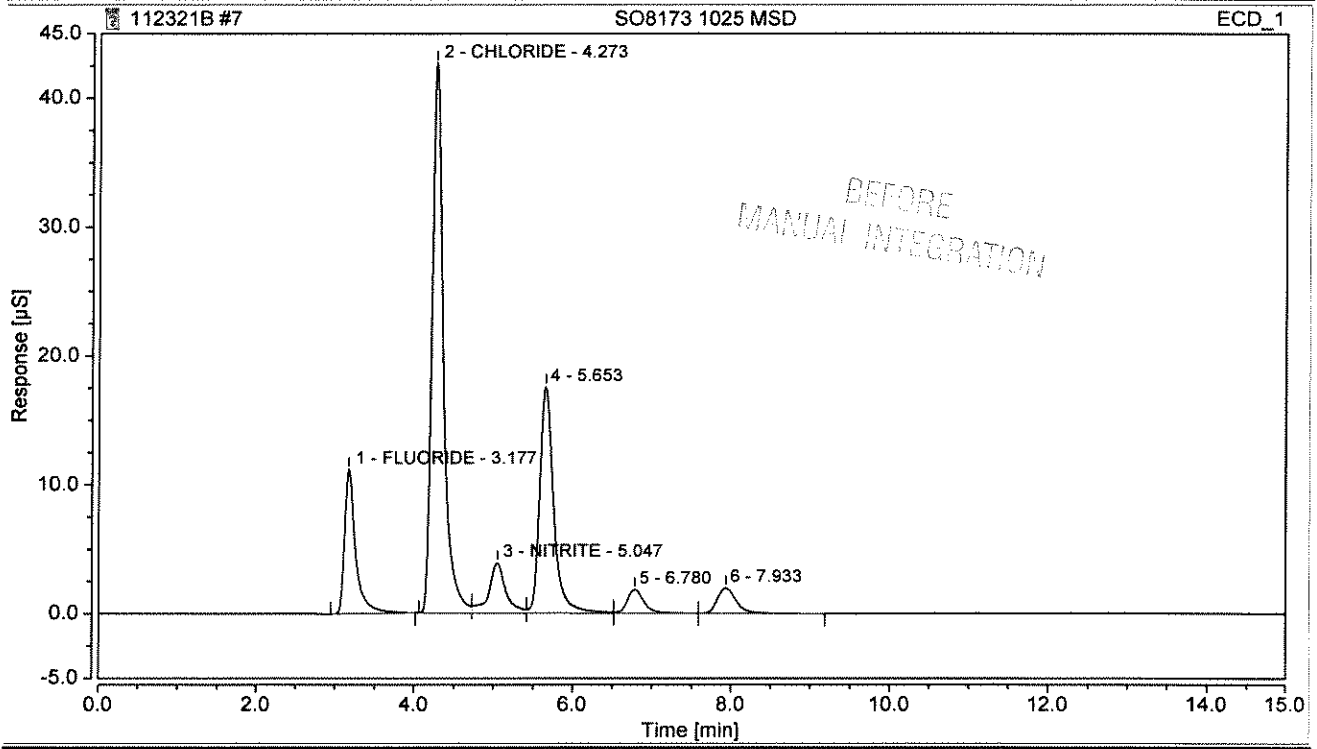
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.180	1.818	11.053	12.49	14.00	3.7171	n.a.
2	CHLORIDE	4.277	7.160	42.702	49.21	54.10	23.3326	n.a.
3	NITRITE	5.050	0.962	3.888	6.61	4.93	1.4372	n.a.
4	SULFATE	5.660	3.604	17.489	24.77	22.16	15.6387	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	NITRATE	7.934	0.553	1.965	3.80	2.49	0.7577	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**14.096**	**77.096**	**96.88**	**97.67**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173 1025 MSD**	*Run Time (min):*	**14.98**
Vial Number:	**7**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 18:35**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

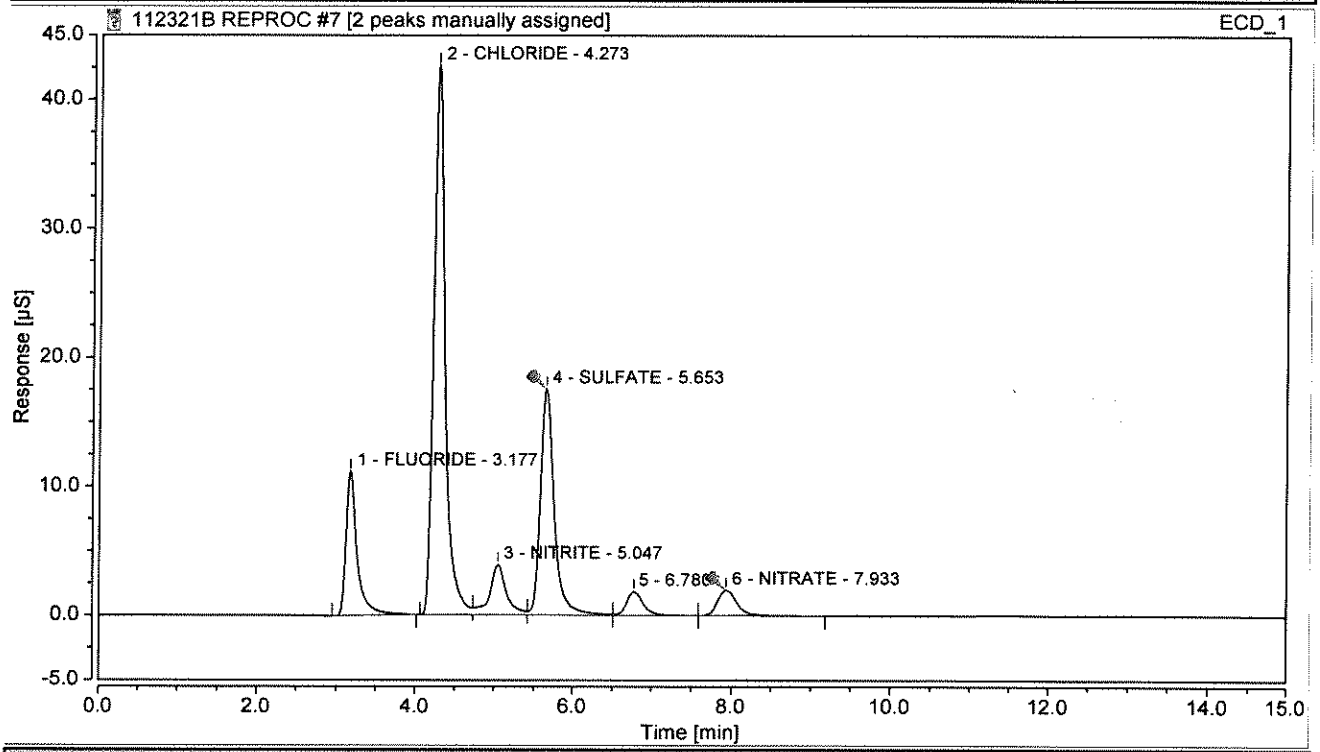
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.177	1.845	11.188	12.65	14.14	3.7720	n.a.
2	CHLORIDE	4.273	7.162	42.633	49.10	53.90	23.3366	n.a.
3	NITRITE	5.047	0.965	3.906	6.62	4.94	1.4426	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**9.972**	**57.727**	**68.37**	**72.98**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-3 MSD**	*Run Time (min):*	**14.98**
Vial Number:	**7**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 18:35**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

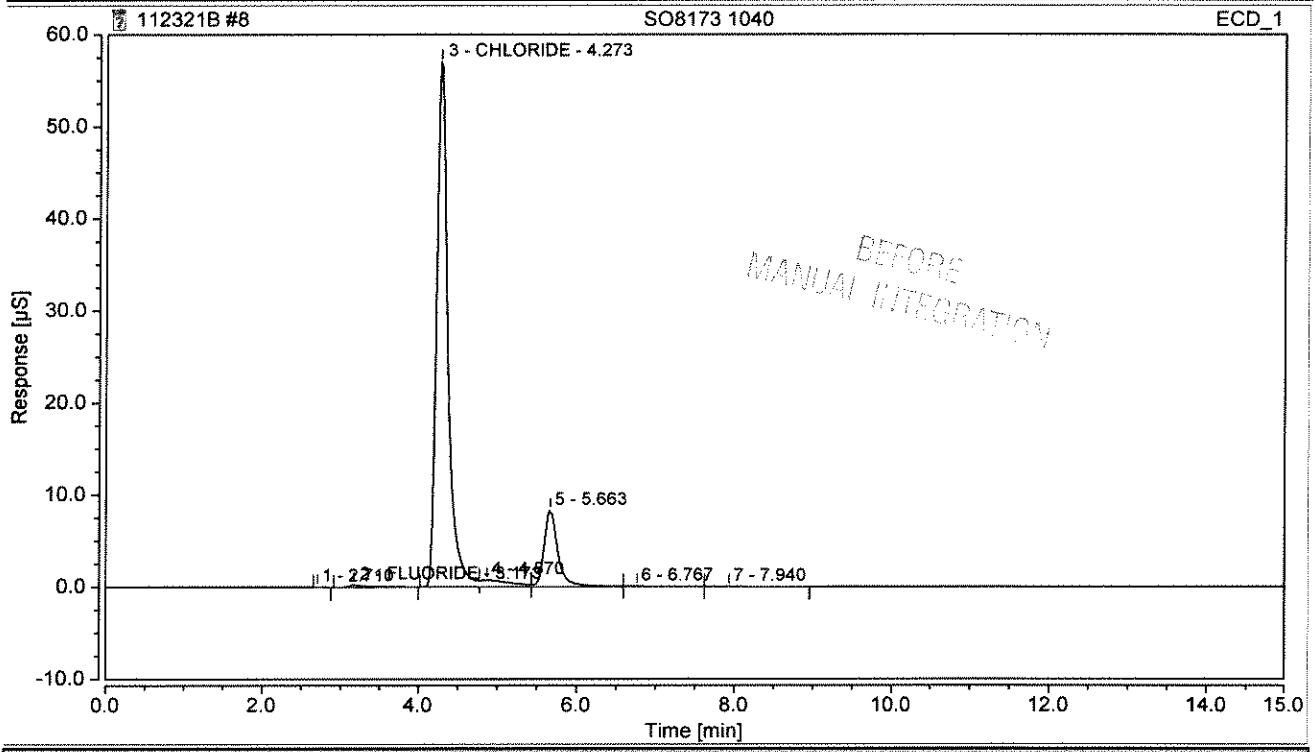
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.177	1.845	11.188	12.65	14.14	3.7720	n.a.
2	CHLORIDE	4.273	7.162	42.633	49.10	53.90	23.3366	n.a.
3	NITRITE	5.047	0.965	3.906	6.62	4.94	1.4426	n.a.
4	SULFATE	5.653	3.607	17.554	24.73	22.19	15.6557	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	NITRATE	7.933	0.554	1.972	3.80	2.49	0.7596	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**14.133**	**77.253**	**96.90**	**97.67**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173 1040**	*Run Time (min):*	**14.99**
Vial Number:	**8**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 18:56**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

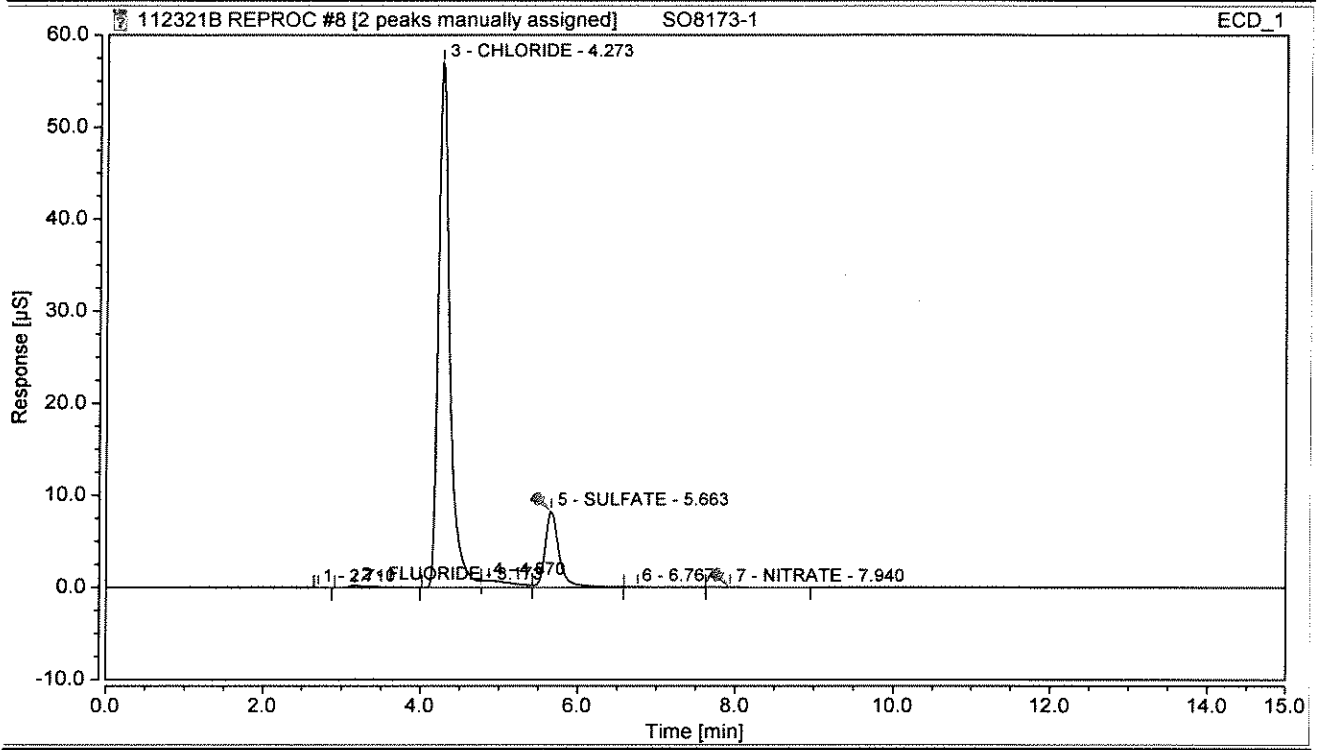
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.173	0.067	0.233	0.57	0.35	0.1376	n.a.
3	CHLORIDE	4.273	9.649	57.010	81.96	85.95	31.4090	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**9.716**	**57.243**	**82.53**	**86.31**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-1**	*Run Time (min):*	**14.99**
Vial Number:	**8**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 18:56**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

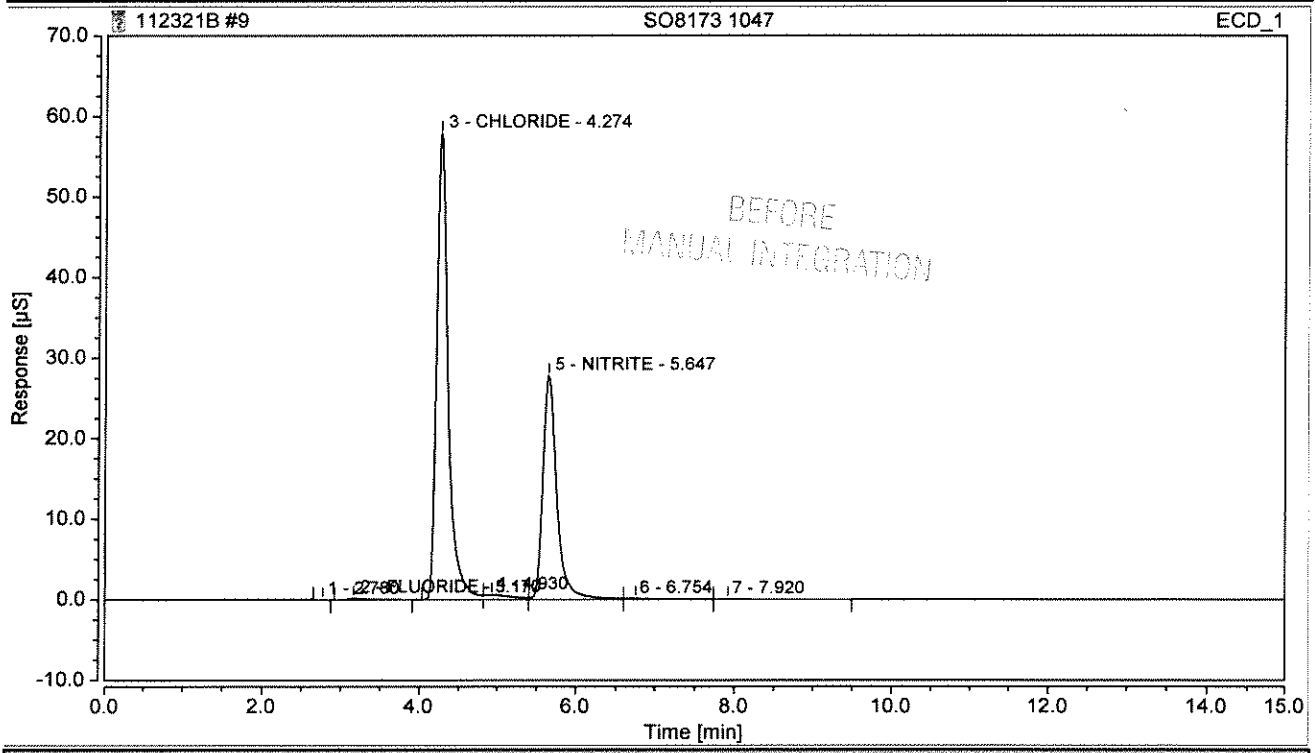
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.173	0.067	0.233	0.57	0.35	0.1376	n.a.
3	CHLORIDE	4.273	9.649	57.010	81.96	85.95	31.4090	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	SULFATE	5.663	1.700	8.282	14.44	12.49	7.3765	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	NITRATE	7.940	0.010	0.018	0.08	0.03	0.0580	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.426**	**65.543**	**97.05**	**98.82**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173 1047**	*Run Time (min):*	**14.98**
Vial Number:	**9**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 19:17**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

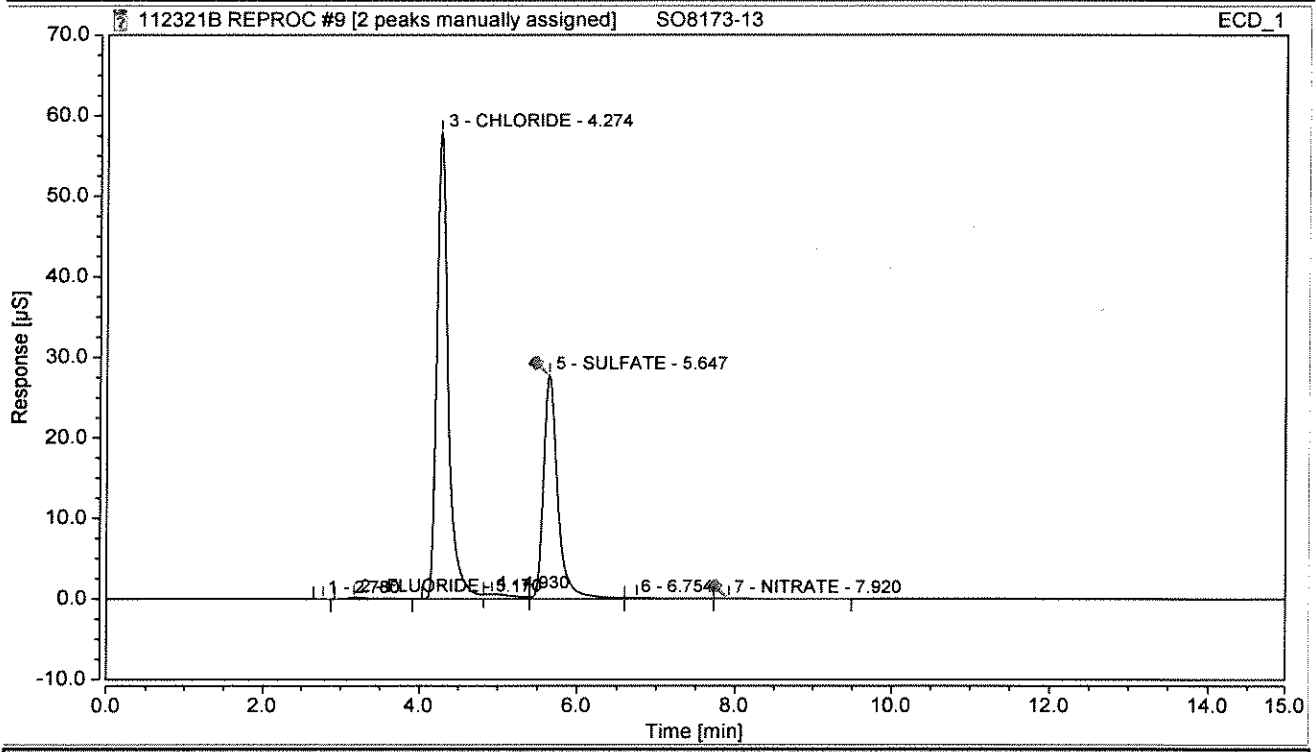
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.170	0.047	0.181	0.30	0.21	0.0970	n.a.
3	CHLORIDE	4.274	9.896	57.889	62.01	66.91	32.2101	n.a.
5	NITRITE	5.647	5.725	27.756	35.88	32.08	8.5567	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**15.669**	**85.827**	**98.19**	**99.21**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-13**	*Run Time (min):*	**14.98**
Vial Number:	**9**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 19:17**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

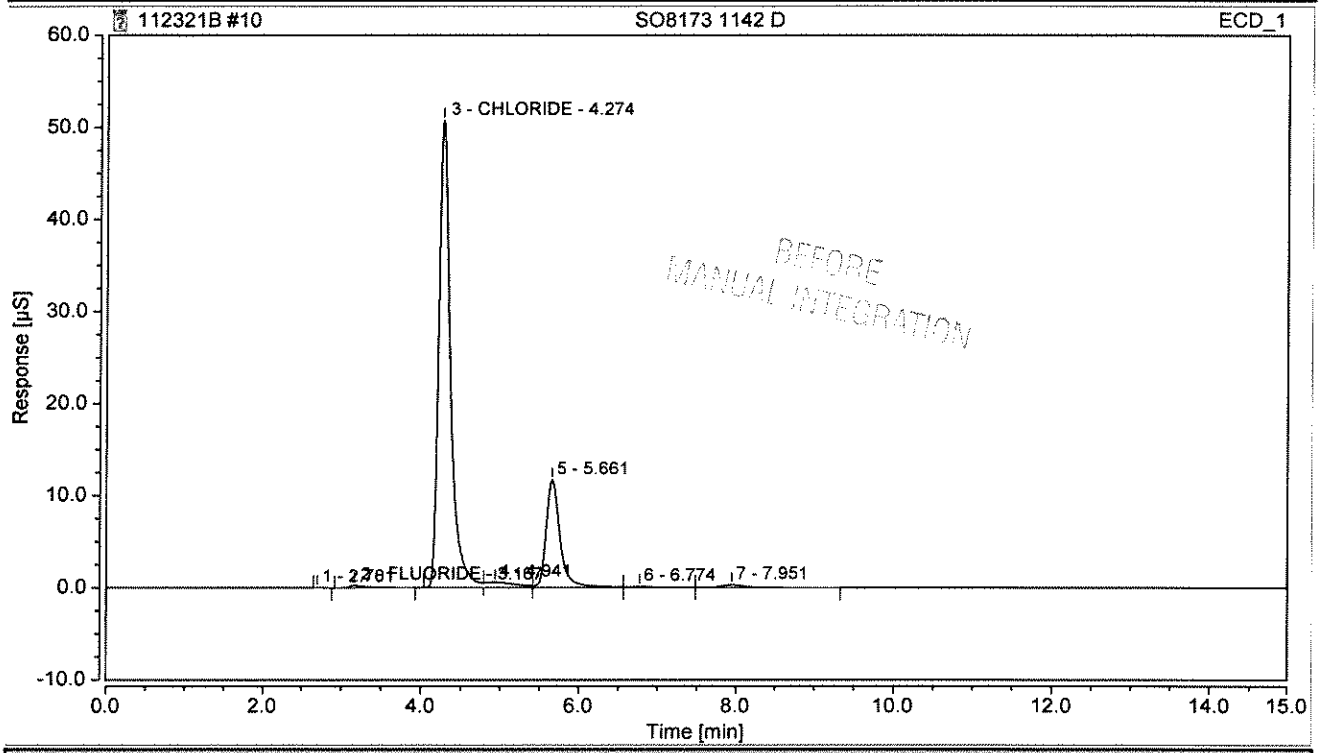
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.170	0.047	0.181	0.30	0.21	0.0970	n.a.
3	CHLORIDE	4.274	9.896	57.889	62.01	66.91	32.2101	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	SULFATE	5.647	5.725	27.756	35.88	32.08	24.8468	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	NITRATE	7.920	0.011	0.019	0.07	0.02	0.0597	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**15.680**	**85.845**	**98.26**	**99.23**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173 1142 D**	*Run Time (min):*	**14.98**
Vial Number:	**10**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 19:37**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

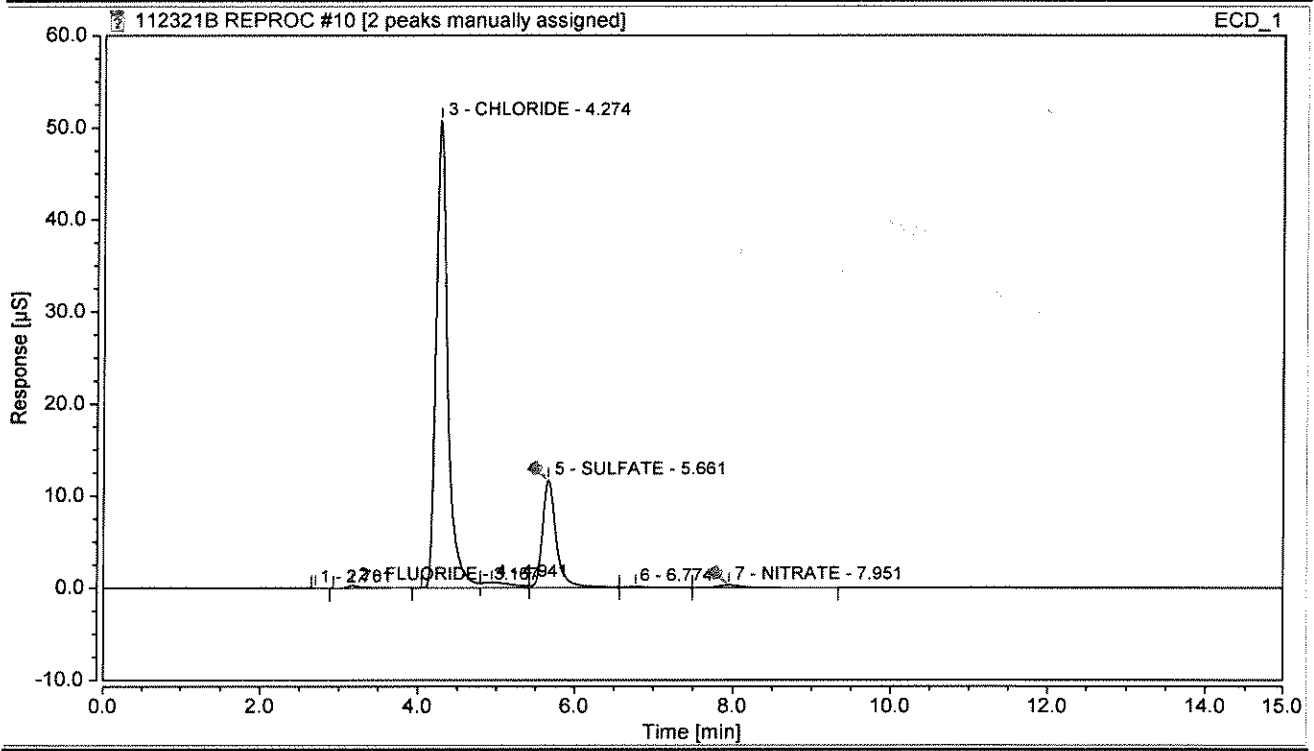
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.167	0.064	0.286	0.56	0.45	0.1305	n.a.
3	CHLORIDE	4.274	8.658	50.725	75.36	79.71	28.1929	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.722**	**51.011**	**75.92**	**80.16**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-17**	*Run Time (min):*	**14.98**
Vial Number:	**10**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 19:37**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

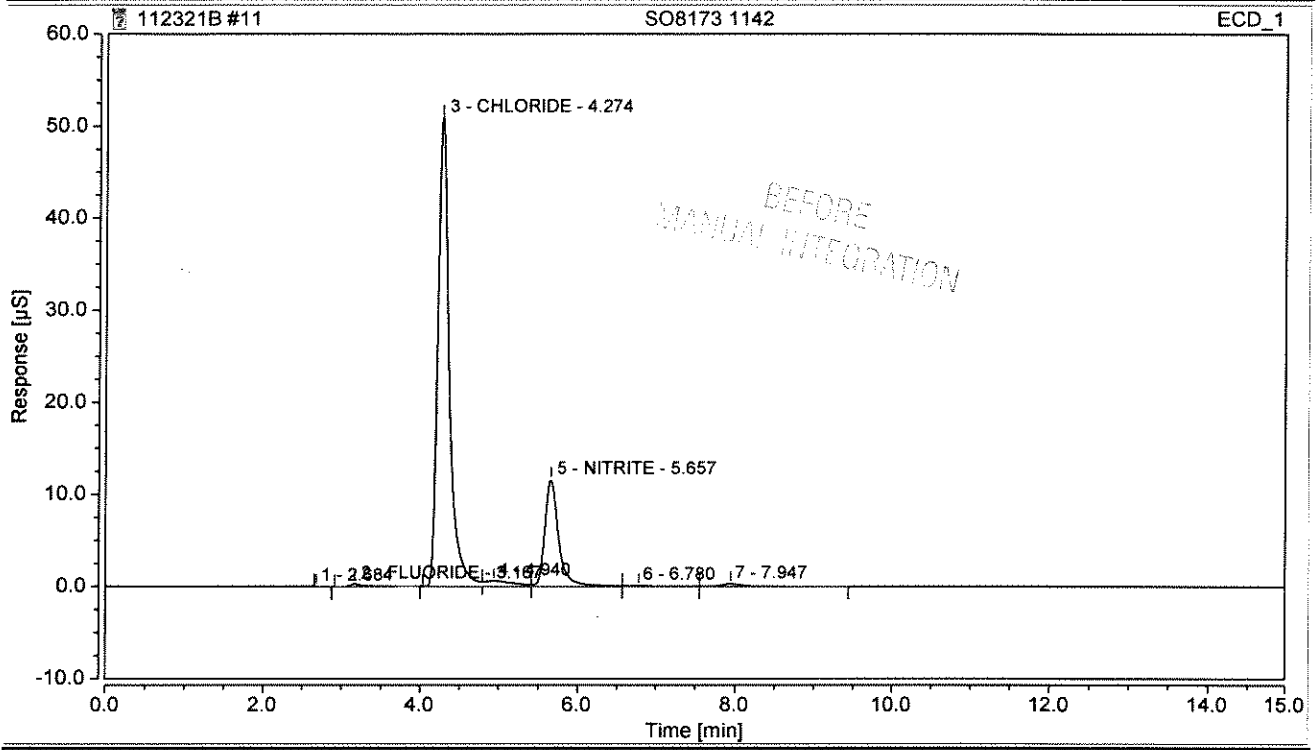
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.167	0.064	0.286	0.56	0.45	0.1305	n.a.
3	CHLORIDE	4.274	8.658	50.725	75.36	79.71	28.1929	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	SULFATE	5.661	2.384	11.666	20.75	18.33	10.3465	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	NITRATE	7.951	0.091	0.290	0.79	0.46	0.1631	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.197**	**62.967**	**97.46**	**98.95**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173 1142**	*Run Time (min):*	**14.98**
Vial Number:	**11**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 19:58**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

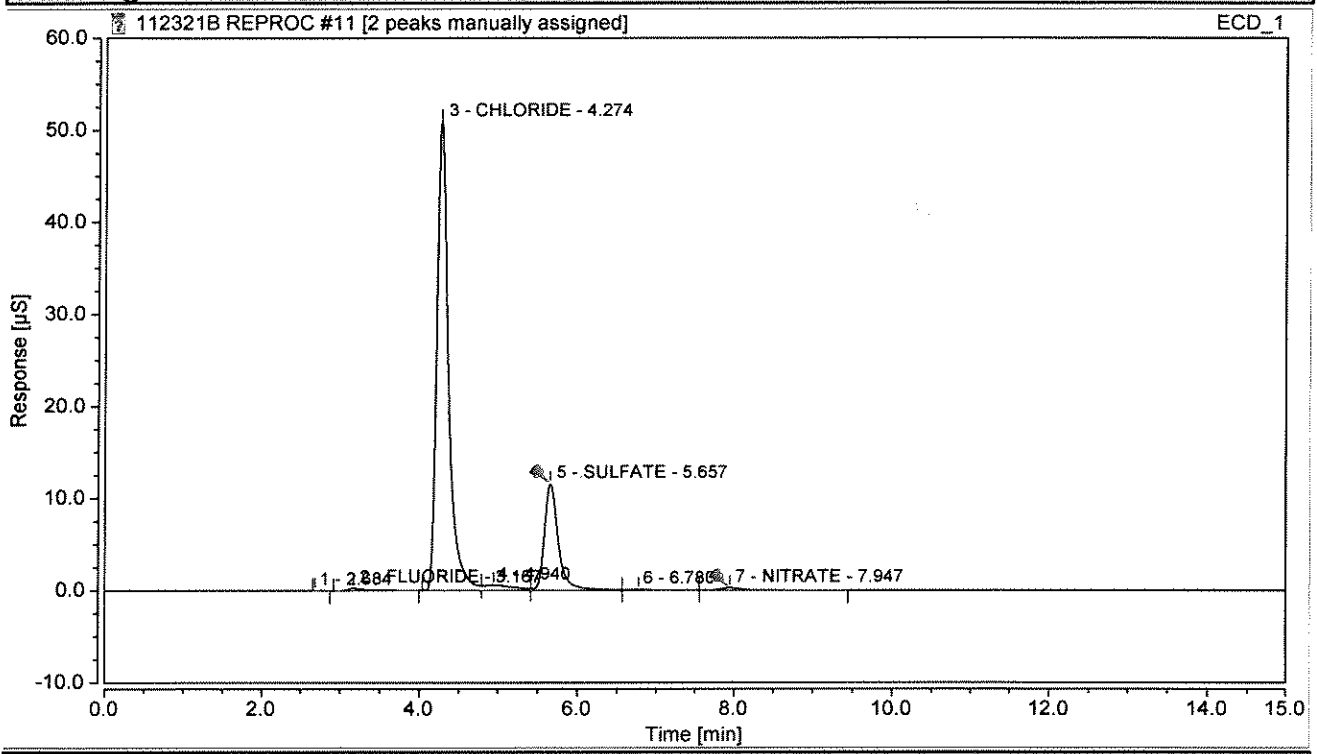
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.167	0.065	0.284	0.56	0.45	0.1324	n.a.
3	CHLORIDE	4.274	8.698	50.901	75.59	79.91	28.3235	n.a.
5	NITRITE	5.657	2.372	11.591	20.62	18.20	3.5456	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.135**	**62.776**	**96.77**	**98.55**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-15**	*Run Time (min):*	**14.98**
Vial Number:	**11**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 19:58**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

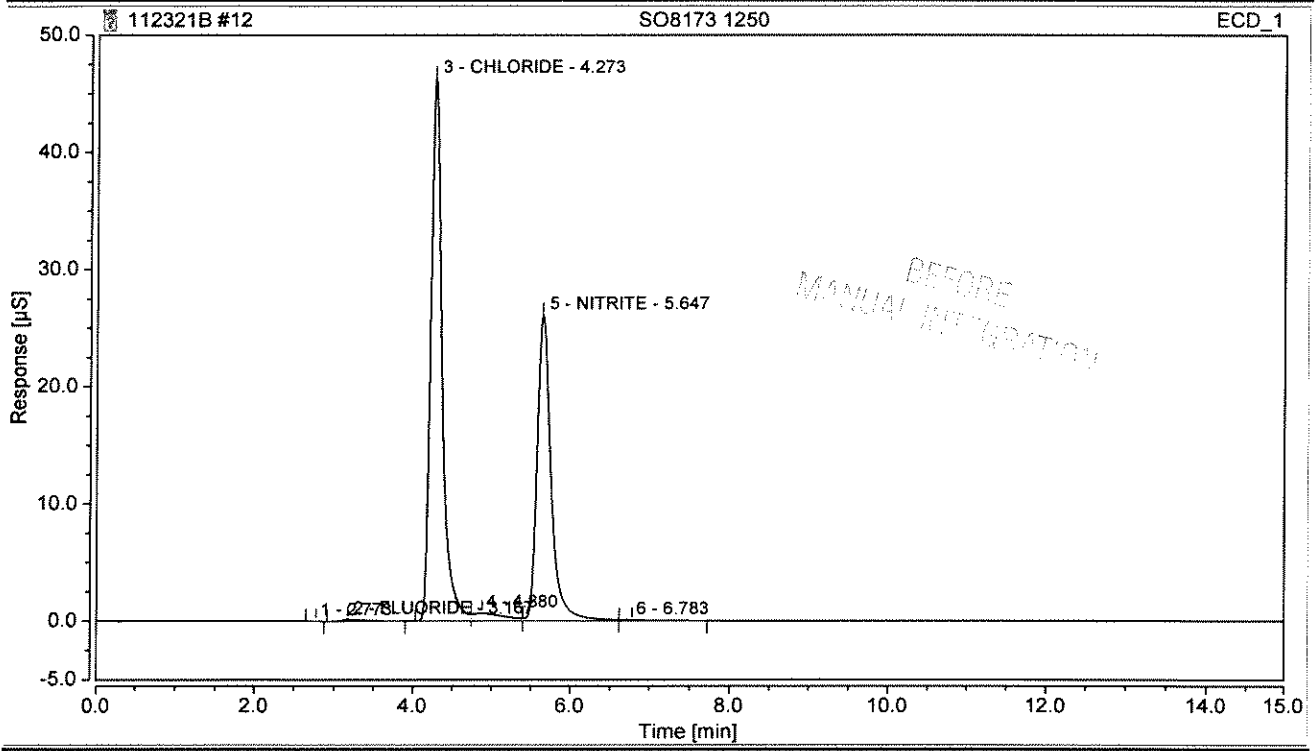
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.167	0.065	0.284	0.56	0.45	0.1324	n.a.
3	CHLORIDE	4.274	8.698	50.901	75.59	79.91	28.3235	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	SULFATE	5.657	2.372	11.591	20.62	18.20	10.2955	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	NITRATE	7.947	0.083	0.260	0.72	0.41	0.1521	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.218**	**63.036**	**97.49**	**98.96**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173 1250**	*Run Time (min):*	**14.98**
Vial Number:	**12**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 20:19**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

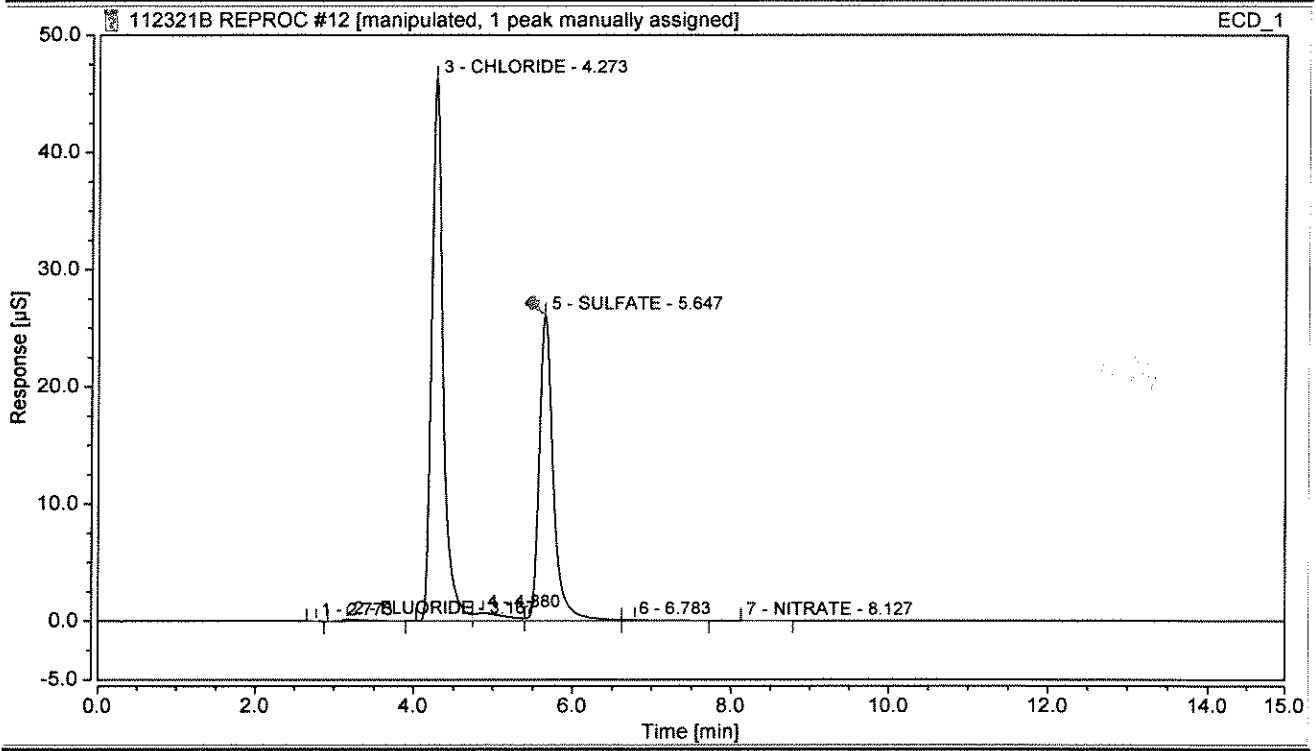
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.167	0.050	0.163	0.37	0.22	0.1025	n.a.
3	CHLORIDE	4.273	7.818	46.299	57.54	63.17	25.4681	n.a.
5	NITRITE	5.647	5.388	26.089	39.65	35.60	8.0520	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**13.256**	**72.552**	**97.56**	**98.99**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-7**	*Run Time (min):*	**14.98**
Vial Number:	**12**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 20:19**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

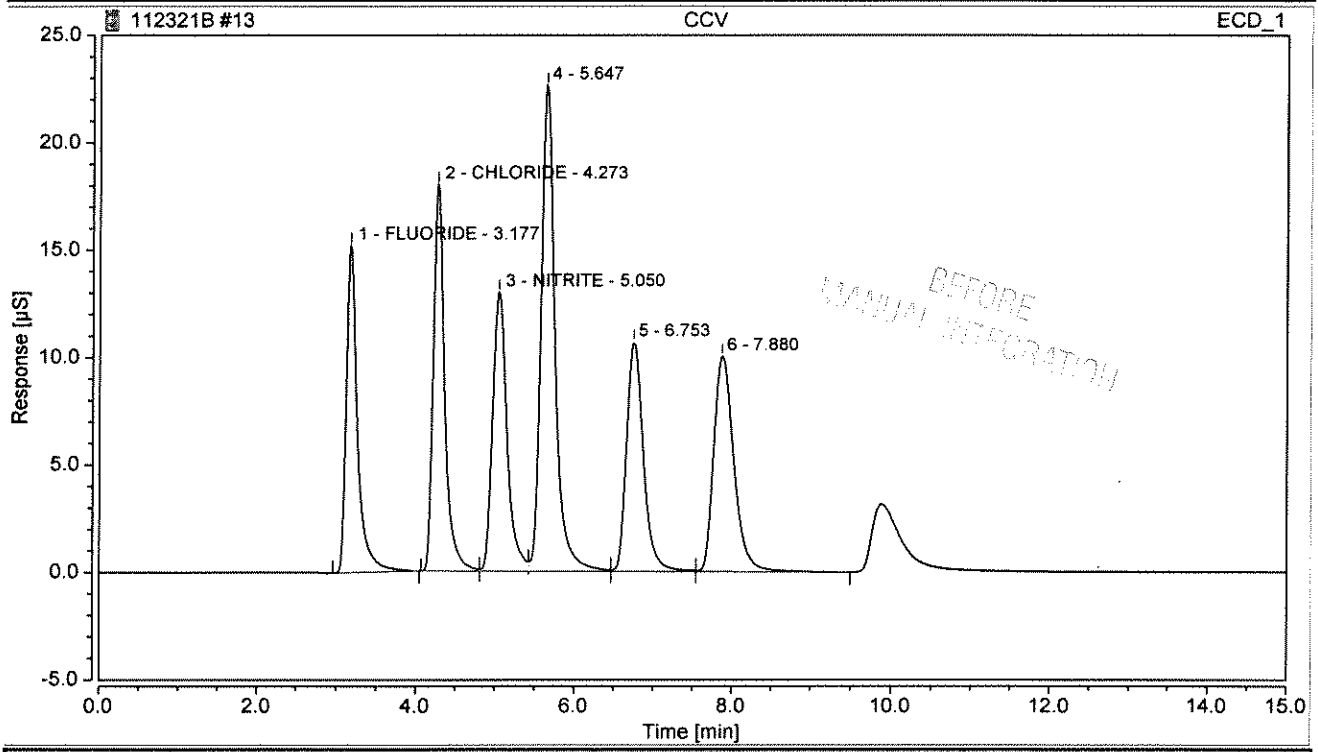
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.167	0.050	0.163	0.37	0.22	0.1025	n.a.
3	CHLORIDE	4.273	7.818	46.299	57.54	63.17	25.4681	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	SULFATE	5.647	5.388	26.089	39.65	35.60	23.3812	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	NITRATE	8.127	0.000	0.000	0.00	0.00	0.0461	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**13.257**	**72.552**	**97.56**	**98.99**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.99**
Vial Number:	**13**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 20:40**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

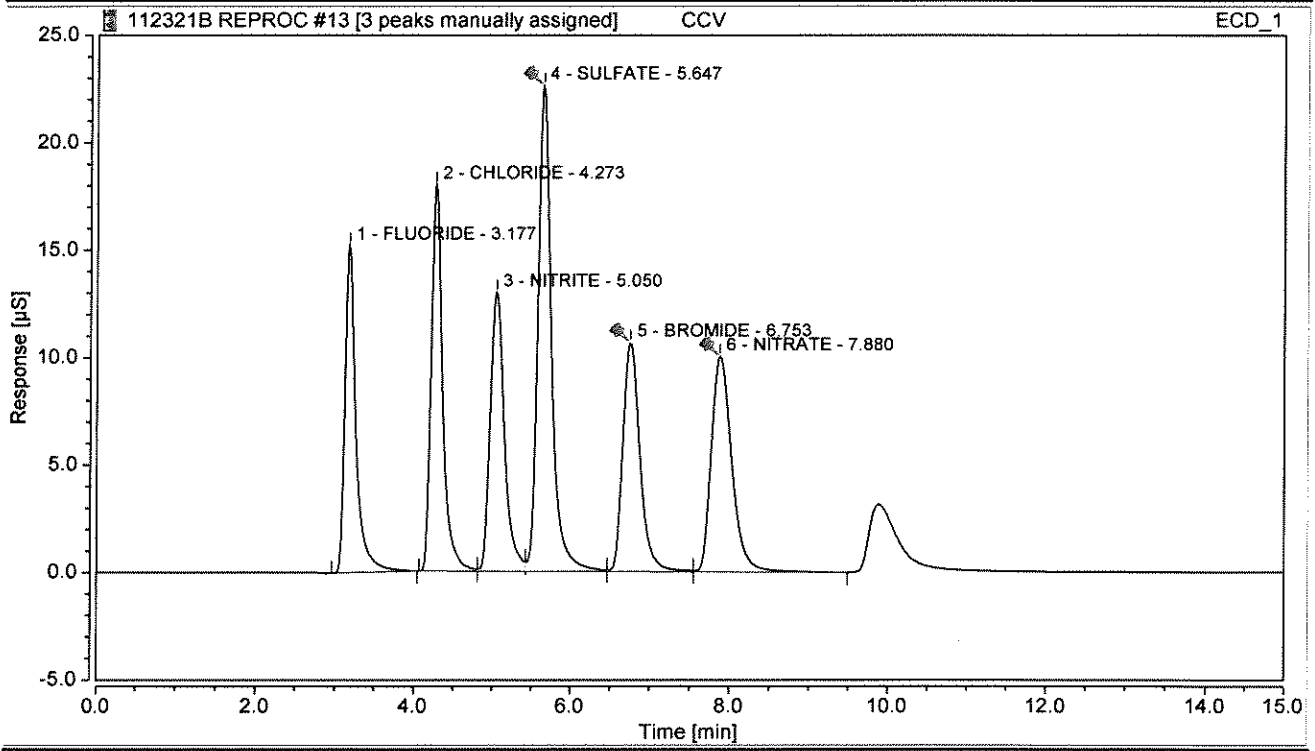
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.177	2.489	15.250	13.47	17.02	5.0884	1.7671
2	CHLORIDE	4.273	3.034	18.005	16.42	20.10	9.9403	-0.5971
3	NITRITE	5.050	2.695	12.985	14.59	14.49	4.0282	0.7057
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.217**	**46.239**	**44.47**	**51.61**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.99**
Vial Number:	**13**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 20:40**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

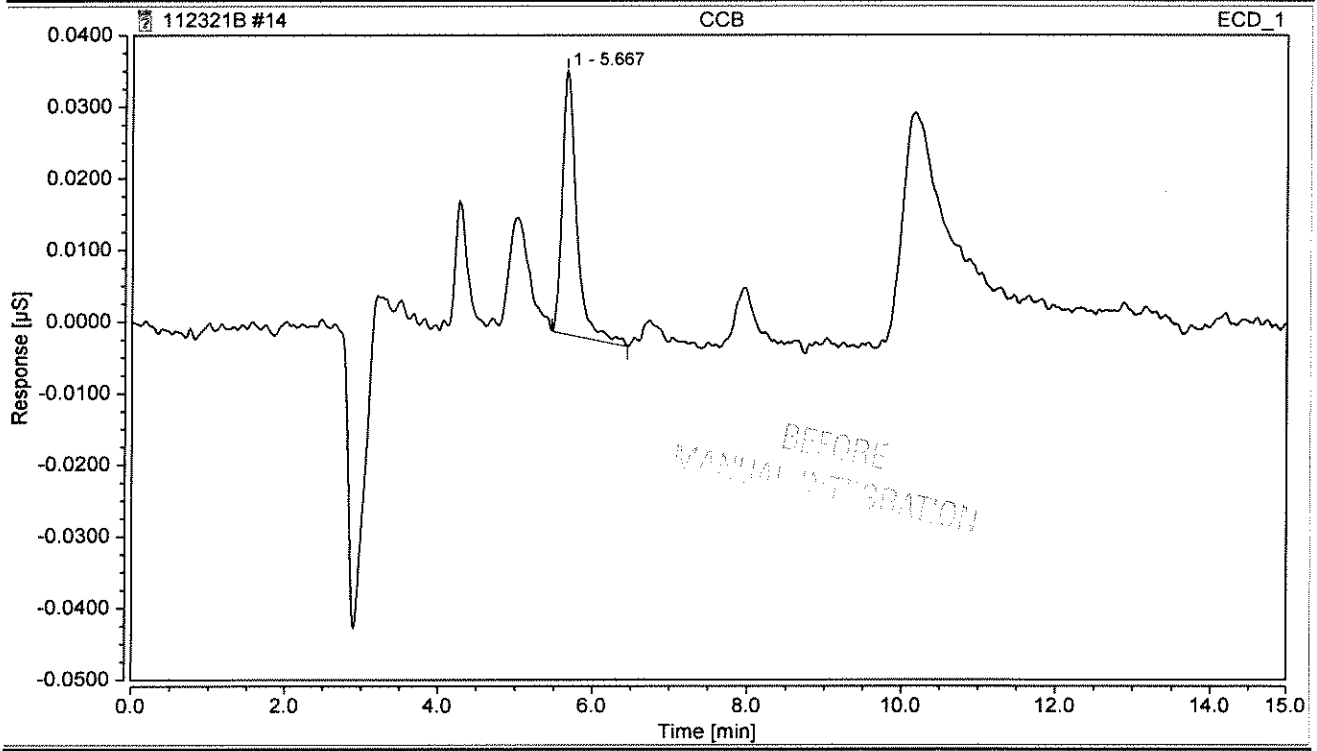
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.177	2.489	15.250	13.47	17.02	5.0884	1.7671
2	CHLORIDE	4.273	3.034	18.005	16.42	20.10	9.9403	-0.5971
3	NITRITE	5.050	2.695	12.985	14.59	14.49	4.0282	0.7057
4	SULFATE	5.647	4.603	22.634	24.91	25.26	19.9772	-0.1142
5	BROMIDE	6.753	2.665	10.677	14.42	11.92	16.4615	-17.6927
6	NITRATE	7.880	2.992	10.042	16.19	11.21	3.9010	-2.4738
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**18.478**	**89.591**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.98**
Vial Number:	**14**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 21:01**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

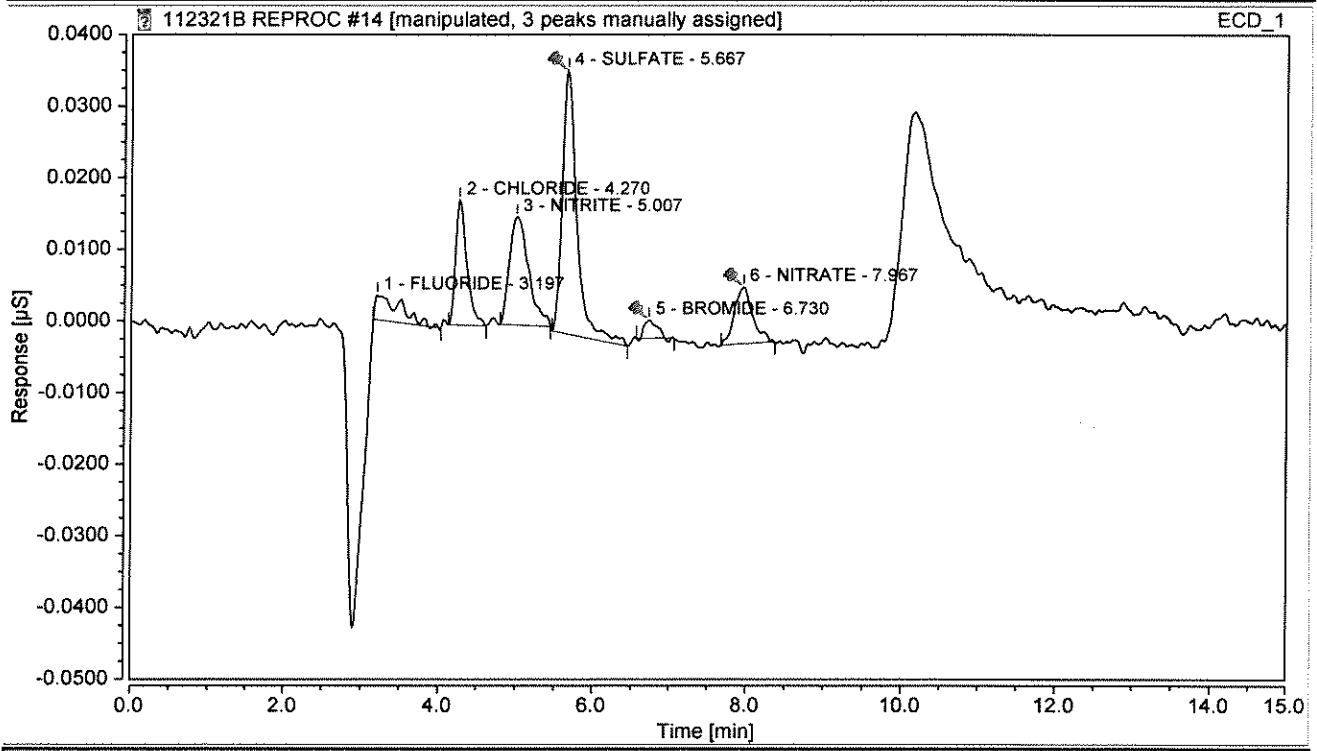
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.98**
Vial Number:	**14**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 21:01**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

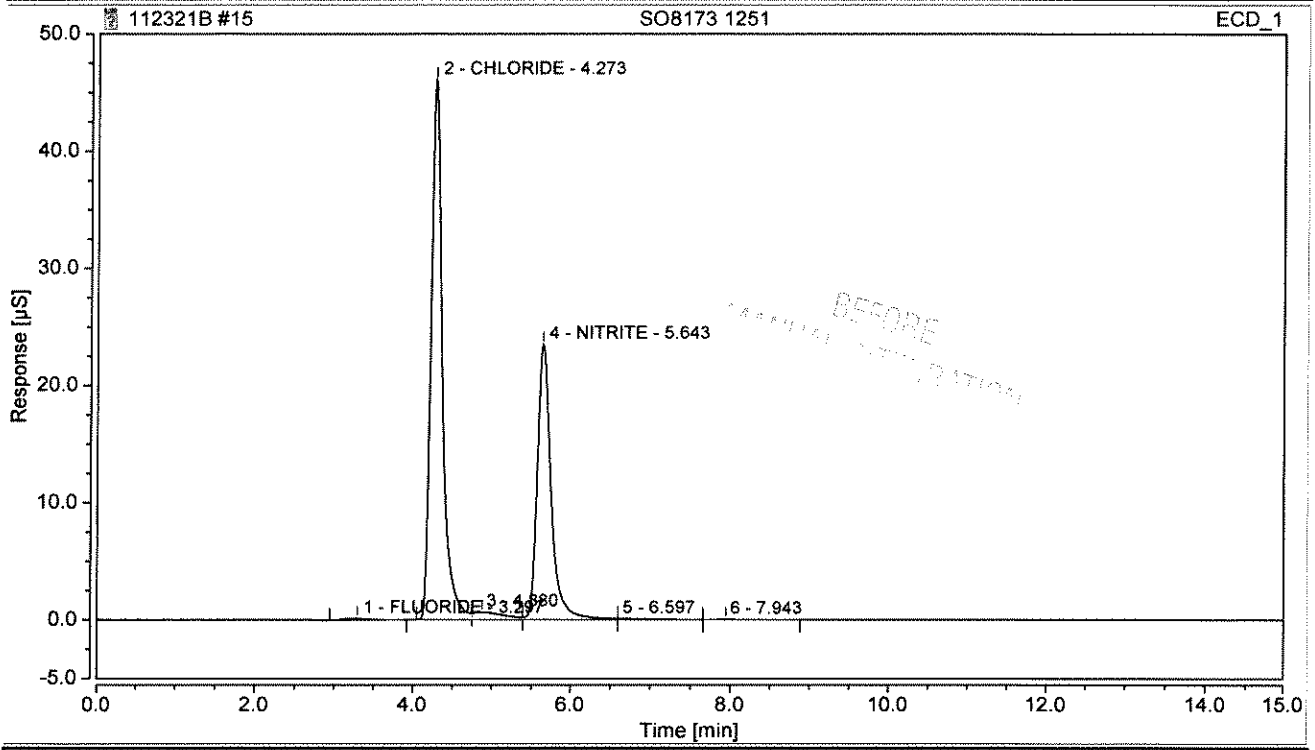
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.197	0.001	0.003	6.89	4.12	0.0027	n.a.
2	CHLORIDE	4.270	0.003	0.017	15.46	20.97	0.1050	n.a.
3	NITRITE	5.007	0.004	0.015	22.36	18.13	0.0065	n.a.
4	SULFATE	5.667	0.008	0.037	41.51	44.18	0.0350	n.a.
5	BROMIDE	6.730	0.000	0.003	2.42	3.07	0.0039	n.a.
6	NITRATE	7.967	0.002	0.008	11.36	9.53	0.0484	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.019**	**0.083**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173 1251**	*Run Time (min):*	**14.98**
Vial Number:	**15**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 21:21**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

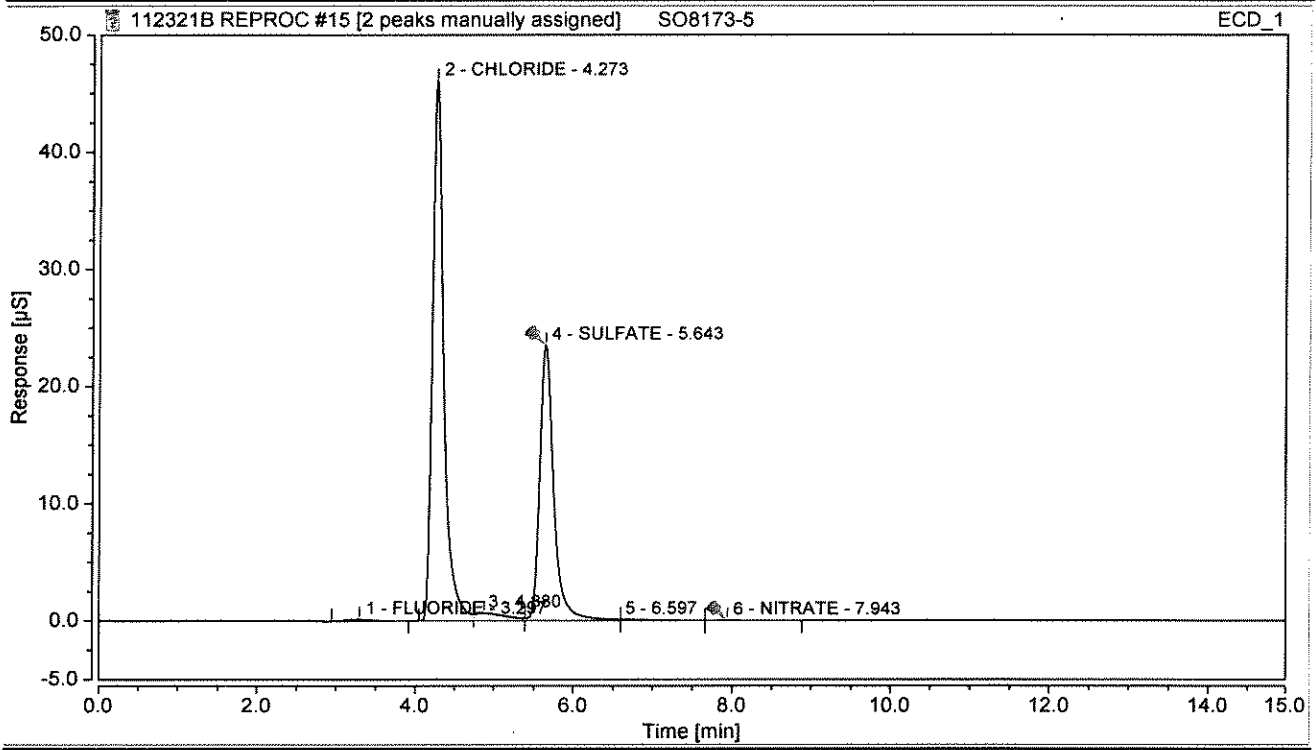
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.297	0.051	0.133	0.39	0.19	0.1047	n.a.
2	CHLORIDE	4.273	7.752	46.067	59.73	65.37	25.2520	n.a.
4	NITRITE	5.643	4.830	23.521	37.22	33.38	7.2179	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**12.633**	**69.720**	**97.34**	**98.94**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-5**	*Run Time (min):*	**14.98**
Vial Number:	**15**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 21:21**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

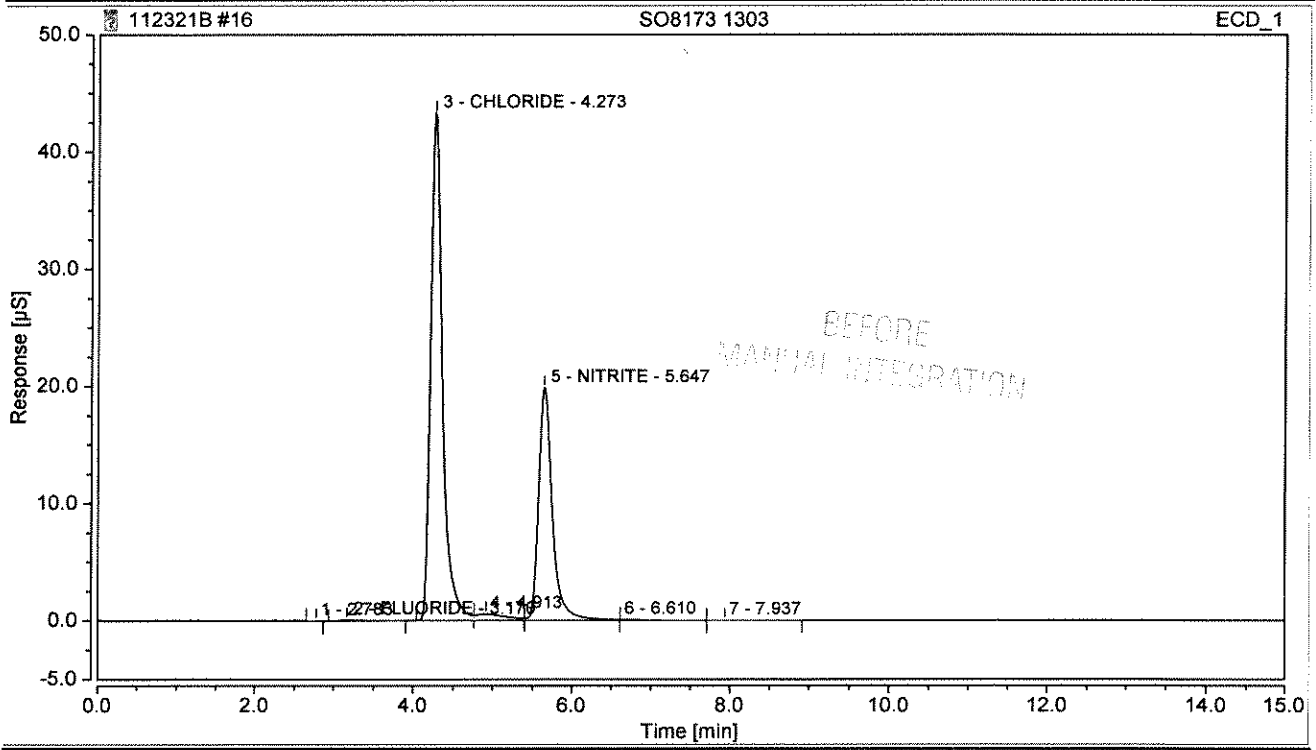
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.297	0.051	0.133	0.39	0.19	0.1047	n.a.
2	CHLORIDE	4.273	7.752	46.067	59.73	65.37	25.2520	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	SULFATE	5.643	4.830	23.521	37.22	33.38	20.9592	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	NITRATE	7.943	0.011	0.026	0.09	0.04	0.0602	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**12.644**	**69.746**	**97.43**	**98.98**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173 1303**	*Run Time (min):*	**14.98**
Vial Number:	**16**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 21:42**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

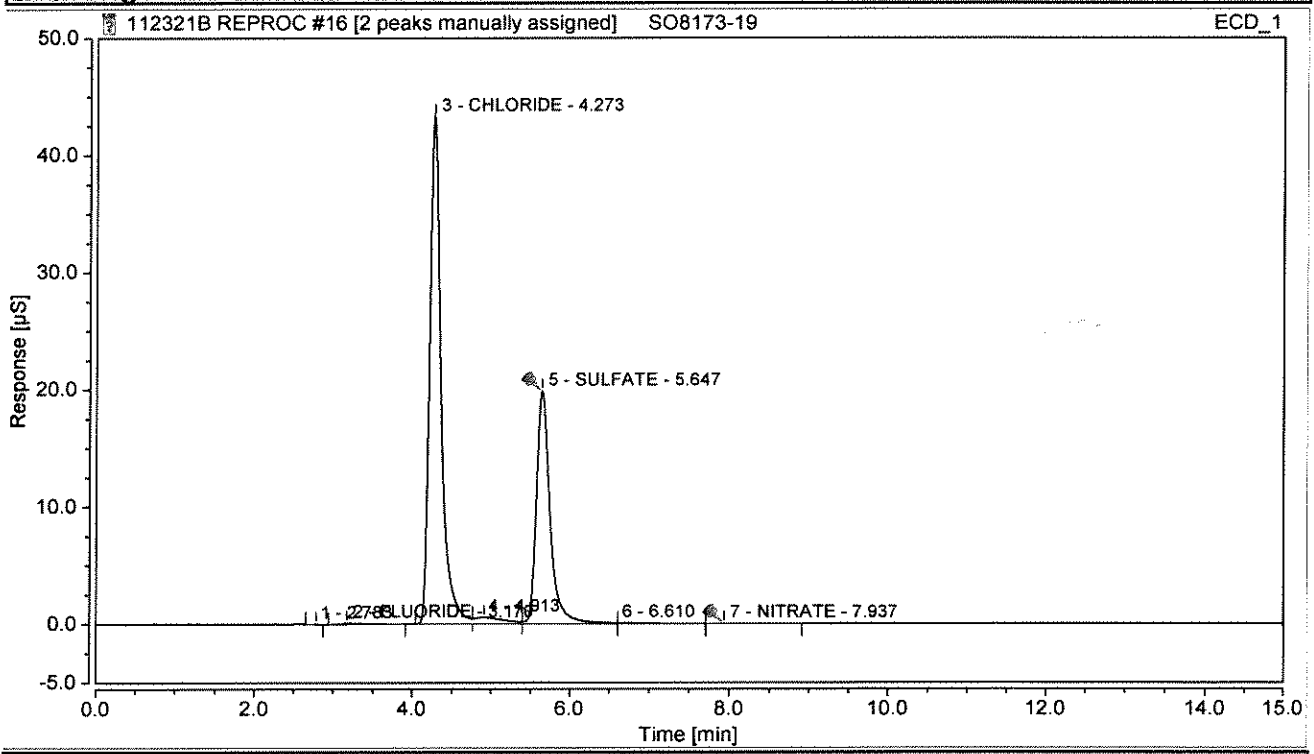
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.170	0.030	0.092	0.26	0.14	0.0614	n.a.
3	CHLORIDE	4.273	7.339	43.288	62.59	67.75	23.9135	n.a.
5	NITRITE	5.647	4.069	19.862	34.70	31.09	6.0808	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.438**	**63.242**	**97.54**	**98.98**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-19**	*Run Time (min):*	**14.98**
Vial Number:	**16**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 21:42**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

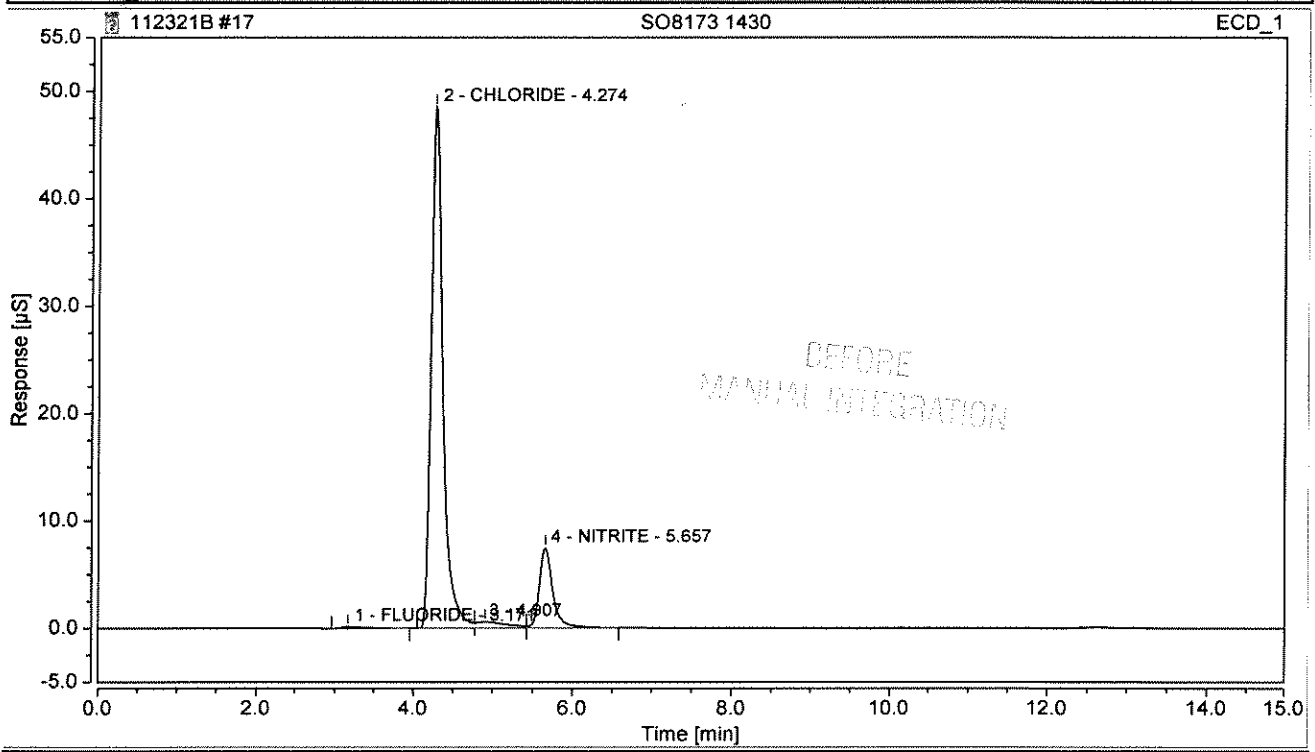
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.170	0.030	0.092	0.26	0.14	0.0614	n.a.
3	CHLORIDE	4.273	7.339	43.288	62.59	67.75	23.9135	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	SULFATE	5.647	4.069	19.862	34.70	31.09	17.6571	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	NITRATE	7.937	0.008	0.015	0.07	0.02	0.0555	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.446**	**63.257**	**97.61**	**99.01**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173 1430**	*Run Time (min):*	**14.98**
Vial Number:	**17**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 22:03**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

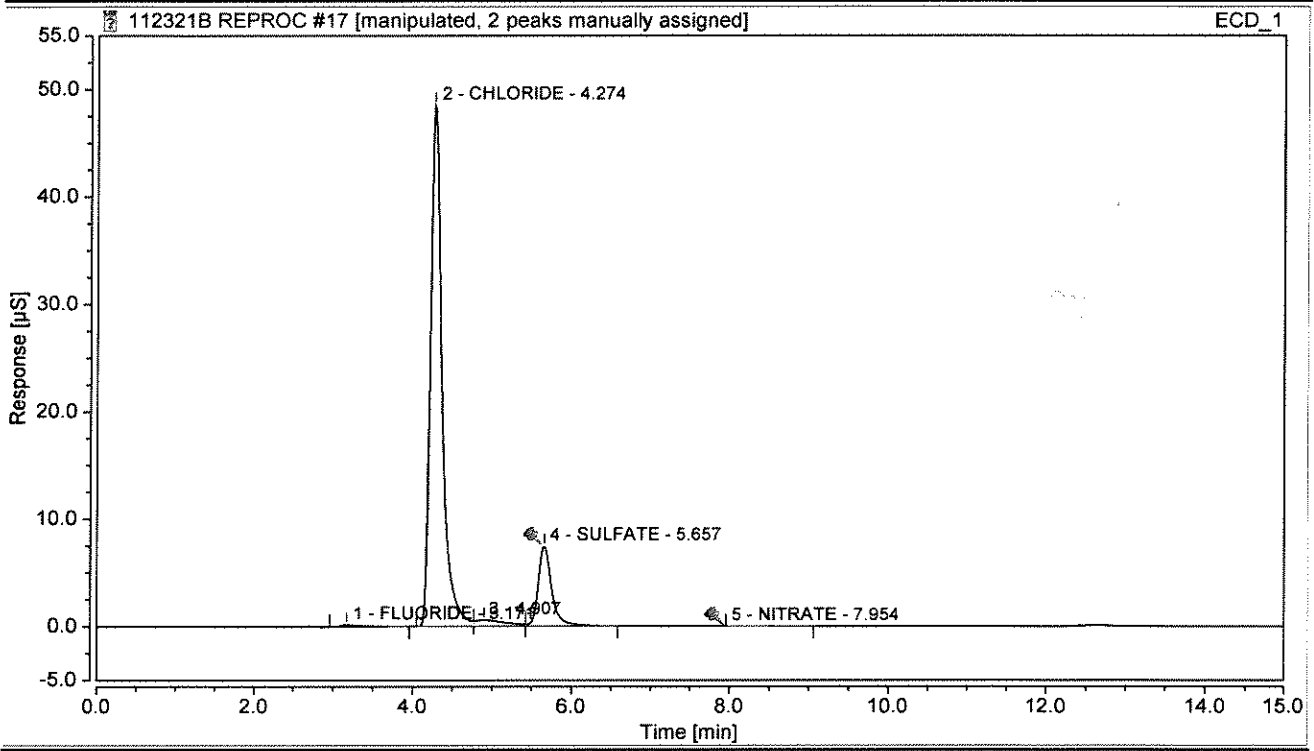
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.171	0.051	0.176	0.51	0.31	0.1047	n.a.
2	CHLORIDE	4.274	8.256	48.540	82.21	85.57	26.8883	n.a.
4	NITRITE	5.657	1.485	7.442	14.79	13.12	2.2197	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**9.793**	**56.158**	**97.51**	**99.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-9**	*Run Time (min):*	**14.98**
Vial Number:	**17**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 22:03**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

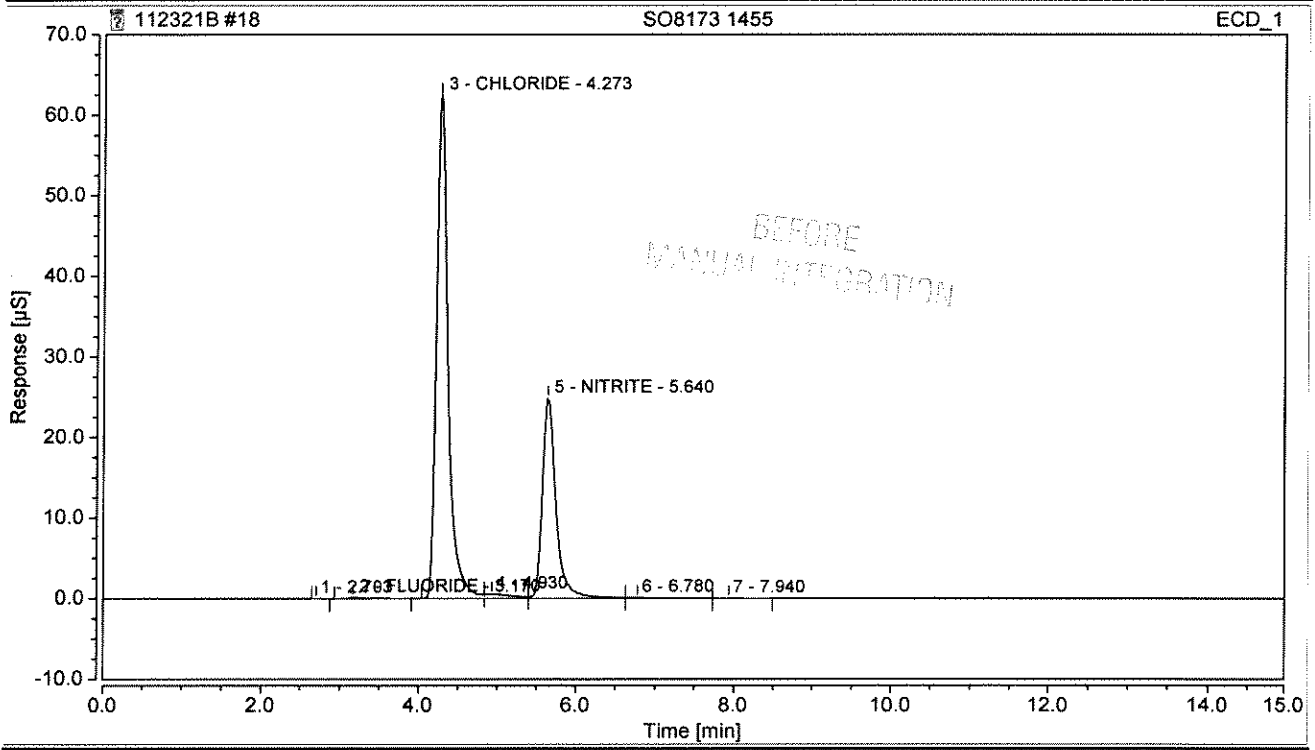
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.171	0.051	0.176	0.51	0.31	0.1047	n.a.
2	CHLORIDE	4.274	8.256	48.540	82.19	85.57	26.8883	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	SULFATE	5.657	1.485	7.442	14.78	13.12	6.4454	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	NITRATE	7.954	0.003	0.000	0.03	0.00	0.0495	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**9.796**	**56.158**	**97.51**	**99.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173 1455**	*Run Time (min):*	**14.97**
Vial Number:	**18**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 22:24**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

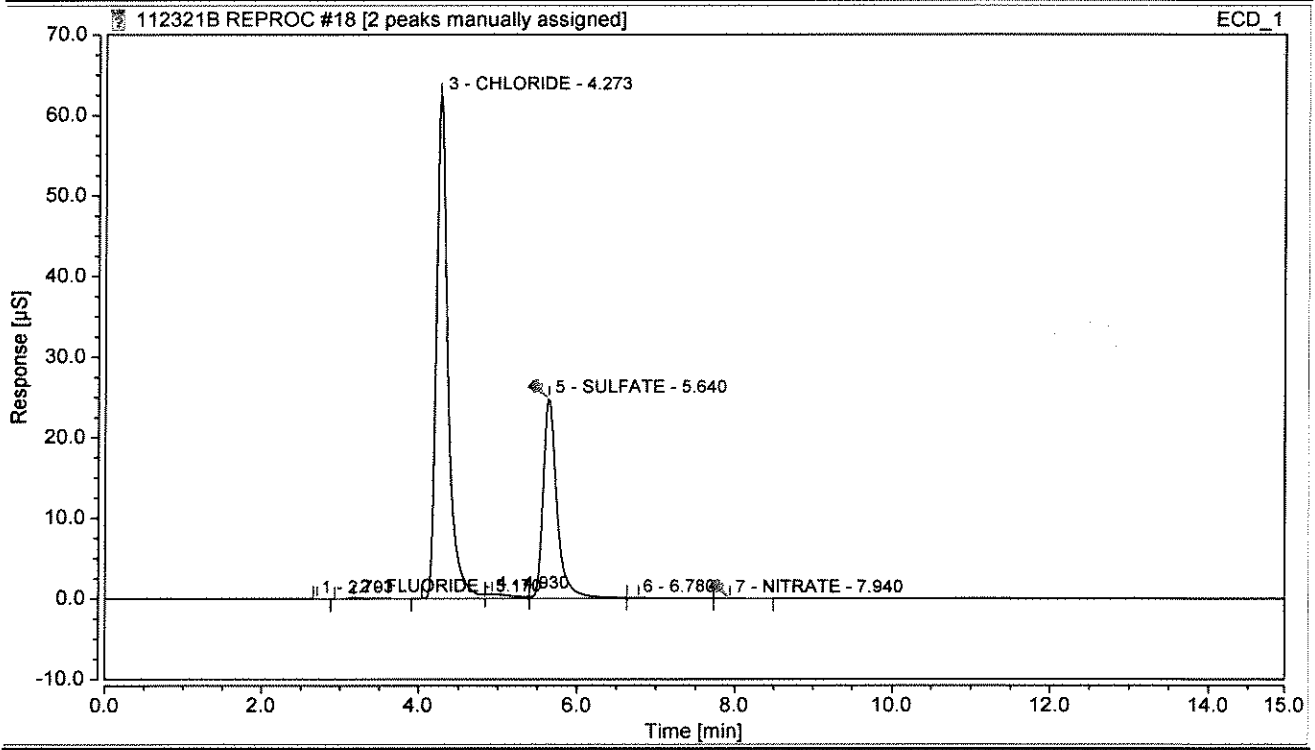
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.170	0.042	0.156	0.26	0.18	0.0851	n.a.
3	CHLORIDE	4.273	10.681	62.448	66.55	70.91	34.7577	n.a.
5	NITRITE	5.640	5.078	24.841	31.64	28.21	7.5887	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**15.800**	**87.444**	**98.45**	**99.30**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-11**	*Run Time (min):*	**14.97**
Vial Number:	**18**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 22:24**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

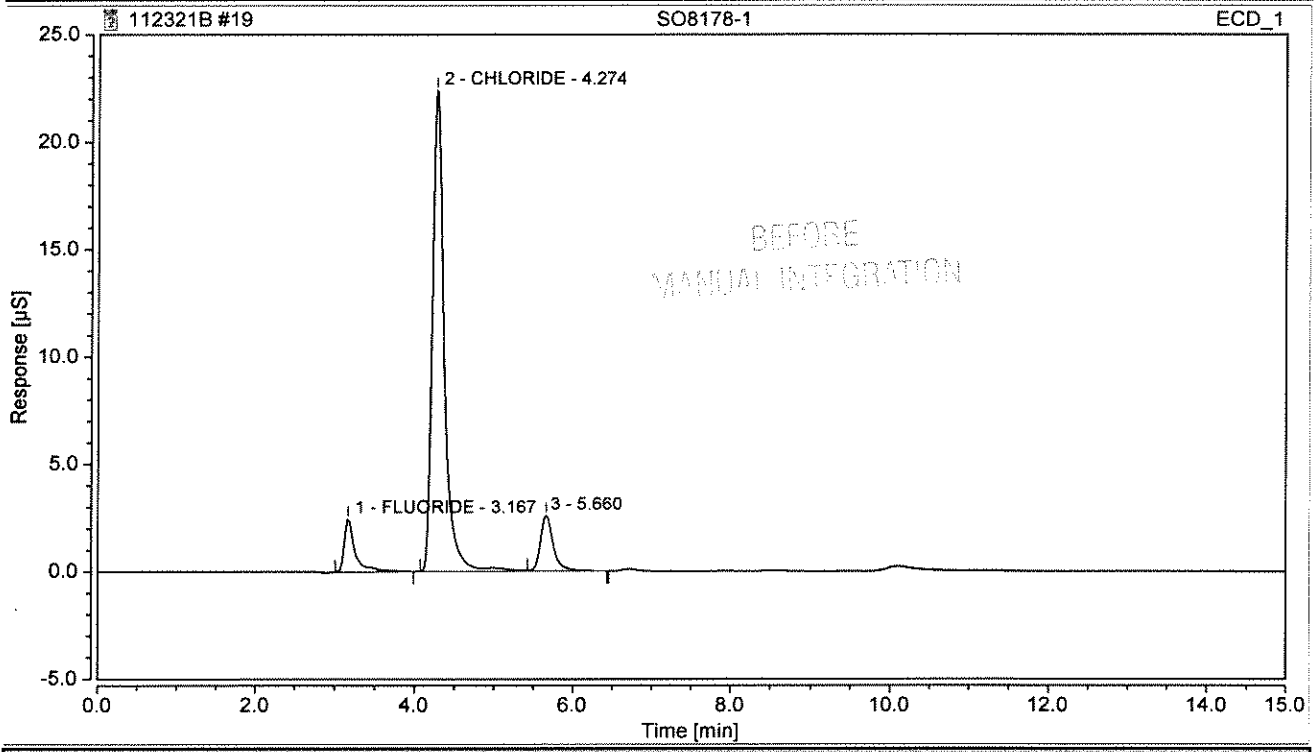
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.170	0.042	0.156	0.26	0.18	0.0851	n.a.
3	CHLORIDE	4.273	10.681	62.448	66.55	70.91	34.7577	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	SULFATE	5.640	5.078	24.841	31.64	28.21	22.0357	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	NITRATE	7.940	0.006	0.015	0.03	0.02	0.0528	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**15.806**	**87.459**	**98.48**	**99.31**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8178-1**	*Run Time (min):*	**14.99**
Vial Number:	**19**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 22:45**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

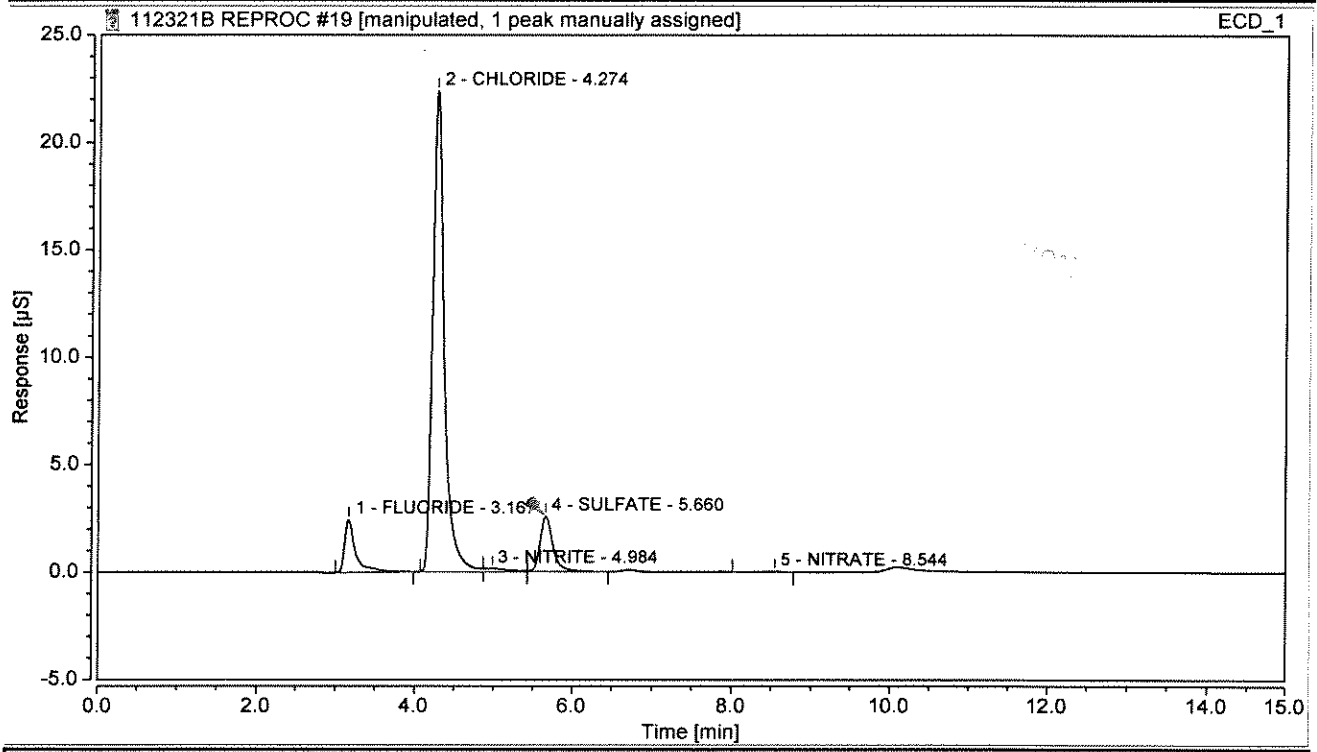
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	0.395	2.478	8.32	9.03	0.8068	n.a.
2	CHLORIDE	4.274	3.870	22.386	81.55	81.59	12.6532	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**4.264**	**24.864**	**89.86**	**90.63**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8178-1**	*Run Time (min):*	**14.99**
Vial Number:	**19**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 22:45**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

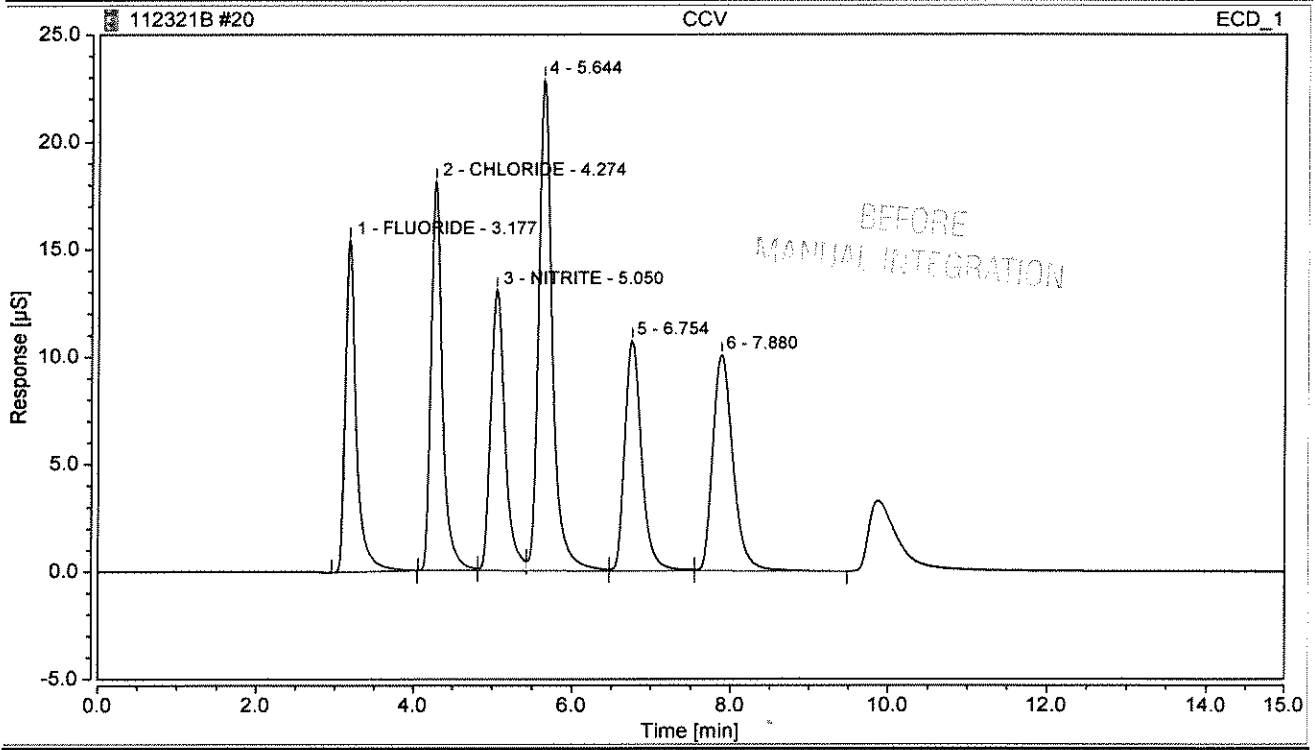
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	0.395	2.478	8.31	8.97	0.8068	n.a.
2	CHLORIDE	4.274	3.802	22.386	80.08	81.00	12.4329	n.a.
3	NITRITE	4.984	0.053	0.151	1.11	0.55	0.0786	n.a.
4	SULFATE	5.660	0.496	2.595	10.46	9.39	2.1545	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	NITRATE	8.544	0.002	0.026	0.05	0.09	0.0483	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**4.748**	**27.636**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.99**
Vial Number:	**20**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 23:05**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

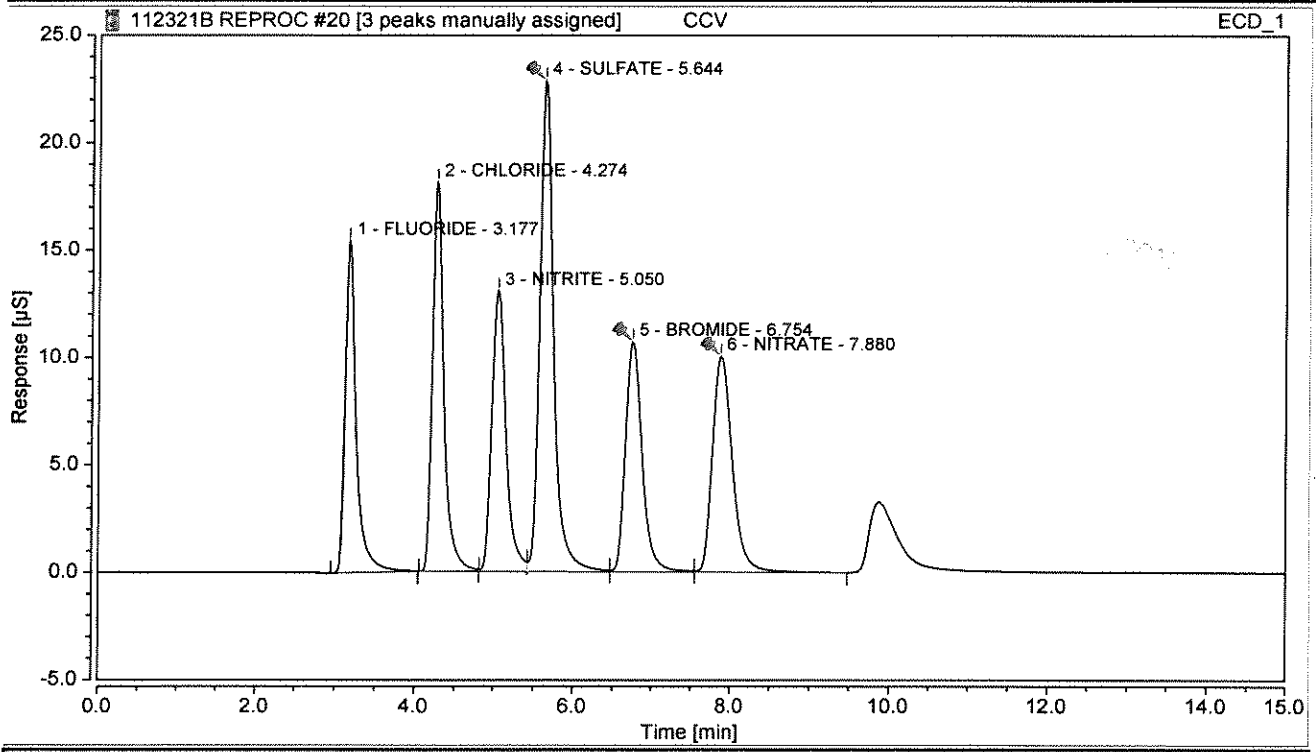
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.177	2.502	15.475	13.51	17.13	5.1164	2.3273
2	CHLORIDE	4.274	3.043	18.126	16.43	20.06	9.9706	-0.2939
3	NITRITE	5.050	2.700	13.069	14.58	14.46	4.0356	0.8912
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.245**	**46.670**	**44.51**	**51.65**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.99**
Vial Number:	**20**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 23:05**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

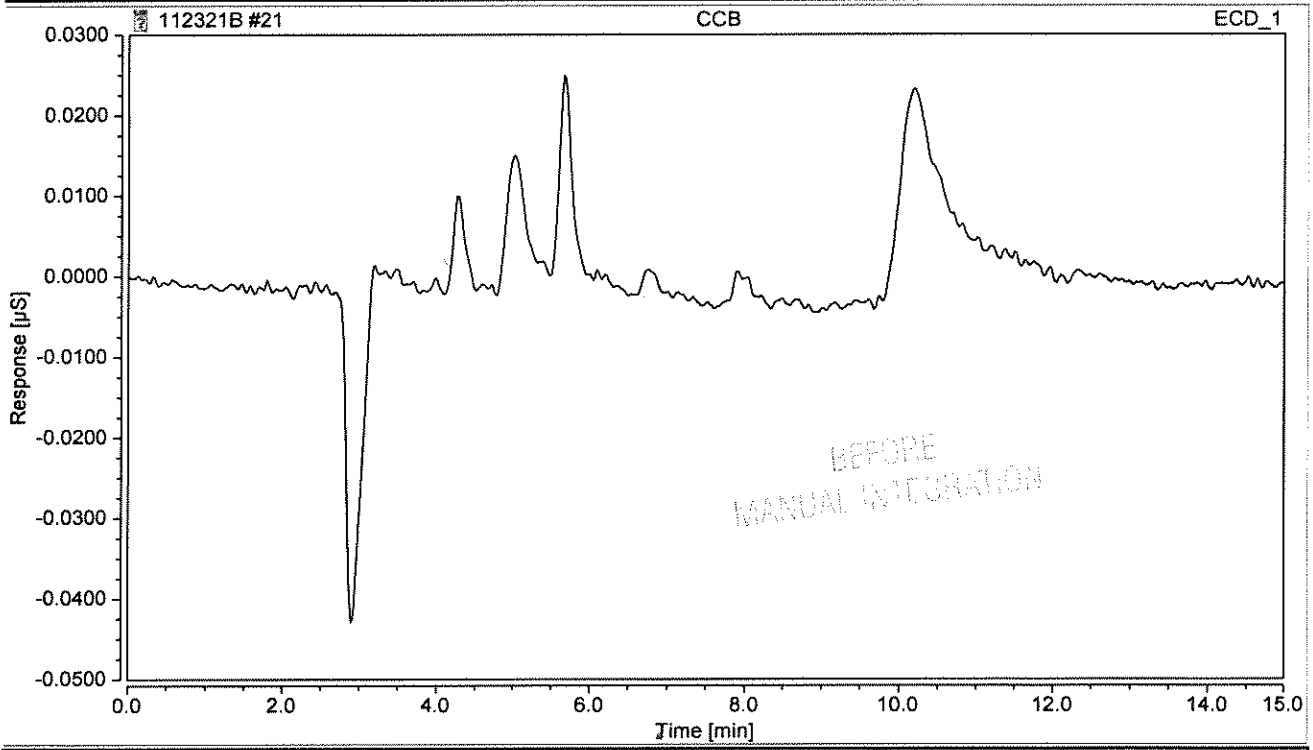
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.177	2.502	15.475	13.51	17.13	5.1164	2.3273
2	CHLORIDE	4.274	3.043	18.126	16.43	20.06	9.9706	-0.2939
3	NITRITE	5.050	2.700	13.069	14.58	14.46	4.0356	0.8912
4	SULFATE	5.644	4.617	22.878	24.92	25.32	20.0348	0.1742
5	BROMIDE	6.754	2.668	10.732	14.40	11.88	16.5467	-17.2663
6	NITRATE	7.880	2.996	10.072	16.17	11.15	3.9055	-2.3613
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**18.525**	**90.352**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.99**
Vial Number:	**21**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 23:26**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

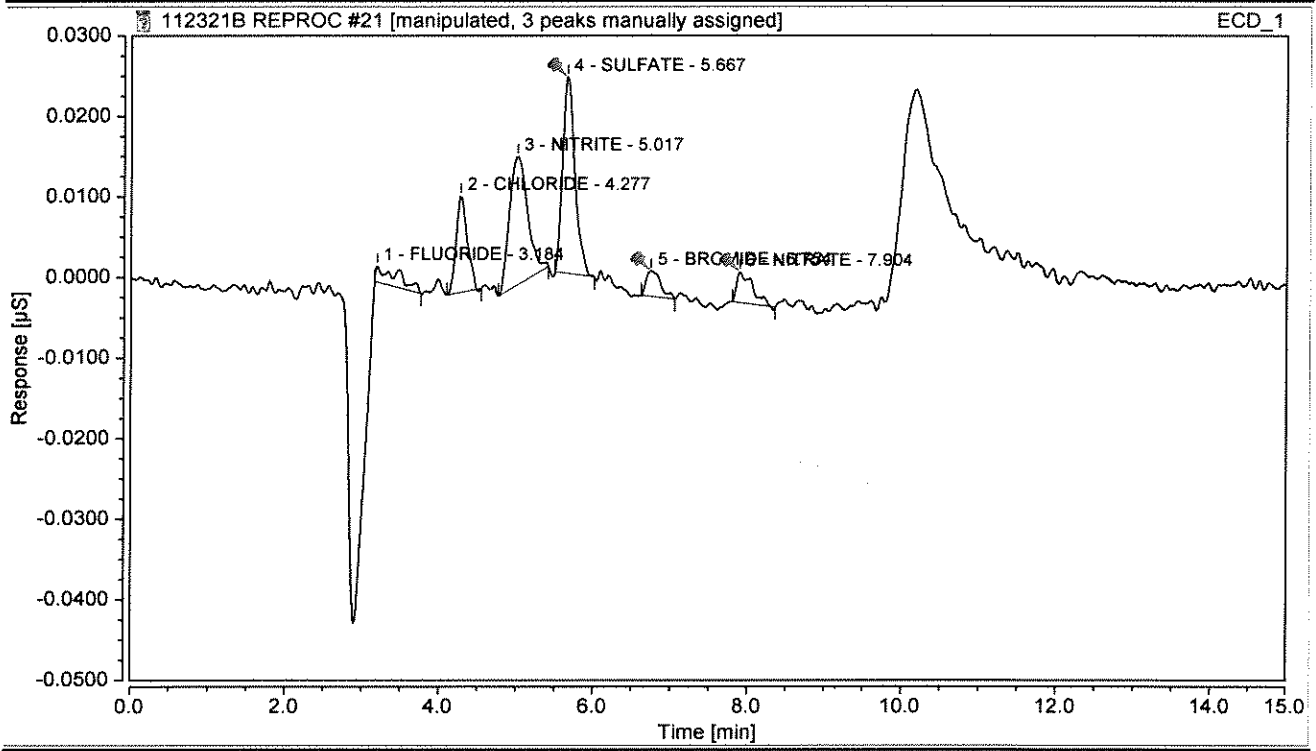
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.99**
Vial Number:	**21**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**23/Nov/21 23:26**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.184	0.001	0.002	5.51	3.26	0.0015	n.a.
2	CHLORIDE	4.277	0.002	0.012	15.27	19.59	0.1018	n.a.
3	NITRITE	5.017	0.004	0.016	32.87	26.00	0.0064	n.a.
4	SULFATE	5.667	0.004	0.024	34.18	39.80	0.0194	n.a.
5	BROMIDE	6.754	0.001	0.003	5.31	5.18	0.0049	n.a.
6	NITRATE	7.904	0.001	0.004	6.85	6.18	0.0467	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.013**	**0.061**	**100.00**	**100.00**		

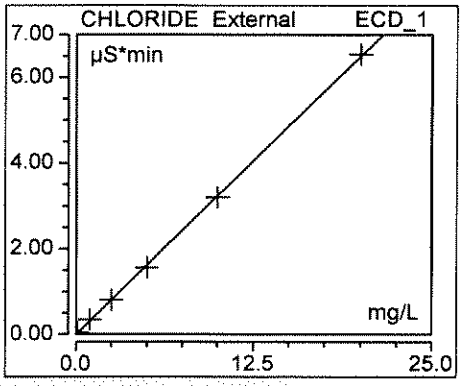
Calibration Batch Report

Sequence:	**092321A CAL REPROC**	*Injection Volume:*	**200.00**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Operator:*	**Katahdin Analytical**
Inj. Date / Time:	**23-Sep-2021 / 18:59**	*Run Time:*	**20.983833**

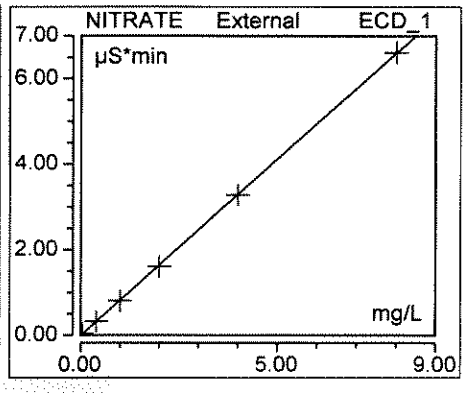
Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
FLUORIDE	Area	Lin	6.000	0.000	0.526	0.000	99.7217
CHLORIDE	Area	in, WithOffse	7.000	-0.008	0.325	0.000	99.9739
NITRITE	Area	Lin	6.000	0.000	0.695	0.000	99.8794
SULFATE	Area	Lin	7.000	0.000	0.242	0.000	99.9905
BROMIDE	Height	Lin	6.000	0.000	0.734	0.000	99.9675
NITRATE	Area	in, WithOffse	7.000	-0.012	0.826	0.000	99.9923
		AVERAGE:		-0.0034	0.5579	0.0000	99.9209

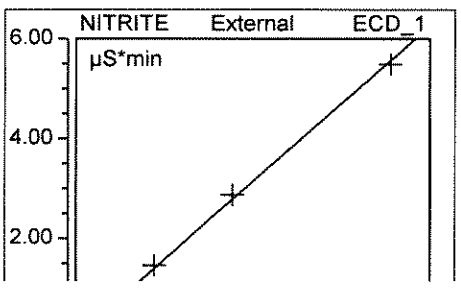
Injection Name **CHLORIDE**	Ret.Time min CHLORIDE	Area µS*min CHLORIDE	Height µS CHLORIDE	Amount mg/L CHLORIDE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	4.401	0.0156	0.078	0.074
CAL 2	4.401	0.0312	0.215	0.121
CAL 3	4.401	0.2808	2.062	0.889
CAL 4	4.401	0.6837	5.193	2.127
CAL 5	4.404	1.4839	10.609	4.586
CAL 6	4.404	3.0407	21.657	9.371
CAL 7	4.401	6.1530	43.400	18.937
Average	4.401			
Rel. Std. Dev.	0.037 %			



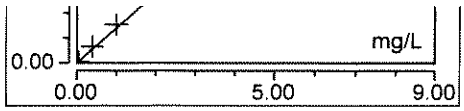
Injection Name **NITRATE**	Ret.Time min NITRATE	Area µS*min NITRATE	Height µS NITRATE	Amount mg/L NITRATE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	8.441	0.0098	0.041	0.026
CAL 2	8.441	0.0269	0.115	0.047
CAL 3	8.427	0.2681	1.183	0.339
CAL 4	8.407	0.7105	3.094	0.875
CAL 5	8.387	1.4726	6.184	1.797
CAL 6	8.347	3.0493	12.212	3.706
CAL 7	8.284	6.1983	22.774	7.517
Average	8.391			
Rel. Std. Dev.	0.686 %			



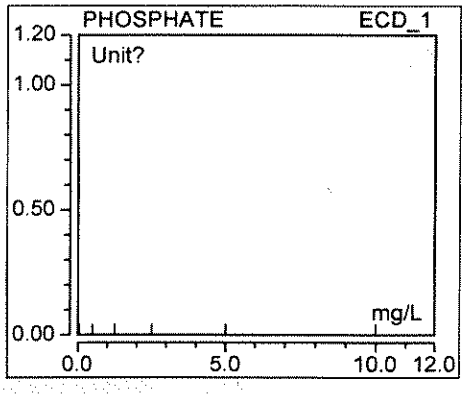
Injection Name **NITRITE**	Ret.Time min NITRITE	Area µS*min NITRITE	Height µS NITRITE	Amount mg/L NITRITE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	5.274	0.0042	0.016	0.006
CAL 2	5.244	0.0213	0.138	0.031
CAL 3	5.244	0.2700	1.683	0.389
CAL 4	5.244	0.6827	4.228	0.982



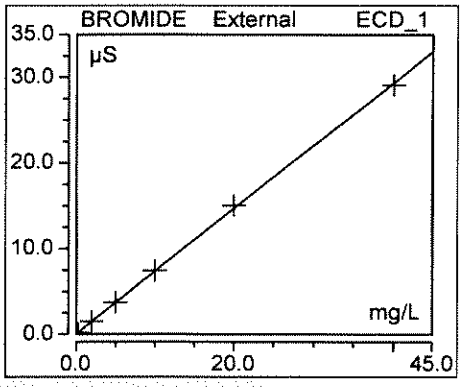
CAL 5	5.247	1.3843	8.194	1.992
CAL 6	5.244	2.7760	15.721	3.995
CAL 7	5.244	5.2897	28.130	7.612
Average	5.249			
Rel. Std. Dev.	0.213 %			



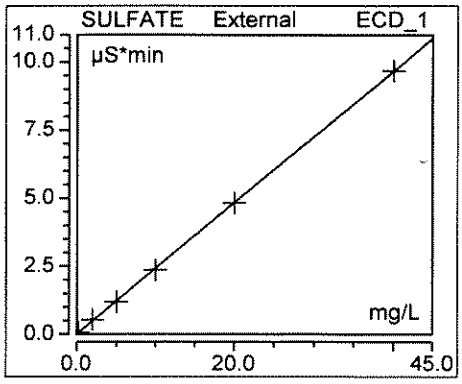
Injection Name	Ret.Time min	Area µS*min	Height µS	Amount mg/L
PHOSPHATE	PHOSPHATE	PHOSPHATE	PHOSPHATE	PHOSPHATE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.
CAL 2	n.a.	n.a.	n.a.	n.a.
CAL 3	n.a.	n.a.	n.a.	n.a.
CAL 4	n.a.	n.a.	n.a.	n.a.
CAL 5	n.a.	n.a.	n.a.	n.a.
CAL 6	n.a.	n.a.	n.a.	n.a.
CAL 7	n.a.	n.a.	n.a.	n.a.
Average	#DIV/0!			
Rel. Std. Dev.	#DIV/0!			



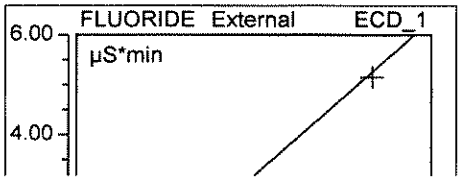
Injection Name	Ret.Time min	Area µS*min	Height µS	Amount mg/L
BROMIDE	BROMIDE	BROMIDE	BROMIDE	BROMIDE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.
CAL 2	7.137	0.0193	0.096	0.131
CAL 3	7.131	0.2367	1.212	1.652
CAL 4	7.124	0.6180	3.192	4.351
CAL 5	7.117	1.2932	6.476	8.828
CAL 6	7.097	2.7022	13.229	18.033
CAL 7	7.064	5.4957	25.828	35.207
Average	7.112			
Rel. Std. Dev.	0.382 %			



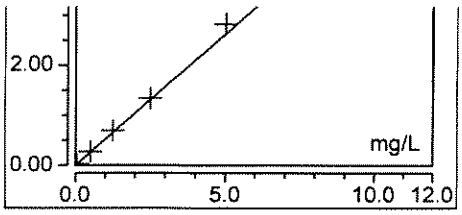
Injection Name	Ret.Time min	Area µS*min	Height µS	Amount mg/L
SULFATE	SULFATE	SULFATE	SULFATE	SULFATE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	6.054	0.0063	0.034	0.026
CAL 2	6.051	0.0385	0.208	0.159
CAL 3	6.051	0.4233	2.338	1.752
CAL 4	6.044	1.0846	5.927	4.489
CAL 5	6.041	2.2261	11.891	9.213
CAL 6	6.021	4.5870	24.056	18.985
CAL 7	5.997	9.2576	46.984	38.316
Average	6.037			
Rel. Std. Dev.	0.343 %			



Injection Name	Ret.Time min	Area µS*min	Height µS	Amount mg/L
FLUORIDE	FLUORIDE	FLUORIDE	FLUORIDE	FLUORIDE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.



CAL 2	3.201	0.0248	0.156	0.047
CAL 3	3.201	0.2394	1.943	0.455
CAL 4	3.201	0.5957	4.903	1.133
CAL 5	3.204	1.1610	9.488	2.208
CAL 6	3.211	2.5167	18.776	4.787
CAL 7	3.217	4.8725	34.514	9.268
Average	3.206			
Rel. Std. Dev.	0.216 %			



Anion Summary Report

No. CHLORIDE	Name CHLORIDE	Time min CHLORIDE ECD_1	Area µS*min CHLORIDE ECD_1	Rel.Area % CHLORIDE ECD_1	Height µS CHLORIDE ECD_1	Rel.Height % CHLORIDE ECD_1	Amount mg/L CHLORIDE ECD_1
1	CAL 1	4.401	0.0156	38.29	0.08	39.91	0.0736
2	CAL 2	4.401	0.0312	19.25	0.22	23.17	0.1214
3	CAL 3	4.401	0.2808	16.34	2.06	19.79	0.8886
4	CAL 4	4.401	0.6837	15.63	5.19	19.57	2.1270
5	CAL 5	4.404	1.4839	16.45	10.61	20.08	4.5863
6	CAL 6	4.404	3.0407	16.28	21.66	20.50	9.3712
7	CAL 7	4.401	6.1530	16.51	43.40	21.52	18.9369
	Sum:	30.810	11.689	138.752	83.214	164.542	36.105
	Average:	4.401	1.670	19.822	11.888	23.506	5.158
	Rel.Std.Dev:	0.037 %	134.658 %	41.499 %	133.323 %	31.231 %	133.990 %

No. NITRATE	Name NITRATE	Time min NITRATE ECD_1	Area µS*min NITRATE ECD_1	Rel.Area % NITRATE ECD_1	Height µS NITRATE ECD_1	Rel.Height % NITRATE ECD_1	Amount mg/L NITRATE ECD_1
1	CAL 1	8.441	0.0098	24.01	0.04	21.28	0.0263
2	CAL 2	8.441	0.0269	16.60	0.12	12.40	0.0470
3	CAL 3	8.427	0.2681	15.60	1.18	11.35	0.3390
4	CAL 4	8.407	0.7105	16.24	3.09	11.66	0.8745
5	CAL 5	8.387	1.4726	16.32	6.18	11.70	1.7970
6	CAL 6	8.347	3.0493	16.33	12.21	11.56	3.7055
7	CAL 7	8.284	6.1983	16.63	22.77	11.30	7.5171
	Sum:	58.734	11.735	121.735	45.603	91.244	14.307
	Average:	8.391	1.676	17.391	6.515	13.035	2.044
	Rel.Std.Dev:	0.686 %	135.120 %	16.894 %	128.414 %	28.020 %	134.161 %

No. NITRITE	Name NITRITE	Time min NITRITE ECD_1	Area µS*min NITRITE ECD_1	Rel.Area % NITRITE ECD_1	Height µS NITRITE ECD_1	Rel.Height % NITRITE ECD_1	Amount mg/L NITRITE ECD_1
1	CAL 1	5.274	0.0042	10.24	0.02	8.13	0.0060
2	CAL 2	5.244	0.0213	13.18	0.14	14.86	0.0307
3	CAL 3	5.244	0.2700	15.71	1.68	16.15	0.3886
4	CAL 4	5.244	0.6827	15.60	4.23	15.93	0.9824
5	CAL 5	5.247	1.3843	15.35	8.19	15.51	1.9921
6	CAL 6	5.244	2.7760	14.87	15.72	14.88	3.9949
7	CAL 7	5.244	5.2897	14.19	28.13	13.95	7.6122
	Sum:	36.740	10.428	99.147	58.110	99.413	15.007
	Average:	5.249	1.490	14.164	8.301	14.202	2.144
	Rel.Std.Dev:	0.213 %	130.298 %	13.733 %	124.791 %	19.572 %	130.298 %

No. PHOSPHATE	Name PHOSPHATE	Time min PHOSPHATE ECD_1	Area µS*min PHOSPHATE ECD_1	Rel.Area % PHOSPHATE ECD_1	Height µS PHOSPHATE ECD_1	Rel.Height % PHOSPHATE ECD_1	Amount mg/L PHOSPHATE ECD_1
1	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	CAL 3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	CAL 4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	CAL 5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

6	CAL 6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	CAL 7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Sum:	0.000	0.000	0.000	0.000	0.000	0.000
	Average:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Rel.Std.Dev:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

No. BROMIDE	Name BROMIDE	Time min BROMIDE ECD_1	Area µS*min BROMIDE ECD_1	Rel.Area % BROMIDE ECD_1	Height µS BROMIDE ECD_1	Rel.Height % BROMIDE ECD_1	Amount mg/L BROMIDE ECD_1
1	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 2	7.137	0.0193	11.90	0.10	10.36	0.1310
3	CAL 3	7.131	0.2367	13.77	1.21	11.63	1.6524
4	CAL 4	7.124	0.6180	14.13	3.19	12.03	4.3510
5	CAL 5	7.117	1.2932	14.34	6.48	12.26	8.8276
6	CAL 6	7.097	2.7022	14.47	13.23	12.52	18.0330
7	CAL 7	7.064	5.4957	14.75	25.83	12.81	35.2074
	Sum:	42.670	10.365	83.356	50.033	71.603	68.202
	Average:	7.112	1.728	13.893	8.339	11.934	11.367
	Rel.Std.Dev:	0.382 %	120.620 %	7.405 %	117.311 %	7.306 %	117.311 %

No. SULFATE	Name SULFATE	Time min SULFATE ECD_1	Area µS*min SULFATE ECD_1	Rel.Area % SULFATE ECD_1	Height µS SULFATE ECD_1	Rel.Height % SULFATE ECD_1	Amount mg/L SULFATE ECD_1
1	CAL 1	6.054	0.0063	15.46	0.03	17.56	0.0261
2	CAL 2	6.051	0.0385	23.75	0.21	22.37	0.1591
3	CAL 3	6.051	0.4233	24.63	2.34	22.43	1.7519
4	CAL 4	6.044	1.0846	24.79	5.93	22.33	4.4891
5	CAL 5	6.041	2.2261	24.68	11.89	22.50	9.2134
6	CAL 6	6.021	4.5870	24.57	24.06	22.77	18.9850
7	CAL 7	5.997	9.2576	24.84	46.98	23.30	38.3161
	Sum:	42.257	17.623	162.722	91.438	153.270	72.941
	Average:	6.037	2.518	23.246	13.063	21.896	10.420
	Rel.Std.Dev:	0.343 %	134.392 %	14.850 %	131.629 %	8.863 %	134.392 %

No. FLUORIDE	Name FLUORIDE	Time min FLUORIDE ECD_1	Area µS*min FLUORIDE ECD_1	Rel.Area % FLUORIDE ECD_1	Height µS FLUORIDE ECD_1	Rel.Height % FLUORIDE ECD_1	Amount mg/L FLUORIDE ECD_1
1	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 2	3.201	0.0248	15.32	0.16	16.84	0.0472
3	CAL 3	3.201	0.2394	13.93	1.94	18.64	0.4554
4	CAL 4	3.201	0.5957	13.61	4.90	18.48	1.1330
5	CAL 5	3.204	1.1610	12.87	9.49	17.96	2.2082
6	CAL 6	3.211	2.5167	13.48	18.78	17.77	4.7868
7	CAL 7	3.217	4.8725	13.07	34.51	17.12	9.2676
	Sum:	19.233	9.410	82.295	69.780	106.808	17.898
	Average:	3.206	1.568	13.716	11.630	17.801	2.983
	Rel.Std.Dev:	0.216 %	117.838 %	6.377 %	112.114 %	4.031 %	117.838 %

WET CHEMISTRY BATCH REPORT
Dec 10 2021, 10:28 am
Batch: WG311163 Run ID 1: R582474 Run ID 2: NONE

Parameter: Alkalinity

Date Analyzed: 07-DEC-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8173-17	SAMP	STDM 2320B	50.0mL	50.0mL	1	152.34	150 mg/L	NA	5	0.23	5.0		
SO8297-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	110.112	110 mg/L	NA	5	0.23	5.0		
SO8314-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	482.153	480 mg/L	NA	5	0.23	5.0		
SO8314-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	135.442	140 mg/L	NA	5	0.23	5.0		
SO8314-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	976.657	980 mg/L	NA	5	0.23	5.0		
SO8314-8	SAMP	STDM 2320B	50.0mL	50.0mL	1	340.513	340 mg/L	NA	5	0.23	5.0		
SO8314-9	SAMP	STDM 2320B	50.0mL	50.0mL	1	85.491	85. mg/L	NA	5	0.23	5.0		
SO8314-10	SAMP	STDM 2320B	50.0mL	50.0mL	1	2.633	U5.0 mg/L	NA	5	0.23	5.0		
SO8366-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	77.832	78. mg/L	NA	5	0.23	5.0		
SO8415-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	129.026	130 mg/L	NA	5	0.23	5.0		
SO8415-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	50.213	50. mg/L	NA	5	0.23	5.0		
SO8415-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	106.047	110 mg/L	NA	5	0.23	5.0		
SO8415-4	SAMP	STDM 2320B	50.0mL	50.0mL	1	82.012	82. mg/L	NA	5	0.23	5.0		
SO8415-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	2.487	U5.0 mg/L	NA	5	0.23	5.0		
WG311163-1	MBLANK	STDM 2320B	50.0mL	50.0mL	1	3.48	J3.5 mg/L	NA	5	0.23	5.0		
WG311163-2	LCS	STDM 2320B	50.0mL	50.0mL	1	135.871	140 mg/L	NA	5	0.23	5.0		113
WG311163-3	LCSD	STDM 2320B	50.0mL	50.0mL	1	134.773	130 mg/L	NA	5	0.23	5.0	1	112
WG311163-4	DUP	STDM 2320B	50.0mL	50.0mL	1	157.199	160 mg/L	NA	5	0.23	5.0	3	
WG311163-5	MS	STDM 2320B	50.0mL	50.0mL	1	266.83	270 mg/L	NA	5	0.23	5.0		111
WG311163-6	MS	STDM 2320B	50.0mL	50.0mL	1	227.674	230 mg/L	NA	5	0.23	5.0		109

Comments:

WG311163-1	SO8173-17
WG311163-2	SO8173-17
WG311163-3	SO8173-17
WG311163-4	SO8173-17
WG311163-5	SO8173-17
WG311163-6	SO8297-1

Entered by: SS Date: 12/10/21 Accepted by: ZF Date: 12/10/21

Kalahari Analytical Services SO8173 Page 294 of 415

WET CHEMISTRY BATCH REPORT
Dec 10 2021, 10:28 am
Batch: WG311164

Parameter: Bicarbonate (As CaCO3)

Prep Date: N/A

Date Analyzed: 07-DEC-21

Prep Method: N/A

Analyst Initials: SS

Prep Chemist: N/A

Sample	Samp Type	Method	Alkalinity	pH	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8314-1	SAMP	SM4500CO2 D	482.mg/L	6.94pH	1	481.75606	480 mg/L	NA	5	.497	5		
SO8314-10	SAMP	SM4500CO2 D	2.63mg/L	5.57pH	1	2.63272	U5.0 mg/L	NA	5	.497	5		
SO8314-2	SAMP	SM4500CO2 D	135.mg/L	6.01pH	1	135.42834	140 mg/L	NA	5	.497	5		
SO8314-5	SAMP	SM4500CO2 D	977.mg/L	7.68pH	1	972.2889	970 mg/L	NA	5	.497	5		
SO8314-8	SAMP	SM4500CO2 D	340.mg/L	6.93pH	1	340.23906	340 mg/L	NA	5	.497	5		
SO8314-9	SAMP	SM4500CO2 D	85.5mg/L	6.26pH	1	85.47532	85. mg/L	NA	5	.497	5		
SO8415-1	SAMP	SM4500CO2 D	129.mg/L	6.24pH	1	129.00385	130 mg/L	NA	5	.497	5		
SO8415-2	SAMP	SM4500CO2 D	50.2mg/L	9.43pH	1	39.06174	39. mg/L	NA	5	.497	5		
SO8415-3	SAMP	SM4500CO2 D	106.mg/L	5.97pH	1	106.03725	110 mg/L	NA	5	.497	5		
SO8415-4	SAMP	SM4500CO2 D	82.0mg/L	6.02pH	1	82.00342	82. mg/L	NA	5	.497	5		
SO8415-5	SAMP	SM4500CO2 D	2.49mg/L	5.72pH	1	2.48661	U5.0 mg/L	NA	5	.497	5		
WG311164-1	MBLANK	SM4500CO2 D	3.48mg/L	5.92pH	1	3.47931	U5.0 mg/L	NA	5	.497	5		

Comments:

WG311164-1 SO8314-1

Entered by: SS Date: 12/10/21 Accepted by: ZF Date: 12/10/21

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WET CHEMISTRY BATCH REPORT
Dec 10 2021, 10:28 am
Batch: WG311165

Parameter: Carbonate (As CaCO3)

Prep Date: N/A

Date Analyzed: 07-DEC-21

Prep Method: N/A

Analyst Initials: SS

Prep Chemist: N/A

Sample	Samp Type	Method	Bicarb	pH	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8314-1	SAMP	SM4500CO2 D		6.94pH	1	.3926	U5.0 mg/L	NA	5	.497	5		
SO8314-10	SAMP	SM4500CO2 D		5.57pH	1	.00009	U5.0 mg/L	NA	5	.497	5		
SO8314-2	SAMP	SM4500CO2 D		6.01pH	1	.01315	U5.0 mg/L	NA	5	.497	5		
SO8314-5	SAMP	SM4500CO2 D		7.68pH	1	4.34433	U5.0 mg/L	NA	5	.497	5		
SO8314-8	SAMP	SM4500CO2 D		6.93pH	1	.26972	U5.0 mg/L	NA	5	.497	5		
SO8314-9	SAMP	SM4500CO2 D		6.26pH	1	.01476	U5.0 mg/L	NA	5	.497	5		
SO8415-1	SAMP	SM4500CO2 D		6.24pH	1	.02127	U5.0 mg/L	NA	5	.497	5		
SO8415-2	SAMP	SM4500CO2 D		9.43pH	1	9.81475	9.8 mg/L	NA	5	.497	5		
SO8415-3	SAMP	SM4500CO2 D		5.97pH	1	.00928	U5.0 mg/L	NA	5	.497	5		
SO8415-4	SAMP	SM4500CO2 D		6.02pH	1	.00805	U5.0 mg/L	NA	5	.497	5		
SO8415-5	SAMP	SM4500CO2 D		5.72pH	1	.00012	U5.0 mg/L	NA	5	.497	5		
WG311165-1	MBLANK	SM4500CO2 D		5.92pH	1	.00027	U5.0 mg/L	NA	5	.497	5		

Comments:

WG311165-1 SO8314-1

Entered by: SS Date: 12/10/21 Accepted by: ZF Date: 12/10/21

Kaahdin Analytical Serivces SO8173 Page 296 of 415

Start time:	12/7/2021 10:22						
Results							
No.	Comment / ID	Start time	Rx	Result	Unit	Name	Recovery
1/4	CCV	12/7/2021 10:23:22 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	128.692	mg/L	Total Alkalinity	102.95%
			R3 =	7.534	pH	pH	
			R4 =	20.4	oC	TEMPERATURE	
2/4	CCB	12/7/2021 10:26:45 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	3.48	mg/L	Total Alkalinity	
			R3 =	5.921	pH	pH	
			R4 =	20.4	oC	TEMPERATURE	
3/4	LCS	12/7/2021 10:28:37 AM	R1 =	103.633	mg/L	P Alkalinity- pH8.2	
			R2 =	135.871	mg/L	Total Alkalinity	113.23%
			R3 =	10.61	pH	pH	
			R4 =	20.2	oC	TEMPERATURE	
4/4	LCSD	12/7/2021 10:31:46 AM	R1 =	104.573	mg/L	P Alkalinity- pH8.2	
			R2 =	134.773	mg/L	Total Alkalinity	112.31%
			R3 =	10.613	pH	pH	
			R4 =	20.4	oC	TEMPERATURE	
1/18	SO8173-17	12/7/2021 11:21:40 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	152.34	mg/L	Total Alkalinity	
			R3 =	6.622	pH	pH	
			R4 =	18.6	oC	TEMPERATURE	
2/18	SO8173-17 DUP	12/7/2021 11:24:59 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	157.199	mg/L	Total Alkalinity	
			R3 =	6.362	pH	pH	
			R4 =	18.3	oC	TEMPERATURE	
3/18	SO8173-17 MS	12/7/2021 11:27:59 AM	R1 =	81.886	mg/L	P Alkalinity- pH8.2	
			R2 =	266.83	mg/L	Total Alkalinity	
			R3 =	9.394	pH	pH	
			R4 =	18.3	oC	TEMPERATURE	
4/18	SO8297-1	12/7/2021 11:31:55 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	110.112	mg/L	Total Alkalinity	
			R3 =	6.829	pH	pH	
			R4 =	16	oC	TEMPERATURE	
5/18	SO8297-1 MS	12/7/2021 11:34:55 AM	R1 =	69.409	mg/L	P Alkalinity- pH8.2	
			R2 =	227.674	mg/L	Total Alkalinity	
			R3 =	9.203	pH	pH	
			R4 =	16.3	oC	TEMPERATURE	
6/18	SO8314-1	12/7/2021 11:38:41 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	482.153	mg/L	Total Alkalinity	
			R3 =	6.938	pH	pH	
			R4 =	13.6	oC	TEMPERATURE	
7/18	SO8314-2	12/7/2021 11:44:47 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	135.442	mg/L	Total Alkalinity	
			R3 =	6.014	pH	pH	
			R4 =	13.6	oC	TEMPERATURE	
8/18	SO8314-3	12/7/2021 11:47:35 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	NaN	mg/L	Total Alkalinity	
			R3 =	8.034	pH	pH	
			R4 =	14.3	oC	TEMPERATURE	
9/18	CCV	12/7/2021 11:57:10 AM	R1 =	12.059	mg/L	P Alkalinity- pH8.2	
			R2 =	136.142	mg/L	Total Alkalinity	108.91%
			R3 =	8.695	pH	pH	
			R4 =	19.3	oC	TEMPERATURE	

10/18	CCB	12/7/2021 12:00:14 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.707	mg/L	Total Alkalinity	
			R3 =	5.883	pH	pH	
			R4 =	19.6	oC	TEMPERATURE	
11/18	SO8314-4	12/7/2021 12:02:07 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	NaN	mg/L	Total Alkalinity	
			R3 =	7.726	pH	pH	
			R4 =	15.8	oC	TEMPERATURE	
12/18	SO8314-5	12/7/2021 12:11:42 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	976.657	mg/L	Total Alkalinity	
			R3 =	7.677	pH	pH	
			R4 =	16.3	oC	TEMPERATURE	
13/18	SO8314-6	12/7/2021 12:20:52 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	NaN	mg/L	Total Alkalinity	
			R3 =	7.706	pH	pH	
			R4 =	16.8	oC	TEMPERATURE	
14/18	SO8314-7	12/7/2021 12:30:27 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	NaN	mg/L	Total Alkalinity	
			R3 =	8.831	pH	pH	
			R4 =	17.3	oC	TEMPERATURE	
15/18	SO8314-8	12/7/2021 12:41:34 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	340.513	mg/L	Total Alkalinity	
			R3 =	6.926	pH	pH	
			R4 =	17.7	oC	TEMPERATURE	
16/18	SO8314-9	12/7/2021 12:45:48 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	85.491	mg/L	Total Alkalinity	
			R3 =	6.264	pH	pH	
			R4 =	17.8	oC	TEMPERATURE	
17/18	SO8314-10	12/7/2021 12:48:20 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.633	mg/L	Total Alkalinity	
			R3 =	5.574	pH	pH	
			R4 =	17.9	oC	TEMPERATURE	
18/18	SO8366-1	12/7/2021 12:50:13 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	77.832	mg/L	Total Alkalinity	
			R3 =	6.292	pH	pH	
			R4 =	18.4	oC	TEMPERATURE	
1/9	SO8415-1	12/7/2021 1:23:48 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	129.026	mg/L	Total Alkalinity	
			R3 =	6.244	pH	pH	
			R4 =	17.1	oC	TEMPERATURE	
2/9	SO8415-2	12/7/2021 1:26:50 PM	R1 =	40.306	mg/L	P Alkalinity- pH8.2	
			R2 =	50.213	mg/L	Total Alkalinity	
			R3 =	9.427	pH	pH	
			R4 =	16.5	oC	TEMPERATURE	
3/9	CCV	12/7/2021 1:29:52 PM	R1 =	12.164	mg/L	P Alkalinity- pH8.2	
			R2 =	132.046	mg/L	Total Alkalinity	105.64%
			R3 =	8.552	pH	pH	
			R4 =	19.8	oC	TEMPERATURE	
4/9	CCB	12/7/2021 1:33:17 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.575	mg/L	Total Alkalinity	
			R3 =	5.352	pH	pH	
			R4 =	20.1	oC	TEMPERATURE	
5/9	SO8415-3	12/7/2021 1:35:08 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	106.047	mg/L	Total Alkalinity	
			R3 =	5.969	pH	pH	

			R4 =	16.1	oC	TEMPERATURE	
6/9	SO8415-4	12/7/2021 1:37:47 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	82.012	mg/L	Total Alkalinity	
			R3 =	6.019	pH	pH	
			R4 =	16.2	oC	TEMPERATURE	
7/9	SO8415-5	12/7/2021 1:40:11 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.487	mg/L	Total Alkalinity	
			R3 =	5.722	pH	pH	
			R4 =	17	oC	TEMPERATURE	
8/9	CCV	12/7/2021 1:42:05 PM	R1 =	13.115	mg/L	P Alkalinity- pH8.2	
			R2 =	133.854	mg/L	Total Alkalinity	107.08%
			R3 =	8.555	pH	pH	
			R4 =	19.8	oC	TEMPERATURE	
9/9	CCB	12/7/2021 1:45:28 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.611	mg/L	Total Alkalinity	
			R3 =	5.508	pH	pH	
			R4 =	20	oC	TEMPERATURE	
Calibration data							
	Number of segments	1					
	Slope	-58.50 mV/pH					
	Zero point	6.966 pH					
	Calibration temperature	25.0 oC					

ALK: WG311163 → R582474 TC: WG311165 → R582476

TB: WG311164 → R582475

KATAHDIN ANALYTICAL SERVICES

ALKALINITY, BICARBONATE, CARBONATE, FREE CO2 - DL 25 AUTOTITRATOR

Analysis: EPA 310.1 SM2320B **Calculations:** SM 4500-CO2 D

SS 12/7/21

pH Probe ID: DG 111-5C	
Alkalinity Acid Reagent: ~~W20505~~ W20501	**Buffer pH 4 ID:** SWL 4798
Acid Concentration: .02 N	**Buffer pH 7 ID:** 4901
Alkalinity Check Standard: W20534 Tv=125 mg/L	**Buffer pH 10 ID:** 4898
Alkalinity MS: W20531 Tv=120 mg/L	**Pipette IDs:** ~~W11~~ W13
Sulfuric Acid Titrant ID:	

Sample ID	Run #	Volume (mL)	Sample ID	Run #	Volume (mL)	Comments - Must indicate which sample
CCV	1	50	CCV	3	50	
CCB	2	1	CCB	4	"	
LCS	3	44	508415-3	5	"	
LCSD	4	1	-4	6	"	
508173-17	1	50	-5	7	"	
1 DUP	2	1	CCV	8	"	
1 MS	3	44	CCB	9	—	
8297-1	4	50				
1 MS	5	44				
8314-1	6	50				
-2	7	"				
-3	8	"				8314-3 = high level
CCV	9	"				
CCB	10	"				
8314-4	11	"				8314-4 = high level
-5	12	"				
-6	13	"				8314-6 = high level
-7	14	"				8314-7 = " "
-8	15	"				
-9	16	"				
-10	17	"				
8366-1	18	—				
8415-1	1	50				
-2	2	1		SS 12/7/21		

Analyst: SS **Date:** 12/7/21

Checked By: ZF **Date:** 12/10/21

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Wet Chemistry Batch Report

Analyst Initials: SS
Date Analyzed: 09-DEC-21

Batch: WG311440
Prep Method: E300.0
Prep Chemist: SS

Sample	Samp Type	Method	Parameter	DF	Result	Rpt. Result	Units	PQL	Adj. PQL	MDL	Adj. MDL	RPD	Rec.
SO7986-1DL	SAMP	EPA 300.0	Chloride	10	100.3272	100	mg/L	2	20.	.0993	0.99		
WG311440-1	MBLANK	EPA 300.0	Chloride	1	.1054	J 0.10	mg/L	2	2.0	.0993	0.099		
WG311440-2	LCS	EPA 300.0	Chloride	1	3.4727	3.47	mg/L	2	2.0	.0993	0.099		92.5
WG311440-3	DUP	EPA 300.0	Chloride	10	100.2371	100	mg/L	2	20.	.0993	0.99	0	
WG311440-4	MS	EPA 300.0	Chloride	10	134.8432	130	mg/L	2	20.	.0993	0.99		105.

Comments:

WG311440-1	SO7986-1
WG311440-2	SO7986-1
WG311440-3	SO7986-1
WG311440-4	SO7986-1

Entered by: SS Date: 12/13/21 Accepted by: [signature] Date: 12/14/21

Katahdin Analytical Serivces SO8173 Page 301 of 415

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Wet Chemistry Batch Report

Analyst Initials: SS
Date Analyzed: 09-DEC-21

Batch: WG311441
Prep Method: E300.0
Prep Chemist: SS

Sample	Samp Type	Method	Parameter	DF	Result	Rpt. Result	Units	PQL	Adj. PQL	MDL	Adj. MDL	RPD	Rec.
SO8030-2DLA	SAMP	EPA 300.0	Chloride	5	40.8025	41.	mg/L	2	10.	.0993	0.50		
WG311441-1	MBLANK	EPA 300.0	Chloride	1	.1054	J 0.10	mg/L	2	2.0	.0993	0.099		
WG311441-2	LCS	EPA 300.0	Chloride	1	3.4727	3.47	mg/L	2	2.0	.0993	0.099		92.5

Comments:

WG311441-1 SO8030-2
WG311441-2 SO8030-2

Entered by: SS Date: 12/13/21 Accepted by: ZF Date: 12/14/21

Katahdin Analytical Serivces SO8173 Page 302 of 415

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Wet Chemistry Batch Report

Analyst Initials: SS
Date Analyzed: 09-DEC-21

Batch: WG311443
Prep Method: N/A
Prep Chemist: SS

Sample	Samp Type	Method	Parameter	DF	Result		Rpt. Result	Units	PQL	Adj. PQL	MDL	Adj. MDL	RPD	Rec.
SO8173-11DL	SAMP	SW846 9056A	Chloride	2	34.0195		34	mg/L	2	4.0	.0993	0.20		
SO8173-13DL	SAMP	SW846 9056A	Sulfate	1	24.0246		24	mg/L	1	1.0	.0637	0.064		
SO8173-13DLA	SAMP	SW846 9056A	Chloride	2	32.7283		33	mg/L	2	4.0	.0993	0.20		
SO8173-15DL	SAMP	SW846 9056A	Sulfate	1	10.2942		10	mg/L	1	1.0	.0637	0.064		
SO8173-15DLA	SAMP	SW846 9056A	Chloride	2	28.446		28	mg/L	2	4.0	.0993	0.20		
SO8173-1DL	SAMP	SW846 9056A	Sulfate	1	7.3051		7.3	mg/L	1	1.0	.0637	0.064		
SO8173-1DLA	SAMP	SW846 9056A	Chloride	2	31.4208		31	mg/L	2	4.0	.0993	0.20		
SO8173-3DL	SAMP	SW846 9056A	Sulfate	1	12.8023		13	mg/L	1	1.0	.0637	0.064		
SO8173-3DLA	SAMP	SW846 9056A	Chloride	2	20.7519		21	mg/L	2	4.0	.0993	0.20		
SO8173-5DL	SAMP	SW846 9056A	Chloride	2	25.0595		25	mg/L	2	4.0	.0993	0.20		
SO8173-7DL	SAMP	SW846 9056A	Sulfate	1	23.3366		23	mg/L	1	1.0	.0637	0.064		
SO8173-7DLA	SAMP	SW846 9056A	Chloride	2	25.4506		25	mg/L	2	4.0	.0993	0.20		
SO8173-9DL	SAMP	SW846 9056A	Chloride	2	26.5761		26	mg/L	2	4.0	.0993	0.20		
WG311443-1	MBLANK	SW846 9056A	Chloride	1	.1054	J	0.10	mg/L	2	2.0	.0993	0.099		
WG311443-1	MBLANK	SW846 9056A	Sulfate	1	.55	J	0.55	mg/L	1	1.0	.0637	0.064		
WG311443-2	LCS	SW846 9056A	Chloride	1	3.4727		3.47	mg/L	2	2.0	.0993	0.099		92.5
WG311443-2DL	LCS	SW846 9056A	Sulfate	1	3.4426		3.44	mg/L	1	1.0	.0637	0.064		91.7
WG311443-3	MS	SW846 9056A	Chloride	2	34.7647		35.	mg/L	2	4.0	.0993	0.20		108.

Comments:

SO8173-3	MS/MSD
WG311443-1	SO8173-1
WG311443-2	SO8173-1
WG311443-3	SO8173-15

Entered by: SS Date: 12/13/21 Accepted by: EF Date: 12/14/21

Katahdin Analytical Serivces SO8173 Page 303 of 415

Katahdin
ANALYTICAL SERVICES

Accredited in accordance with nelac
Cert No E87604

Wet Chemistry Batch Report

Analyst Initials: SS
Date Analyzed: 09-DEC-21
10-DEC-21

Batch: WG311446
Prep Method: N/A
Prep Chemist: SS

Sample	Samp Type	Method	Parameter	DF	Result	Rpt. Result	Units	PQL	Adj. PQL	MDL	Adj. MDL	RPD	Rec.
SO8375-1	SAMP	SW846 9056A	Chloride	1	.1723	U 2.0	mg/L	2	2.0	.0993	0.099		
SO8375-1	SAMP	SW846 9056A	Sulfate	1	.0302	U 1.0	mg/L	1	1.0	.0637	0.064		
SO8375-10	SAMP	SW846 9056A	Chloride	10	186.8988	190	mg/L	2	20.	.0993	0.99		
SO8375-11	SAMP	SW846 9056A	Chloride	1	8.0682	8.1	mg/L	2	2.0	.0993	0.099		
SO8375-11	SAMP	SW846 9056A	Sulfate	1	3.2055	3.2	mg/L	1	1.0	.0637	0.064		
SO8375-12	SAMP	SW846 9056A	Chloride	10	88.7955	89.	mg/L	2	20.	.0993	0.99		
SO8375-12	SAMP	SW846 9056A	Sulfate	10	1.7174	U 10.	mg/L	1	10.	.0637	0.64		
SO8375-15	SAMP	SW846 9056A	Chloride	1	9.8175	9.8	mg/L	2	2.0	.0993	0.099		
SO8375-15	SAMP	SW846 9056A	Sulfate	1	4.5095	4.5	mg/L	1	1.0	.0637	0.064		
SO8375-16	SAMP	SW846 9056A	Chloride	10	167.9254	170	mg/L	2	20.	.0993	0.99		
SO8375-17	SAMP	SW846 9056A	Chloride	1	8.7995	8.8	mg/L	2	2.0	.0993	0.099		
SO8375-17	SAMP	SW846 9056A	Sulfate	1	6.6291	6.6	mg/L	1	1.0	.0637	0.064		
SO8375-18	SAMP	SW846 9056A	Sulfate	1	.3761	U 1.0	mg/L	1	1.0	.0637	0.064		
SO8375-5	SAMP	SW846 9056A	Chloride	10	198.0941	200	mg/L	2	20.	.0993	0.99		
SO8375-7	SAMP	SW846 9056A	Chloride	1	12.3027	12.	mg/L	2	2.0	.0993	0.099		
SO8375-7	SAMP	SW846 9056A	Sulfate	1	1.7964	1.8	mg/L	1	1.0	.0637	0.064		
SO8375-8	SAMP	SW846 9056A	Chloride	10	176.2396	180	mg/L	2	20.	.0993	0.99		
SO8375-9	SAMP	SW846 9056A	Chloride	1	14.8973	15.	mg/L	2	2.0	.0993	0.099		
SO8375-9	SAMP	SW846 9056A	Sulfate	1	6.2028	6.2	mg/L	1	1.0	.0637	0.064		
WG311446-1	MBLANK	SW846 9056A	Chloride	1	.1271	J 0.13	mg/L	2	2.0	.0993	0.099		
WG311446-1	MBLANK	SW846 9056A	Sulfate	1	.0289	U 0.50	mg/L	1	1.0	.0637	0.064		
WG311446-2	LCS	SW846 9056A	Chloride	1	3.547	3.55	mg/L	2	2.0	.0993	0.099		94.7
WG311446-2DL	LCS	SW846 9056A	Sulfate	1	3.4426	3.44	mg/L	1	1.0	.0637	0.064		91.7
WG311446-3	DUP	SW846 9056A	Chloride	1	15.4522	15.	mg/L	2	2.0	.0993	0.099	4	
WG311446-3	DUP	SW846 9056A	Sulfate	1	6.1465	6.1	mg/L	1	1.0	.0637	0.064	1	
WG311446-4	MS	SW846 9056A	Chloride	1	17.7321	18.	mg/L	2	2.0	.0993	0.099		95.4
WG311446-4	MS	SW846 9056A	Sulfate	1	7.0035	* 7.0	mg/L	1	1.0	.0637	0.064		29.6

Comments:

SO8375-1	Anions = Cl, SO4. VC
SO8375-10	Anions = Cl, SO4. VC
SO8375-11	Anions = Cl, SO4. VC
SO8375-12	Anions = Cl, SO4. VC
SO8375-15	Anions = Cl, SO4. VC
SO8375-16	Anions = Cl, SO4. VC
SO8375-17	Anions = Cl, SO4. VC
SO8375-18	Anions = Cl, SO4. VC
SO8375-5	Anions = Cl, SO4. VC
SO8375-7	Anions = Cl, SO4. VC
SO8375-8	Anions = Cl, SO4. VC
SO8375-9	Anions = Cl, SO4. VC
WG311446-1	SO8375-1
WG311446-2	SO8375-1
WG311446-3	SO8375-9
WG311446-4	SO8375-9

Entered by: SS Date: 12/13/21 Accepted by: [illegible] Date: 12/14/21

IC STANDARDS PREPARATION

Fill sheet in completely, file with each batch of samples analyzed.

MIX ID: W20545	Expiration Date:12/14/21	ICAL Date: 09/23/21

LYTE	INITIAL AMOUNT (mL)	OF	STOCK CONC. (mg/L)	TO	FINAL VOLUME(mL)	=	FINAL CONC.(mg/L)
Cl	2.0	OF	1000	TO	100	=	20
(as N)	0.8	OF	1000			=	8
(as N)	0.8	OF	1000			=	8
Br	4.0	OF	1000			=	40
O4	4.0	OF	1000			=	40
F	1.0	OF	1000			=	10
(as P)	1	OF	1000			=	10

WORKING STANDARDS Standards prepared on each day of use

INITIAL AMOUNT (mL)	OF	Final Volume (mL)	FINAL CONC. (mg/L)							STD ID*
			Cl	NO2	NO3	Br	SO4	PO4	F	
1	ICAL	1	20	8	8	40	40	10	10	IC7-092321
0.5	IC7	1	10	4	4	20	20	5	5	IC6-092321
0.25	IC7	1	5	2	2	10	10	2.5	2.5	IC5-092321
0.25	IC6	1	2.5	1	1	5	5	1.25	1.25	IC4-092321
0.1	IC6	1	1	0.4	0.4	2	2	0.5	.5	IC3-092321
0.1	IC3	1	0.1	0.04	0.04	0.2	0.2	0.05	.05	IC2-092321
0.5	IC7	1	10	4	4	20	20	5	5	CCV-120921

*** STD ID is prefix followed by the date of preparation (ie. IC6-020216)**

/MATRIX SPIKE MIX ID: W20544	Expiration Date:12/14/21

7.5 mL of High Purity multi-element IC standard solution "A" and 7.5 mL of High Purity multi-element standard solution "B" diluted to 100 mL. For MS, add 0.05 mL of mix to 1.0 mL of sample. For LCS, add 0.05 mL of mix to 1.0 mL of DI water.

Final Concentrations (mg/L):

	NO2 (as N)	NO3 (as N)	Br	SO4	PO4 (as P)	F	STD ID*
5	1.14	0.845	3.75	3.75	1.22	3.75	IC-LCS-120921

*** STD ID is prefix followed by the date of preparation (ie. IC-LCS-020216)**

Comments:
2x dil = 0.5mL 1x→1.0mL
20x dil = 0.05mL 1x→1.0mL

Pipettes: W3, W5
5x dil = 0.2mL 1x→1.0mL
50x dil = 0.02mL 1x→1.0mL

10x dil = 0.1mL 1x→1.0mL
100x dil = 0.1mL 10x→1.0mL

Sequence Overview

Sequence Details

Name:	**120921B REPROC**	*Created On:*	**10/Feb/16 13:48:22**
Directory:	**Instrument Data\ICS-2100\2021\12-DEC**	*Created By:*	**Katahdin Analytical**
Data Vault:	**ChromeleonLocal**	*Updated On:*	**13/Dec/21 11:37:14**
No. of Injections:	**50**	*Updated By:*	**Katahdin Analytical**

Injection Details

No.	Injection Name	Position	Type	Level	Inject Time	Status
1	CCV	1	Check Standard	06	09/Dec/21 12:58:36	Finished
2	CCB	2	Unknown		09/Dec/21 13:18:47	Finished
3	LCS	3	Check Standard	07	09/Dec/21 13:39:34	Finished
4	LCS	4	Check Standard	07	09/Dec/21 14:00:22	Finished
5	SO7986-1	5	Unknown		09/Dec/21 14:21:09	Finished
6	SO7986-1 DUP	6	Unknown		09/Dec/21 14:41:56	Finished
7	SO7986-1 MS	7	Unknown		09/Dec/21 15:02:43	Finished
8	SO8030-2	8	Unknown		09/Dec/21 15:23:30	Finished
9	SO8173-1	9	Unknown		09/Dec/21 15:44:17	Finished
10	SO8173-1	10	Unknown		09/Dec/21 16:05:04	Finished
11	SO8173-3	11	Unknown		09/Dec/21 16:25:52	Finished
12	SO8173-3	12	Unknown		09/Dec/21 16:46:40	Finished
13	CCV	13	Check Standard	06	09/Dec/21 17:07:27	Finished
14	CCB	14	Unknown		09/Dec/21 17:28:15	Finished
15	SO8173-5	15	Unknown		09/Dec/21 17:49:02	Finished
16	SO8173-7	16	Unknown		09/Dec/21 18:09:49	Finished
17	SO8173-7	17	Unknown		09/Dec/21 18:30:37	Finished
18	SO8173-9	18	Unknown		09/Dec/21 18:51:24	Finished
19	SO8173-11	19	Unknown		09/Dec/21 19:12:11	Finished
20	SO8173-13	20	Unknown		09/Dec/21 19:32:58	Finished
21	SO8173-13	21	Unknown		09/Dec/21 19:53:46	Finished
22	SO8173-15	22	Unknown		09/Dec/21 20:14:38	Finished
23	SO8173-15	23	Unknown		09/Dec/21 20:35:25	Finished
24	SO8173-15 MS	24	Unknown		09/Dec/21 20:56:13	Finished
25	CCV	25	Check Standard	06	09/Dec/21 21:17:01	Finished
26	CCB	26	Unknown		09/Dec/21 21:37:48	Finished
27	LCS	27	Check Standard	07	09/Dec/21 21:58:35	Finished
28	LCS	28	Check Standard	07	09/Dec/21 22:19:23	Finished
29	SO8375-1	29	Unknown		09/Dec/21 22:40:10	Finished
30	SO8375-5	30	Unknown		09/Dec/21 23:00:58	Finished
31	SO8375-6	31	Unknown		09/Dec/21 23:21:45	Finished
32	SO8375-7	32	Unknown		09/Dec/21 23:42:33	Finished
33	SO8375-8	33	Unknown		10/Dec/21 00:03:20	Finished
34	LCS	34	Check Standard	07	10/Dec/21 00:24:07	Finished
35	SO8375-9	35	Unknown		10/Dec/21 00:44:54	Finished
36	SO8375-9 DUP	36	Unknown		10/Dec/21 01:05:41	Finished
37	CCV	37	Check Standard	06	10/Dec/21 01:26:29	Finished
38	CCB	38	Unknown		10/Dec/21 01:47:16	Finished
39	SO8375-9 MS	39	Unknown		10/Dec/21 02:08:03	Finished
40	SO8375-10	40	Unknown		10/Dec/21 02:28:51	Finished
41	SO8375-11	41	Unknown		10/Dec/21 02:49:39	Finished
42	SO8375-12	42	Unknown		10/Dec/21 03:10:26	Finished

43	SO8375-13	43	Unknown		10/Dec/21 03:31:14	Finished
44	SO8375-14	44	Unknown		10/Dec/21 03:52:01	Finished
45	SO8375-15	45	Unknown		10/Dec/21 04:12:49	Finished
46	SO8375-16	46	Unknown		10/Dec/21 04:33:36	Finished
47	SO8375-17	47	Unknown		10/Dec/21 04:54:23	Finished
48	SO8375-18	48	Unknown		10/Dec/21 05:15:10	Finished
49	CCV	49	Check Standard	06	10/Dec/21 05:35:57	Finished
50	CCB	50	Unknown		10/Dec/21 05:56:45	Finished

Katahdin Analytical Services

ION CHROMATOGRAPHY RUNLOG

Dionex ICS-2100 (Instrument IC-3)

Analysis Date: 12/09/21	**Analytical Column S/N:** 210423084	**Calibration Date:** 09/23/21
Analysis Sequence: 1209213	**Guard Column S/N:** 210727027	**Calibration Sequence:** 092321 A cal
Analyst: SS	**Suppressor S/N:** 180825029	☐ If box at left is checked, continued from previous page. Refer to previous page for header information.

Reporting / Reanalysis Codes:
✓ Report without manipulation
S Report, peak automatically reintegrated with SmartPeak
M Report, peak manually integrated
A Report, peak manually assigned
R Do not report, reanalyze sample

Method Codes:
E EPA 300.0
SW SW846 9056A

Katahdin Sample Number	Dilution Factor	Method Code	Report or Reanalyze (enter appropriate code): F	Cl	NO_2	SO_4	Br	NO_3	PO_4	Comments
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		
LCS			✓	✓	✓					
LCS						✓				
SO 7986-1	10	DW		✓						
+ Dup	10	1		✓						
+ MS	10	1		✓						
8030-2	5	E		✓						
8173-1	1	S				✓				
-1	2	|		✓						
-3	1	|				✓				
-3	2	|		✓						
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		
8173-5	2	S		✓						
-7	1	|				✓				
-7	2	|		✓						
-9	2	|		✓						
-11	2	|		✓						
-13	1	|				✓				
-13	2	|		✓						
-15	1	|				✓				

BW: WG311440 → R582712
E: WG311441 → R582713
S: WG311443 → R582714
S: WG311446 → R582715

Reviewed by: _____ Review Date: _____

QAWL1026 - 000343

Katahdin Analytical Services **ION CHROMATOGRAPHY RUNLOG** Dionex ICS-2100 (Instrument IC-3)

Analysis Date:	**Analytical Column S/N:**	**Calibration Date:**
Analysis Sequence:	**Guard Column S/N:**	**Calibration Sequence:**
Analyst:	**Suppressor S/N:**	☑ If box at left is checked, continued from previous page. Refer to previous page for header information.

Reporting / Reanalysis Codes: ✓ Report without manipulation; S Report, peak automatically reintegrated with SmartPeak; M Report, peak manually integrated; A Report, peak manually assigned; R Do not report, reanalyze sample

Method Codes: E EPA 300.0; SW SW846 9056A

Katahdin Sample Number	Dilution Factor	Method Code	Report or Reanalyze (enter appropriate code): F	Cl	NO_2	SO_4	Br	NO_3	PO_4	Comments
8173-15	2	S		✓						
-15MS	2	1		✓						
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		
LCS			✓	✓	✓			✓		
LCS			✓	✓	✓			✓		
8375-1	1	S		✓		✓				
-5	10	|		✓		R				SO_4 = 20X
-6	10	|		R		R				Cl = 20X, SO_4 = 1000X
-7	1	|		✓		✓				
-8	10	—		✓		R				SO_4 = 50CX
LCS										
-9	1	S		✓		✓				
-9 Dup	1	1		✓		✓				
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		
-9 MS	1	S		✓		✓				
-10	10	|		✓		R				SO_4 = 500X
-11	1	|		✓		✓				
-12	10	|		✓		✓				
-13	10	|		R		R				Cl = 20X, SO_4 = 500X
-14	10	1		R		R				Cl = 20X, SO_4 = 1000X

Reviewed by: _____ Review Date: _____

QAWL1026 - 000343

0000092

Katahdin Analytical Services **ION CHROMATOGRAPHY RUNLOG** Dionex ICS-2100 (Instrument IC-3)

Analysis Date:	**Analytical Column S/N:**	**Calibration Date:**
Analysis Sequence:	**Guard Column S/N:**	**Calibration Sequence:**
Analyst:	**Suppressor S/N:**	☑ If box at left is checked, continued from previous page. Refer to previous page for header information.

Reporting / Reanalysis Codes:
✓ Report without manipulation
S Report, peak automatically reintegrated with SmartPeak
M Report, peak manually integrated
A Report, peak manually assigned
R Do not report, reanalyze sample

Method Codes:
E EPA 300.0
SW SW846 9056A

Katahdin Sample Number	Dilution Factor	Method Code	Report or Reanalyze (enter appropriate code): F	Cl	NO_2	SO_4	Br	NO_3	PO_4	Comments
8375-15	1	S		✓		✓				
-16	10	1		✓		R				SO_4 = 100X
-17	1	1		✓		✓				
-18	1	—		R		✓				Cl = 5X
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		

SS 12/13/21

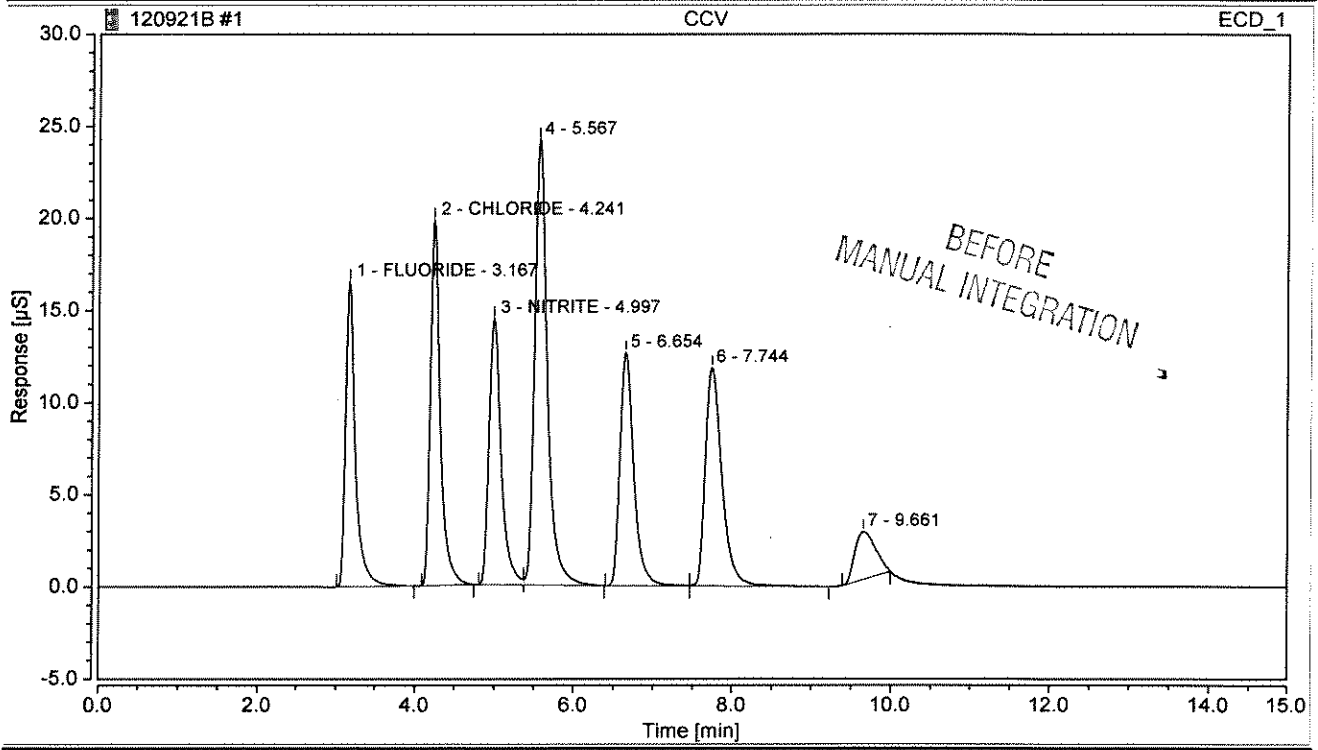
Reviewed by: _____ Review Date: _____

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.98**
Vial Number:	**1**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 12:58**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

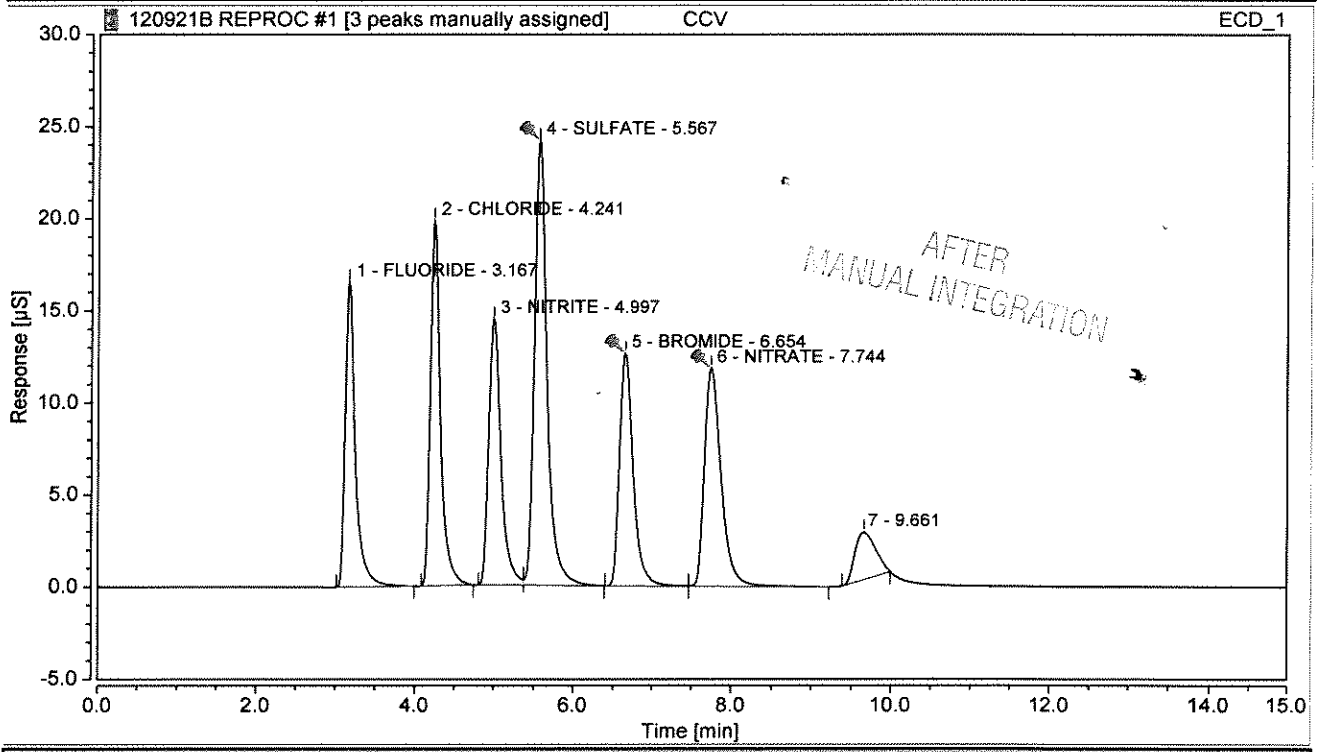
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	2.426	16.569	12.99	16.23	4.9611	-0.7773
2	CHLORIDE	4.241	2.909	19.839	15.57	19.43	9.5349	-4.6508
3	NITRITE	4.997	2.575	14.452	13.79	14.15	3.8489	-3.7773
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**7.910**	**50.859**	**42.34**	**49.81**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.98**
Vial Number:	**1**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 12:58**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

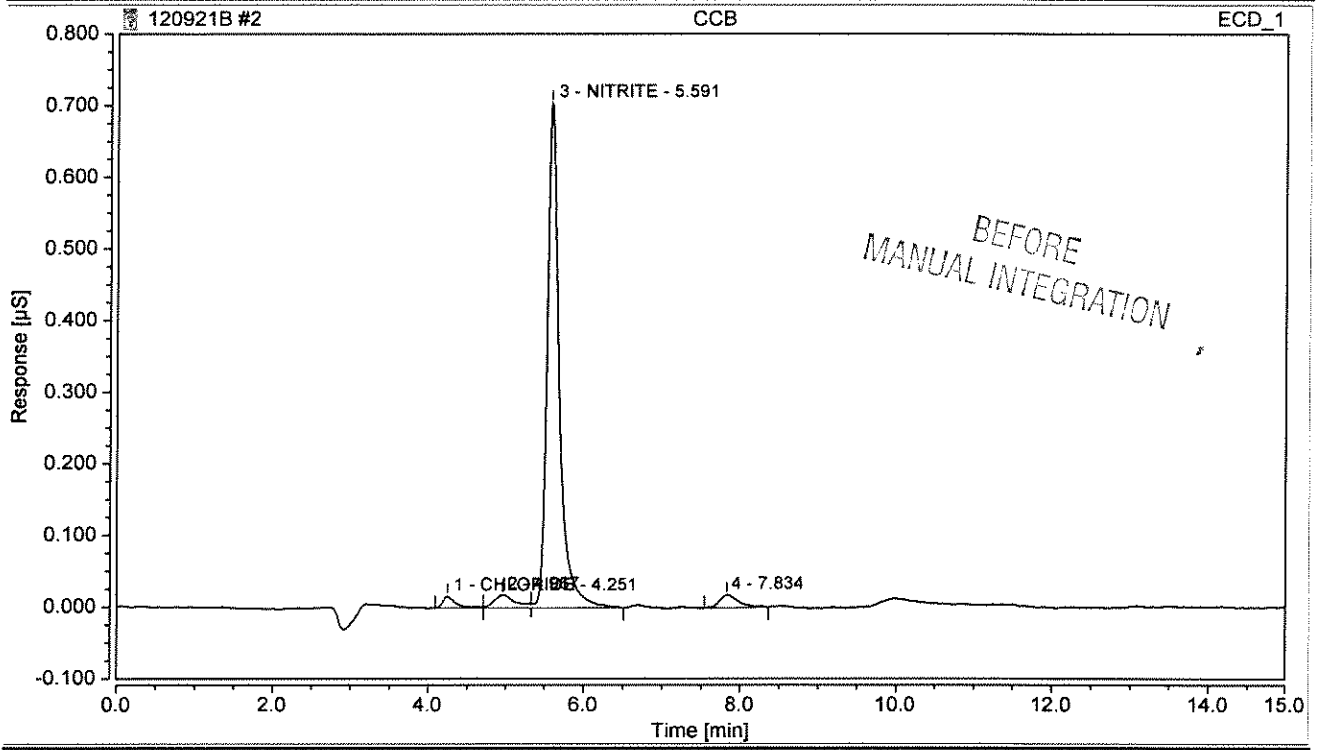
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	2.426	16.569	12.99	16.23	4.9611	-0.7773
2	CHLORIDE	4.241	2.909	19.839	15.57	19.43	9.5349	-4.6508
3	NITRITE	4.997	2.575	14.452	13.79	14.15	3.8489	-3.7773
4	SULFATE	5.567	4.505	24.176	24.12	23.68	19.5513	-2.2435
5	BROMIDE	6.654	2.576	12.645	13.79	12.38	19.4968	-2.5158
6	NITRATE	7.744	2.911	11.845	15.58	11.60	3.7968	-5.0806
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**17.903**	**99.525**	**95.83**	**97.47**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.99**
Vial Number:	**2**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 13:18**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

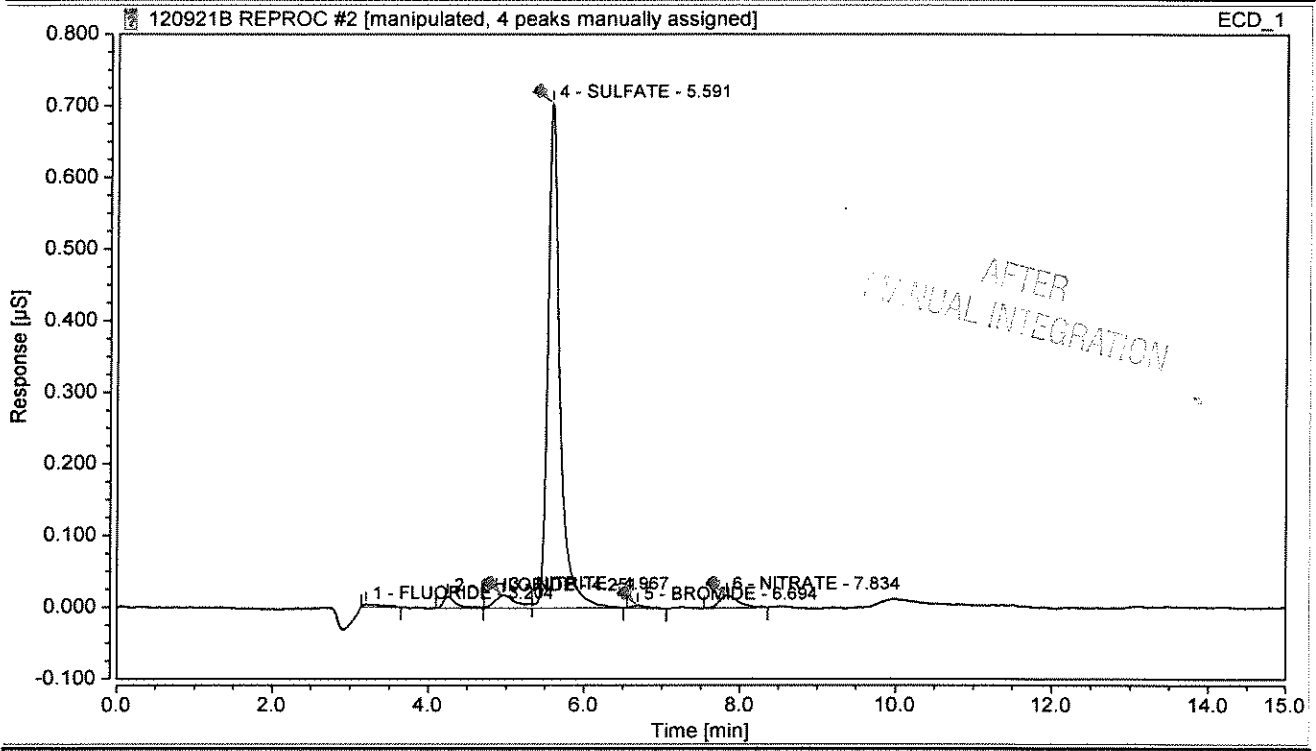
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	CHLORIDE	4.251	0.003	0.016	2.21	2.16	0.1054	n.a.
3	NITRITE	5.591	0.127	0.705	90.17	93.13	0.1894	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.130**	**0.721**	**92.39**	**95.30**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.99**
Vial Number:	**2**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 13:18**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

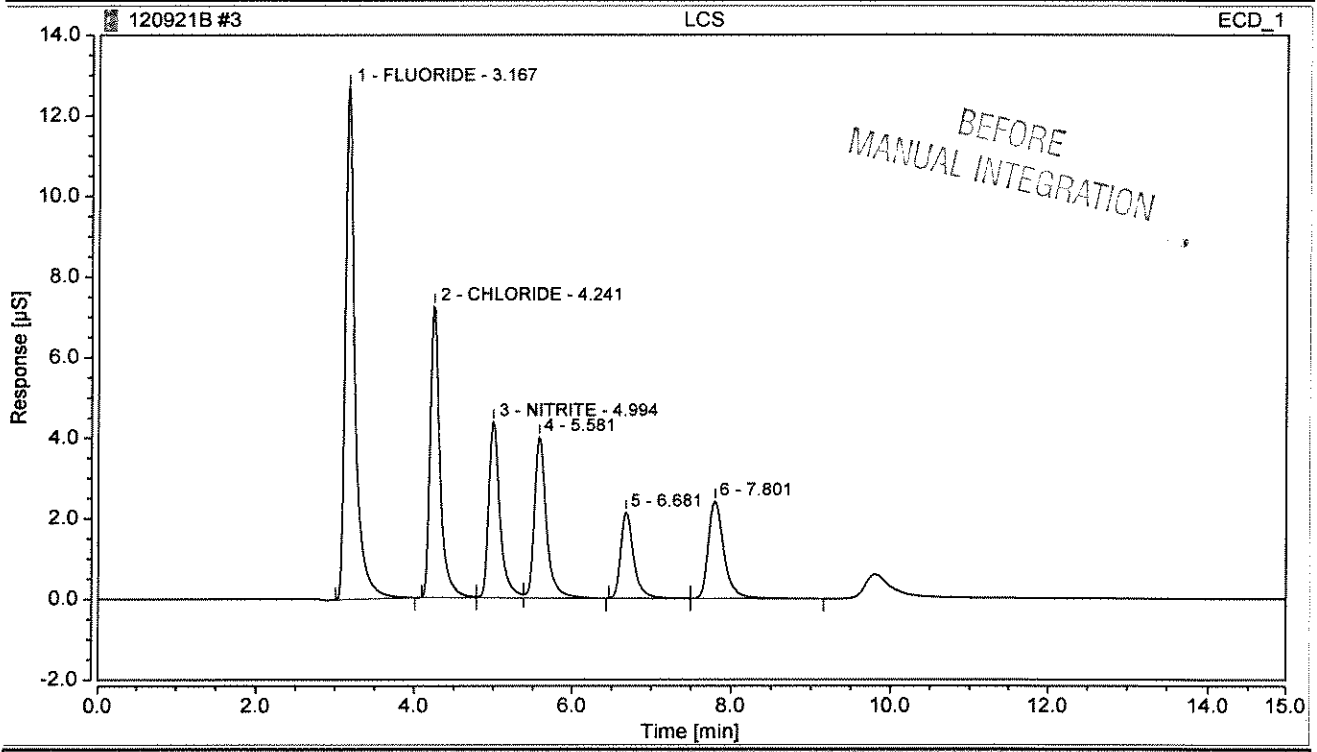
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.204	0.001	0.004	0.82	0.47	0.0024	n.a.
2	CHLORIDE	4.251	0.003	0.016	2.18	2.14	0.1054	n.a.
3	NITRITE	4.967	0.006	0.018	3.99	2.34	0.0085	n.a.
4	SULFATE	5.591	0.127	0.705	88.89	92.22	0.5500	n.a.
5	BROMIDE	6.694	0.001	0.004	0.61	0.50	0.0059	n.a.
6	NITRATE	7.834	0.005	0.018	3.51	2.32	0.0520	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.143**	**0.765**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.98**
Vial Number:	**3**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 13:39**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

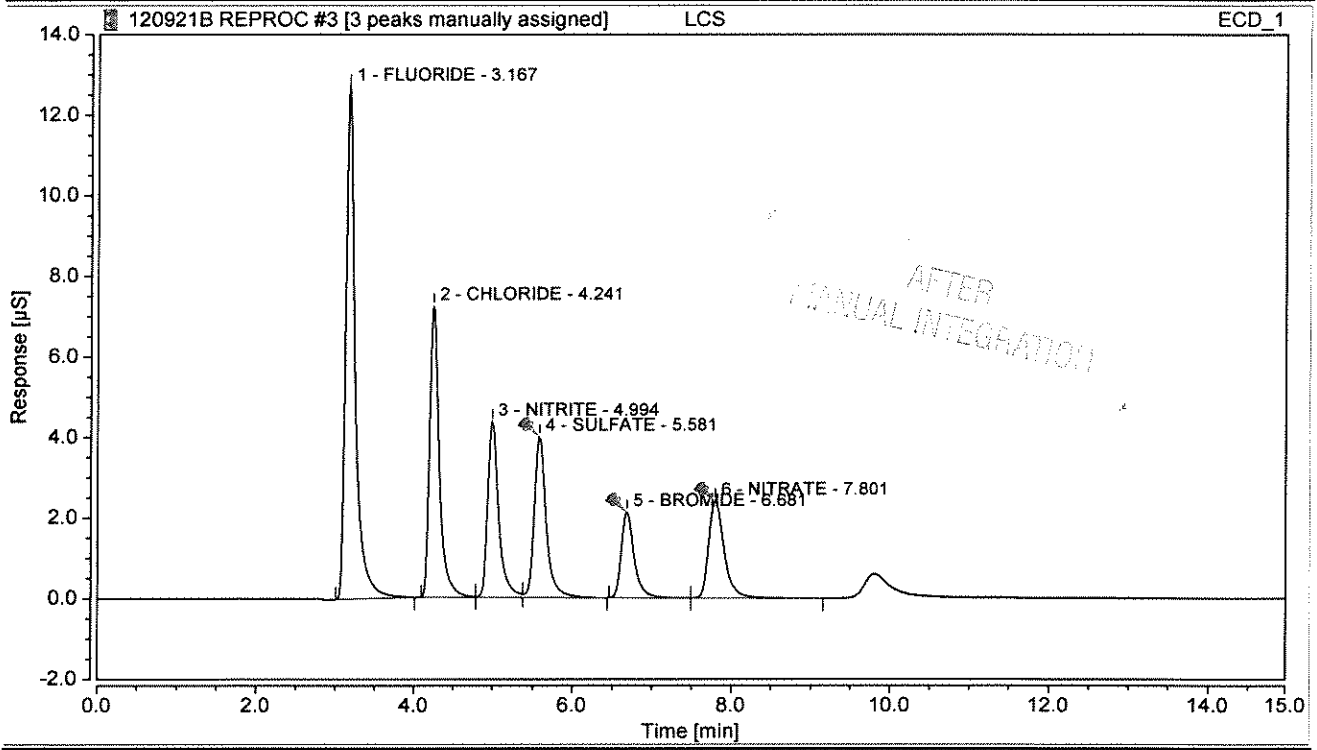
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	1.826	12.727	34.77	38.71	3.7330	-0.4530
2	CHLORIDE	4.241	1.041	7.232	19.82	22.00	3.4727	-7.3951
3	NITRITE	4.994	0.722	4.366	13.74	13.28	1.0785	-5.3980
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**3.588**	**24.325**	**68.34**	**74.00**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.98**
Vial Number:	**3**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 13:39**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

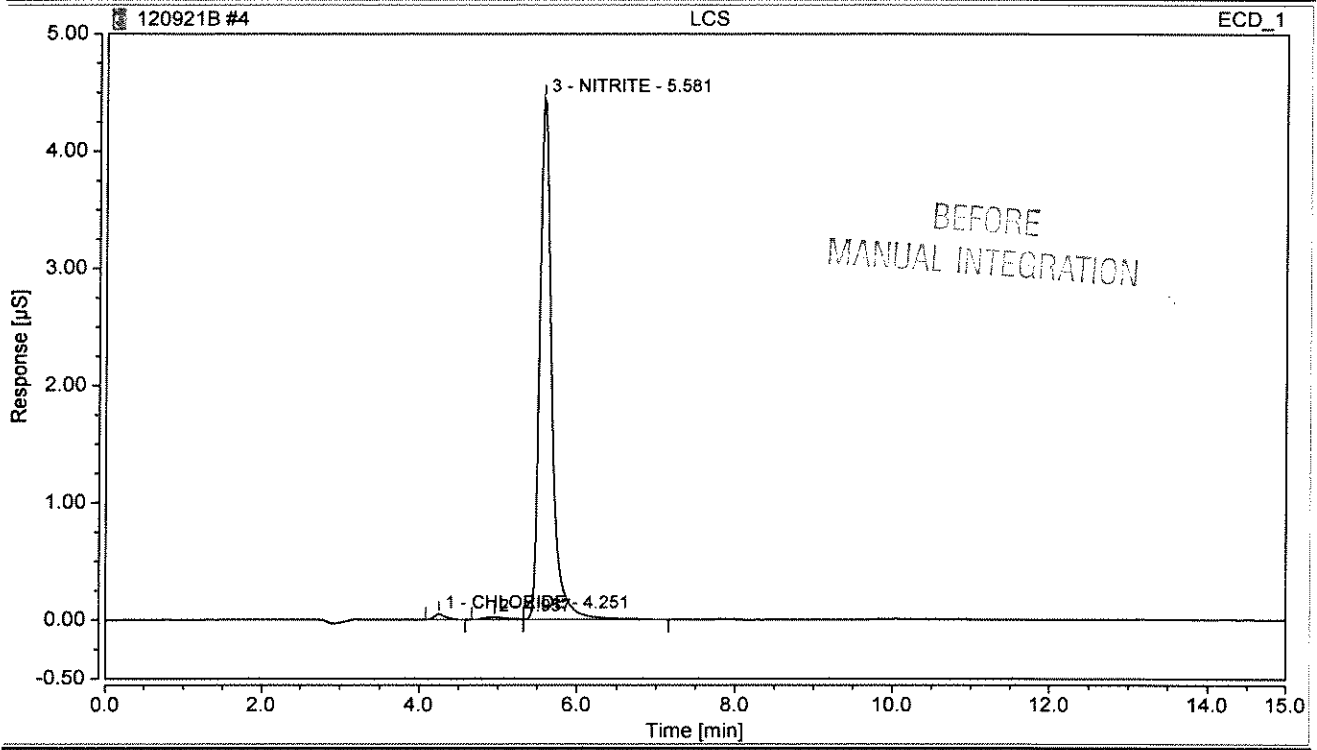
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	1.826	12.727	34.77	38.71	3.7330	-0.4530
2	CHLORIDE	4.241	1.041	7.232	19.82	22.00	3.4727	-7.3951
3	NITRITE	4.994	0.722	4.366	13.74	13.28	1.0785	-5.3980
4	SULFATE	5.581	0.712	4.001	13.55	12.17	3.0882	-17.6493
5	BROMIDE	6.681	0.407	2.134	7.76	6.49	3.2904	-12.2554
6	NITRATE	7.801	0.543	2.414	10.34	7.34	0.7452	-11.8147
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.250**	**32.873**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.99**
Vial Number:	**4**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 14:00**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

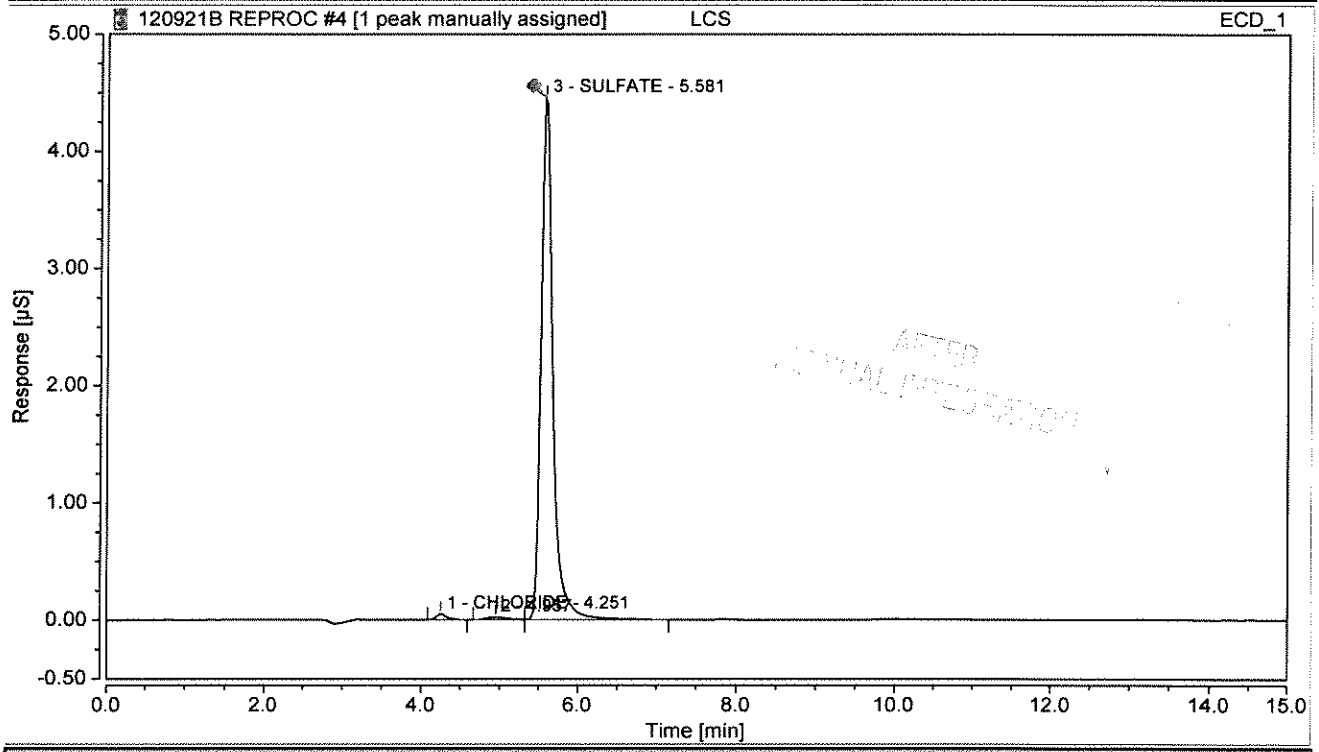
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	CHLORIDE	4.251	0.008	0.048	0.97	1.07	0.1207	-96.7825
3	NITRITE	5.581	0.793	4.454	98.19	98.45	1.1856	3.9969
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.801**	**4.502**	**99.15**	**99.51**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.99**
Vial Number:	**4**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 14:00**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

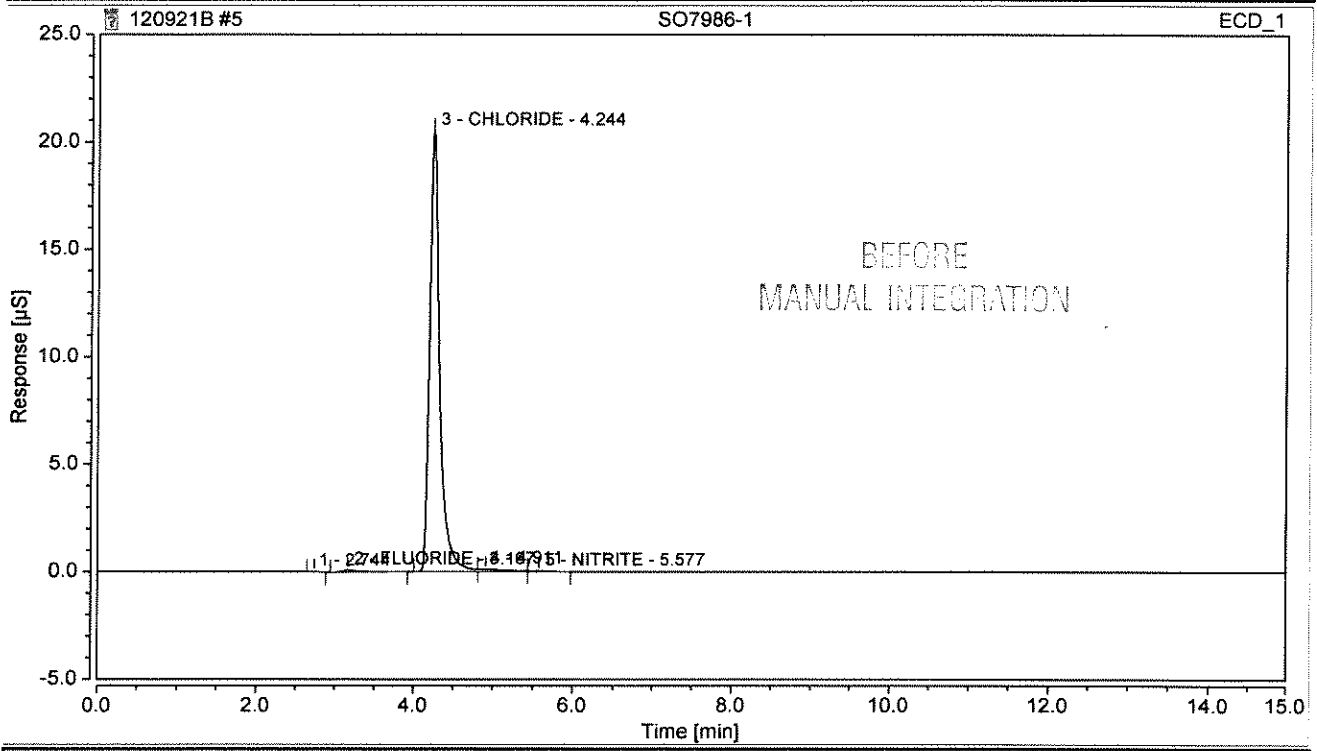
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	CHLORIDE	4.251	0.008	0.048	0.97	1.07	0.1207	-96.7825
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	SULFATE	5.581	0.793	4.454	98.19	98.45	3.4426	-8.1972
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.801**	**4.502**	**99.15**	**99.51**		

Chromatogram and Results

Injection Details

Injection Name:	**SO7986-1**	*Run Time (min):*	**14.98**
Vial Number:	**5**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**09/Dec/21 14:21**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

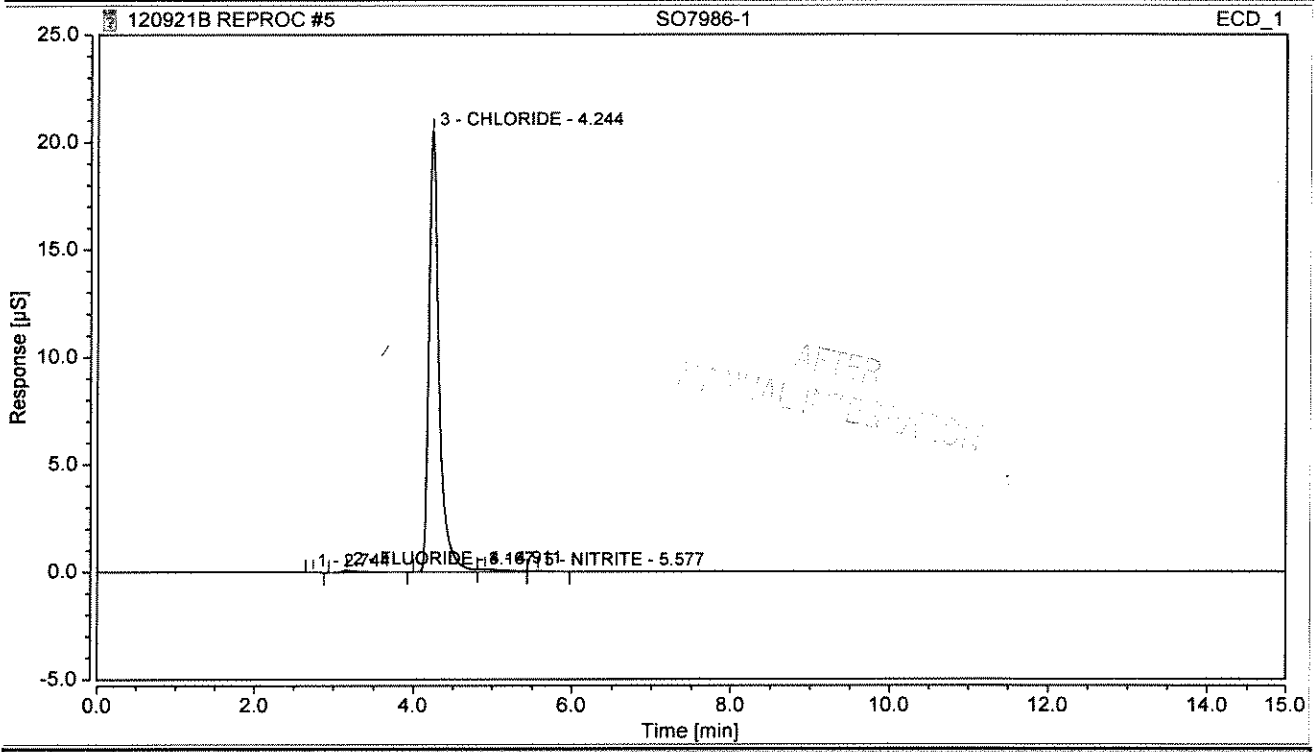
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.167	0.025	0.099	0.78	0.48	0.5024	n.a.
3	CHLORIDE	4.244	3.062	20.515	97.56	98.79	100.3272	n.a.
5	NITRITE	5.577	0.006	0.024	0.20	0.11	0.0917	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**3.093**	**20.637**	**98.53**	**99.38**		

Chromatogram and Results

Injection Details

Injection Name:	**SO7986-1**	*Run Time (min):*	**14.98**
Vial Number:	**5**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**09/Dec/21 14:21**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

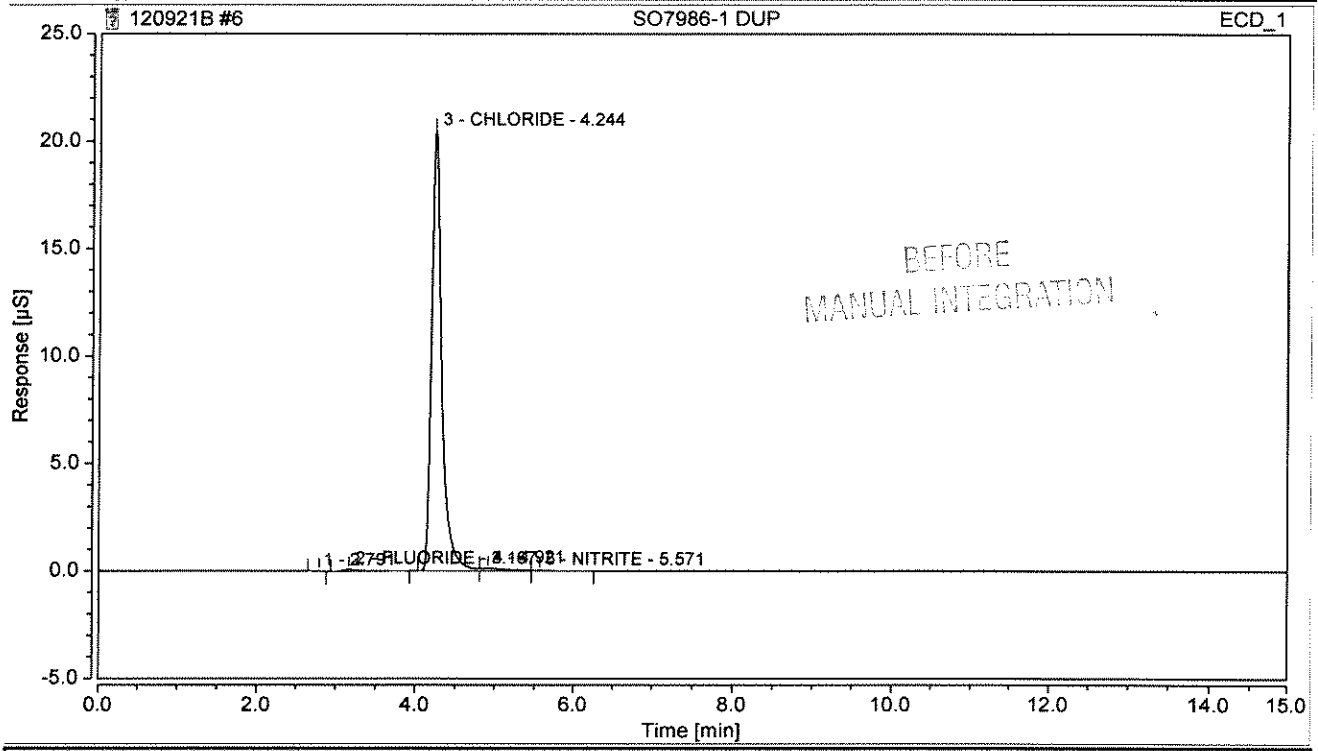
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.167	0.025	0.099	0.78	0.48	0.5024	n.a.
3	CHLORIDE	4.244	3.062	20.515	97.56	98.79	100.3272	n.a.
5	NITRITE	5.577	0.006	0.024	0.20	0.11	0.0917	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**3.093**	**20.637**	**98.53**	**99.38**		

Chromatogram and Results

Injection Details

Injection Name:	**SO7986-1 DUP**	*Run Time (min):*	**14.98**
Vial Number:	**6**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**09/Dec/21 14:41**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

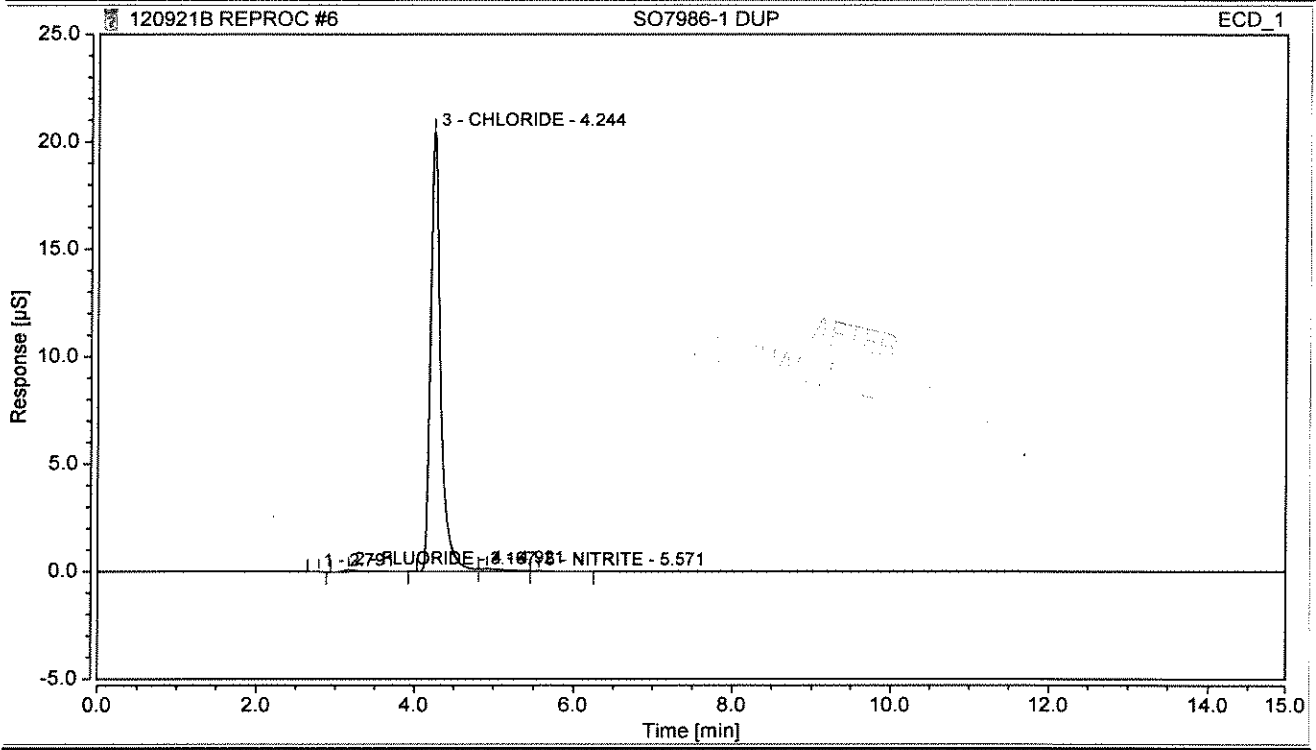
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.167	0.024	0.098	0.76	0.47	0.4849	n.a.
3	CHLORIDE	4.244	3.059	20.486	97.49	98.77	100.2371	n.a.
5	NITRITE	5.571	0.008	0.025	0.24	0.12	0.1124	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**3.091**	**20.610**	**98.48**	**99.37**		

Chromatogram and Results

Injection Details

Injection Name:	**SO7986-1 DUP**	*Run Time (min):*	**14.98**
Vial Number:	**6**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**09/Dec/21 14:41**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

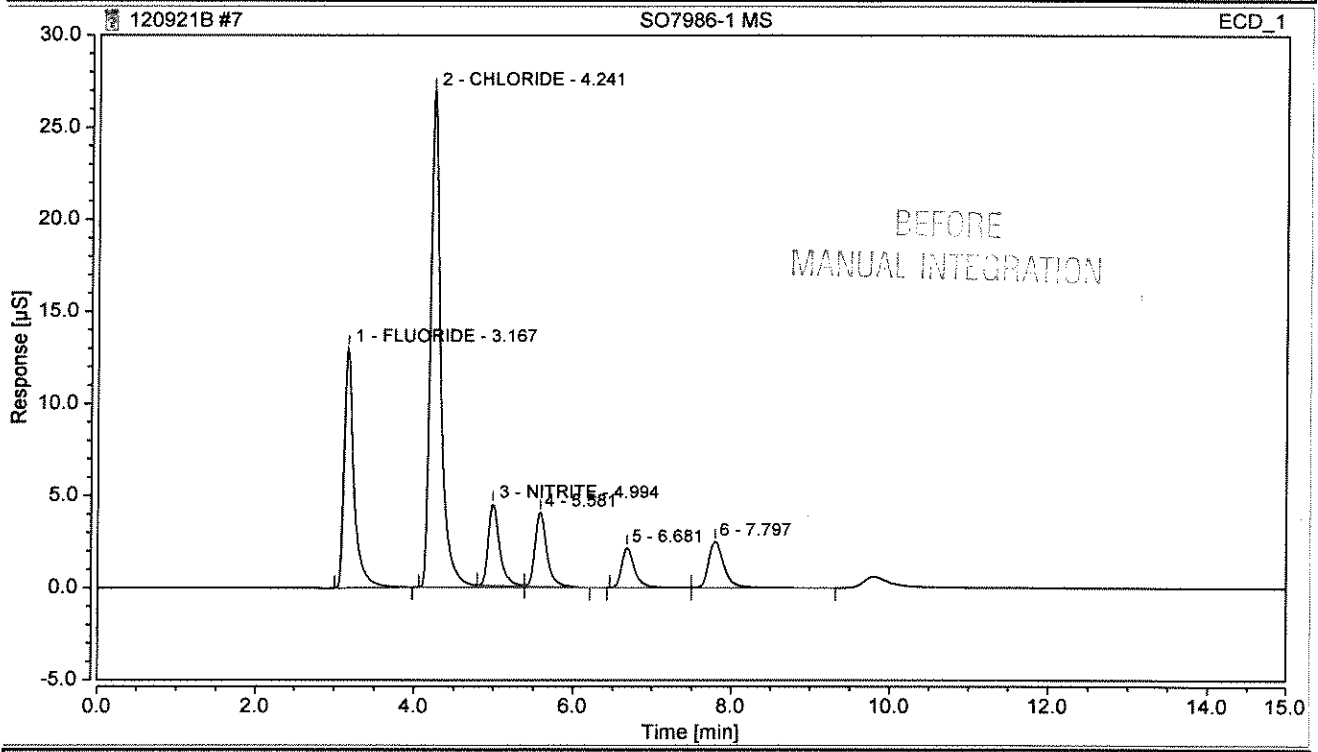
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.167	0.024	0.098	0.76	0.47	0.4849	n.a.
3	CHLORIDE	4.244	3.059	20.486	97.49	98.77	100.2371	n.a.
5	NITRITE	5.571	0.008	0.025	0.24	0.12	0.1124	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**3.091**	**20.610**	**98.48**	**99.37**		

Chromatogram and Results

Injection Details

Injection Name:	**SO7986-1 MS**	*Run Time (min):*	**14.98**
Vial Number:	**7**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**09/Dec/21 15:02**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

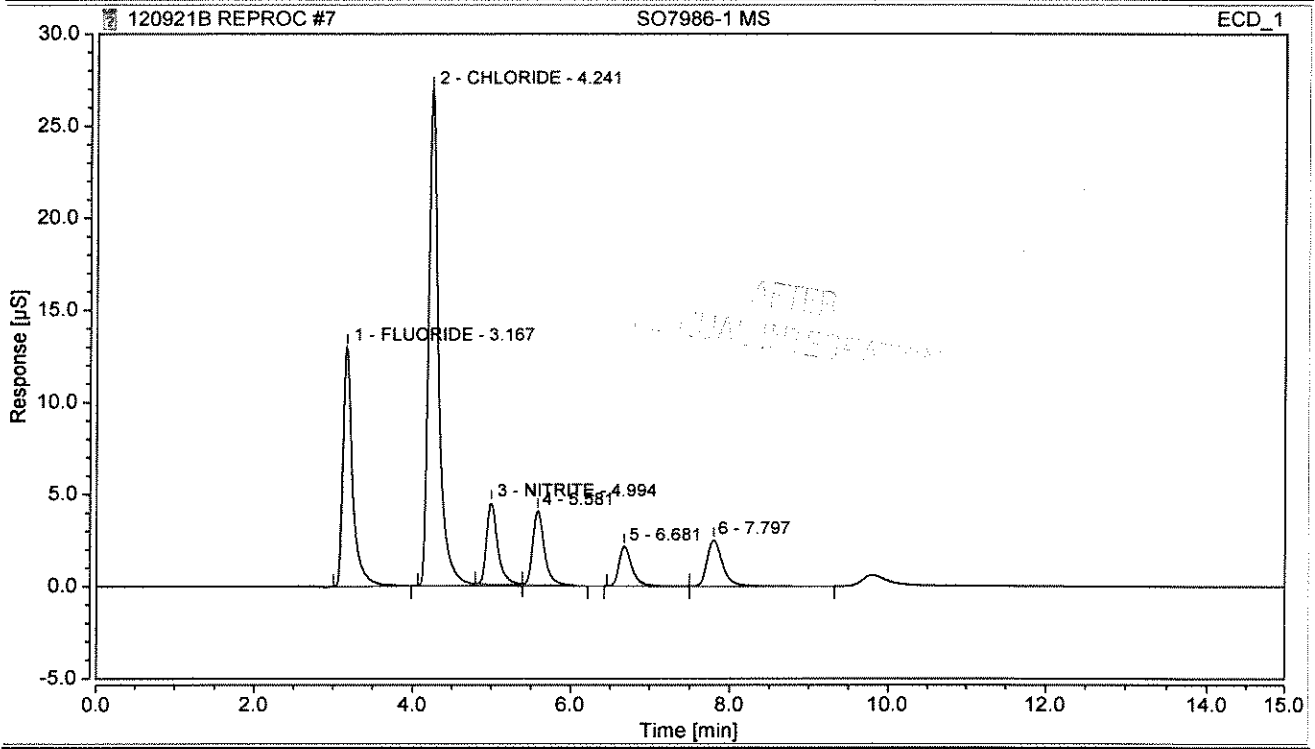
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	1.865	13.047	22.19	24.54	38.1256	n.a.
2	CHLORIDE	4.241	4.126	26.957	49.10	50.70	134.8432	n.a.
3	NITRITE	4.994	0.728	4.443	8.67	8.36	10.8843	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.719**	**44.447**	**79.96**	**83.60**		

Chromatogram and Results

Injection Details

Injection Name:	**SO7986-1 MS**	*Run Time (min):*	**14.98**
Vial Number:	**7**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**09/Dec/21 15:02**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

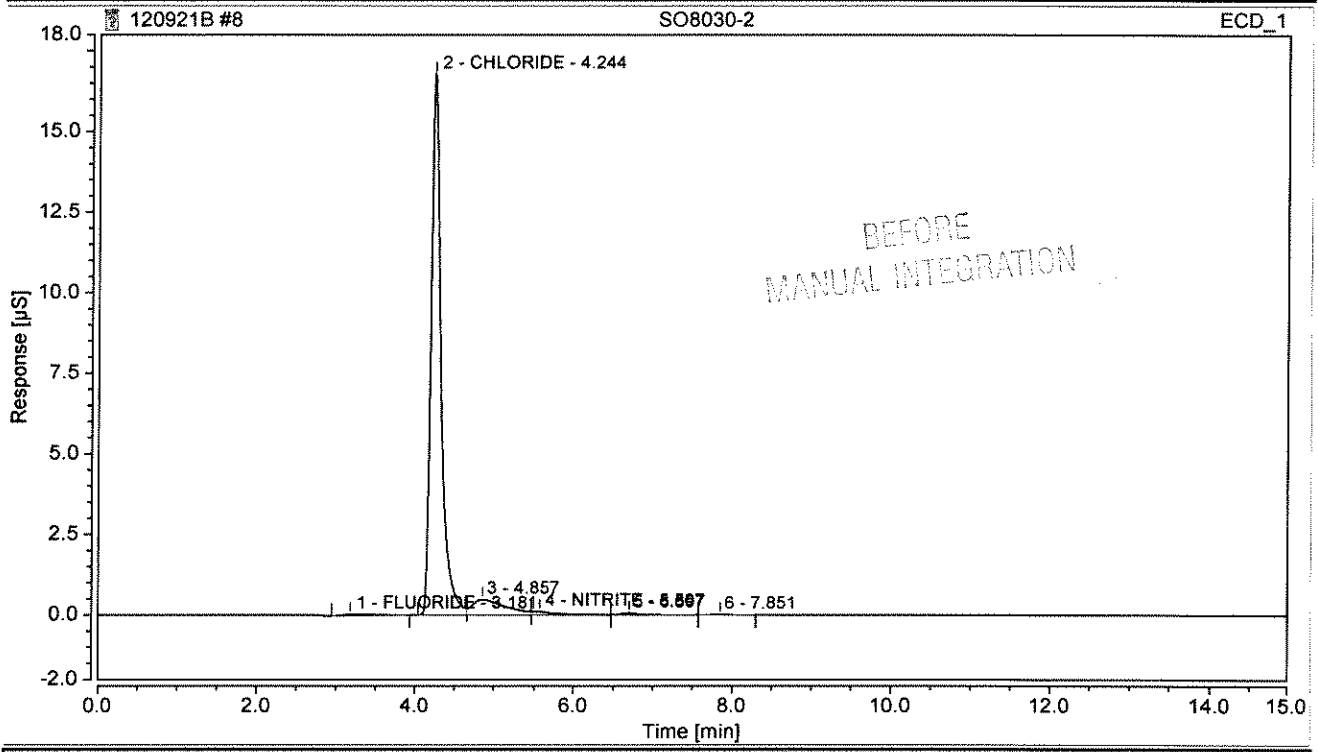
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	1.865	13.047	22.19	24.54	38.1256	n.a.
2	CHLORIDE	4.241	4.126	26.957	49.10	50.70	134.8432	n.a.
3	NITRITE	4.994	0.728	4.443	8.67	8.36	10.8843	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.719**	**44.447**	**79.96**	**83.60**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8030-2**	*Run Time (min):*	**14.98**
Vial Number:	**8**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**5.0**
Injection Date/Time:	**09/Dec/21 15:23**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

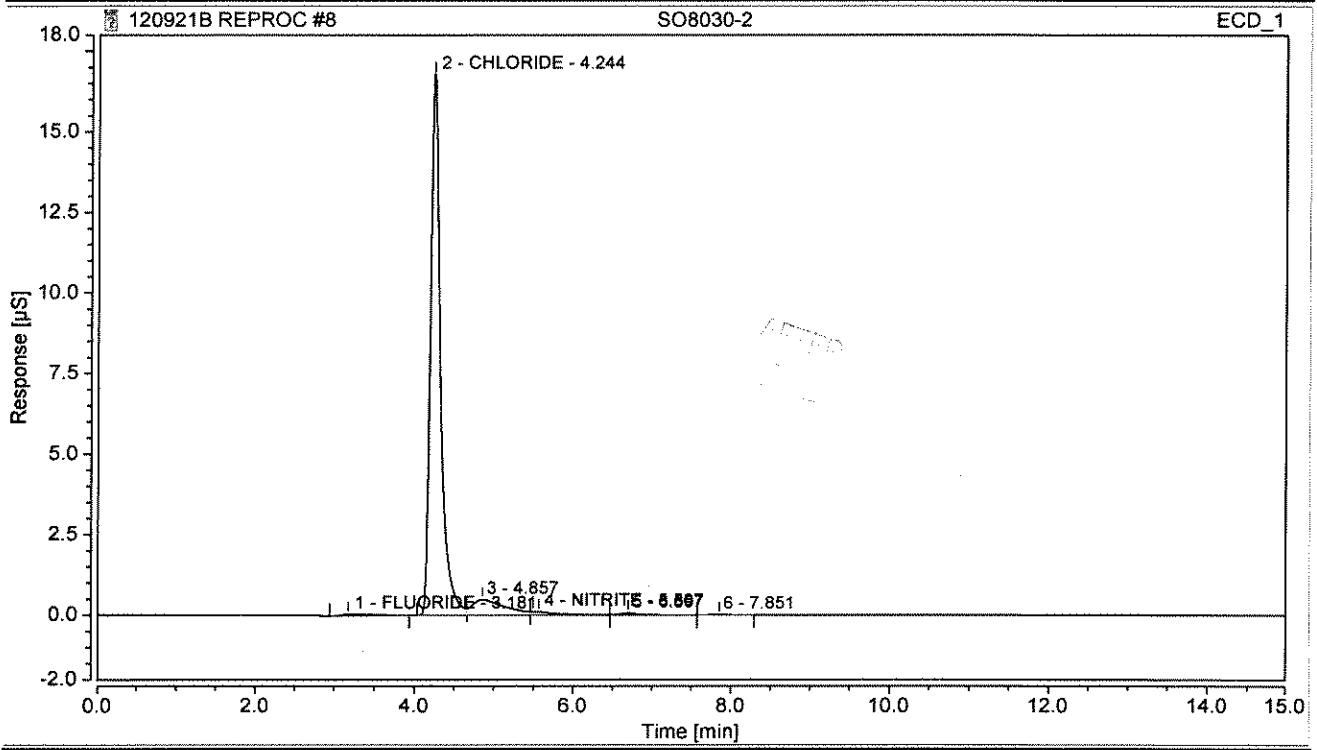
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.181	0.020	0.044	0.72	0.25	0.2045	n.a.
2	CHLORIDE	4.244	2.485	16.776	88.90	96.03	40.8025	n.a.
4	NITRITE	5.567	0.039	0.103	1.39	0.59	0.2897	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**2.544**	**16.923**	**91.00**	**96.87**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8030-2**	*Run Time (min):*	**14.98**
Vial Number:	**8**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**5.0**
Injection Date/Time:	**09/Dec/21 15:23**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

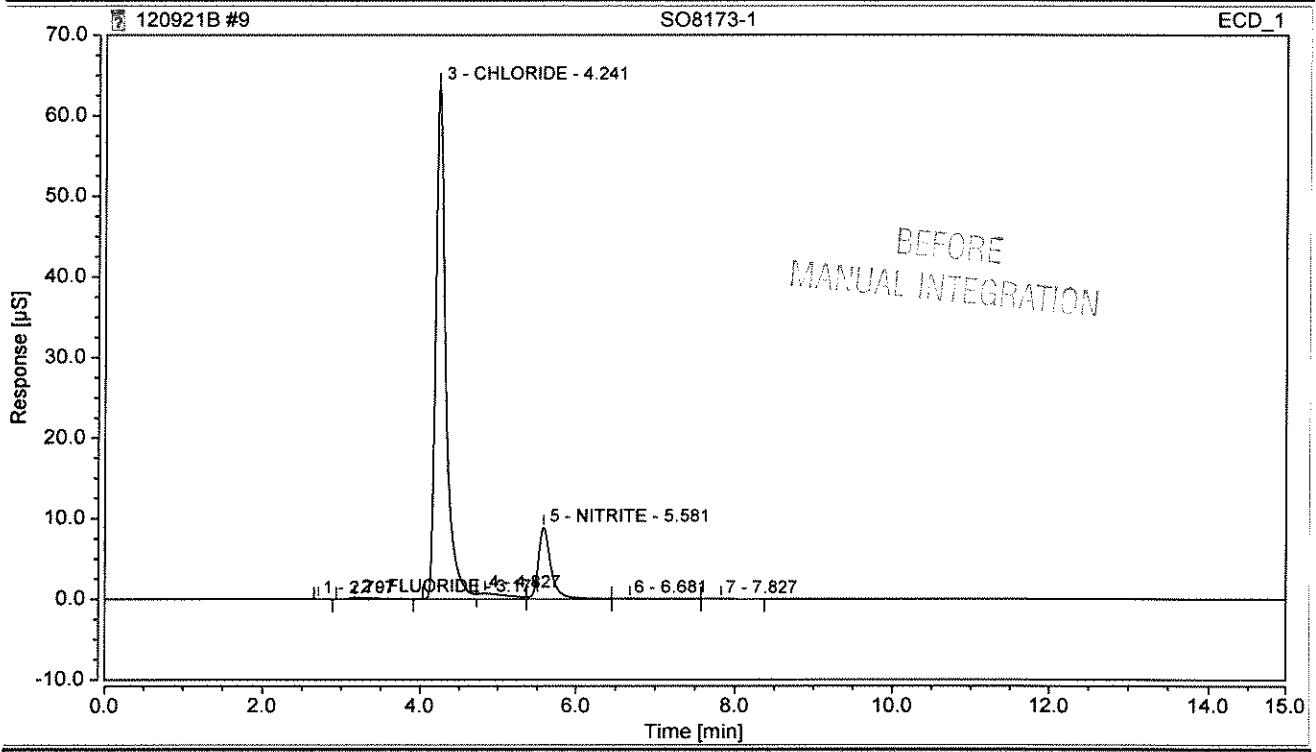
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.181	0.020	0.044	0.72	0.25	0.2045	n.a.
2	CHLORIDE	4.244	2.485	16.776	88.90	96.03	40.8025	n.a.
4	NITRITE	5.567	0.039	0.103	1.39	0.59	0.2897	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**2.544**	**16.923**	**91.00**	**96.87**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-1**	*Run Time (min):*	**14.98**
Vial Number:	**9**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 15:44**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

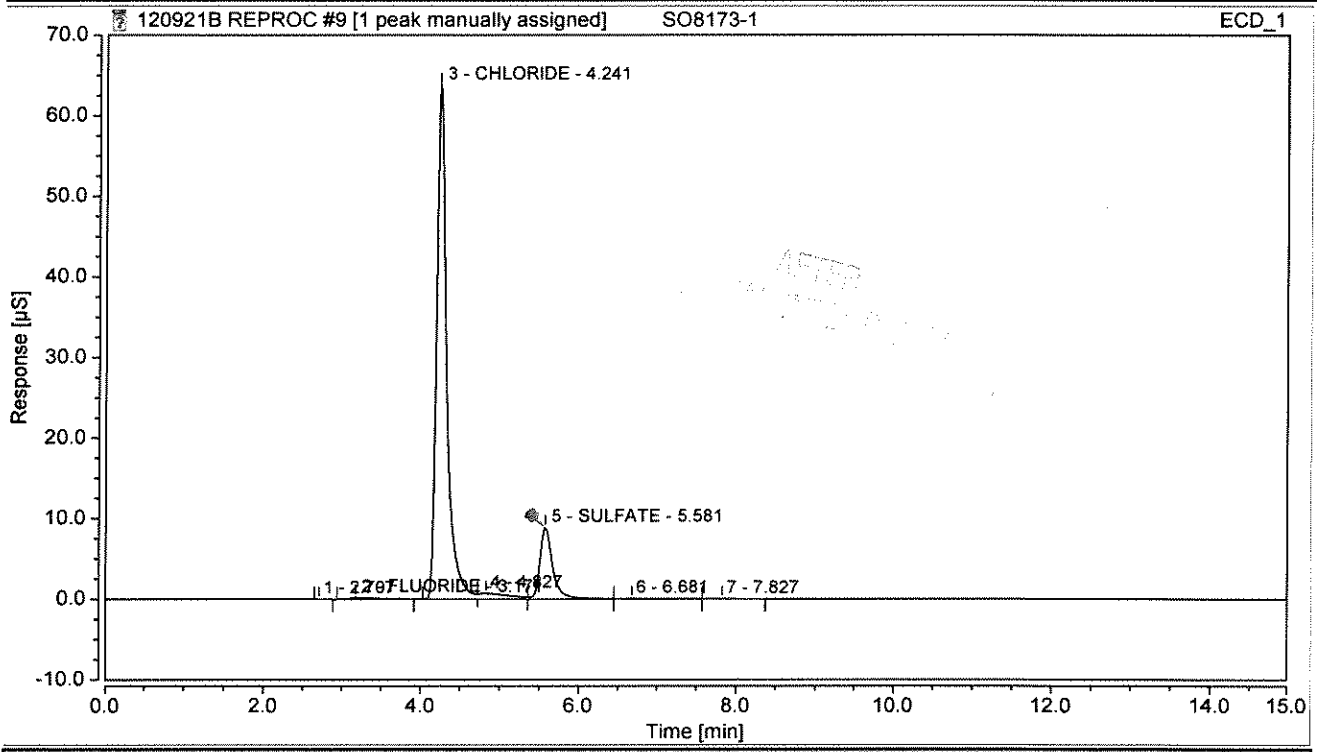
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.171	0.057	0.204	0.49	0.28	0.1165	n.a.
3	CHLORIDE	4.241	9.665	63.753	82.33	86.64	31.4620	n.a.
5	NITRITE	5.581	1.683	8.863	14.34	12.05	2.5157	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.406**	**72.820**	**97.15**	**98.97**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-1**	*Run Time (min):*	**14.98**
Vial Number:	**9**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 15:44**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

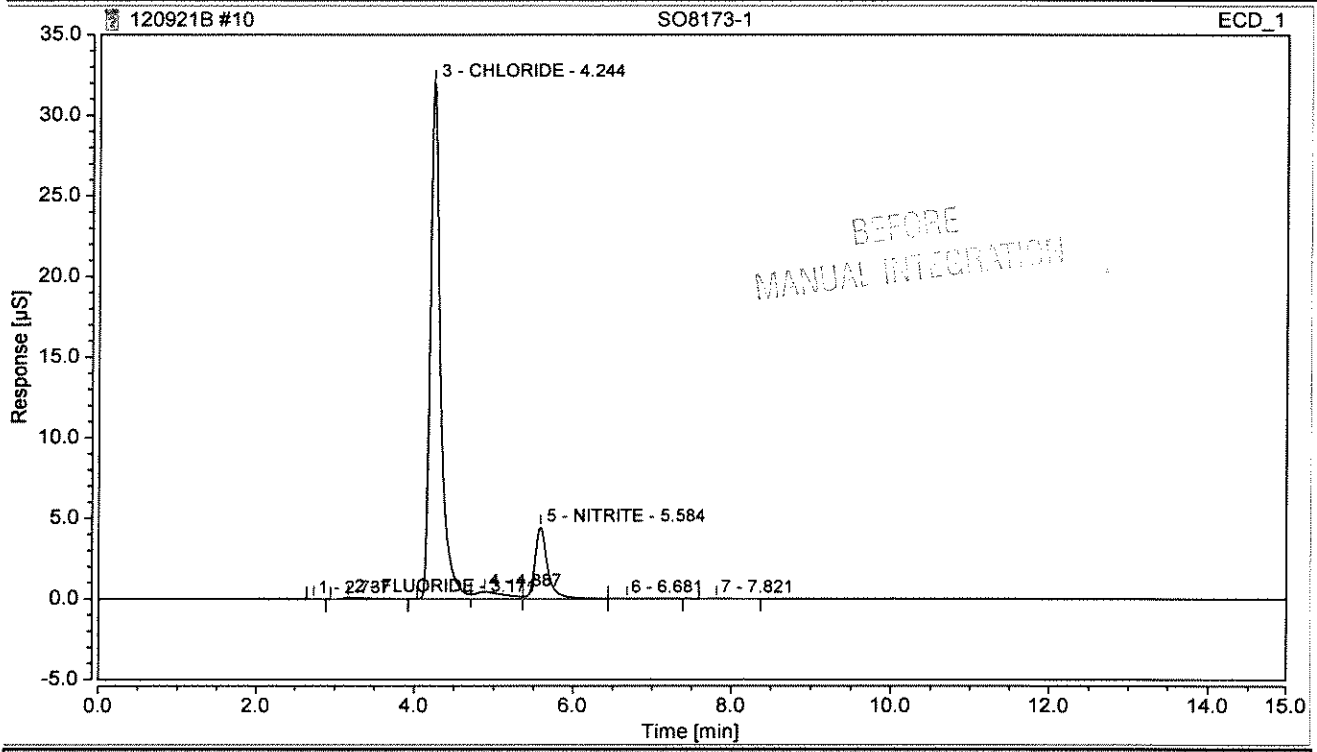
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.171	0.057	0.204	0.49	0.28	0.1165	n.a.
3	CHLORIDE	4.241	9.665	63.753	82.33	86.64	31.4620	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	SULFATE	5.581	1.683	8.863	14.34	12.05	7.3051	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.406**	**72.820**	**97.15**	**98.97**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-1**	*Run Time (min):*	**14.98**
Vial Number:	**10**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 16:05**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

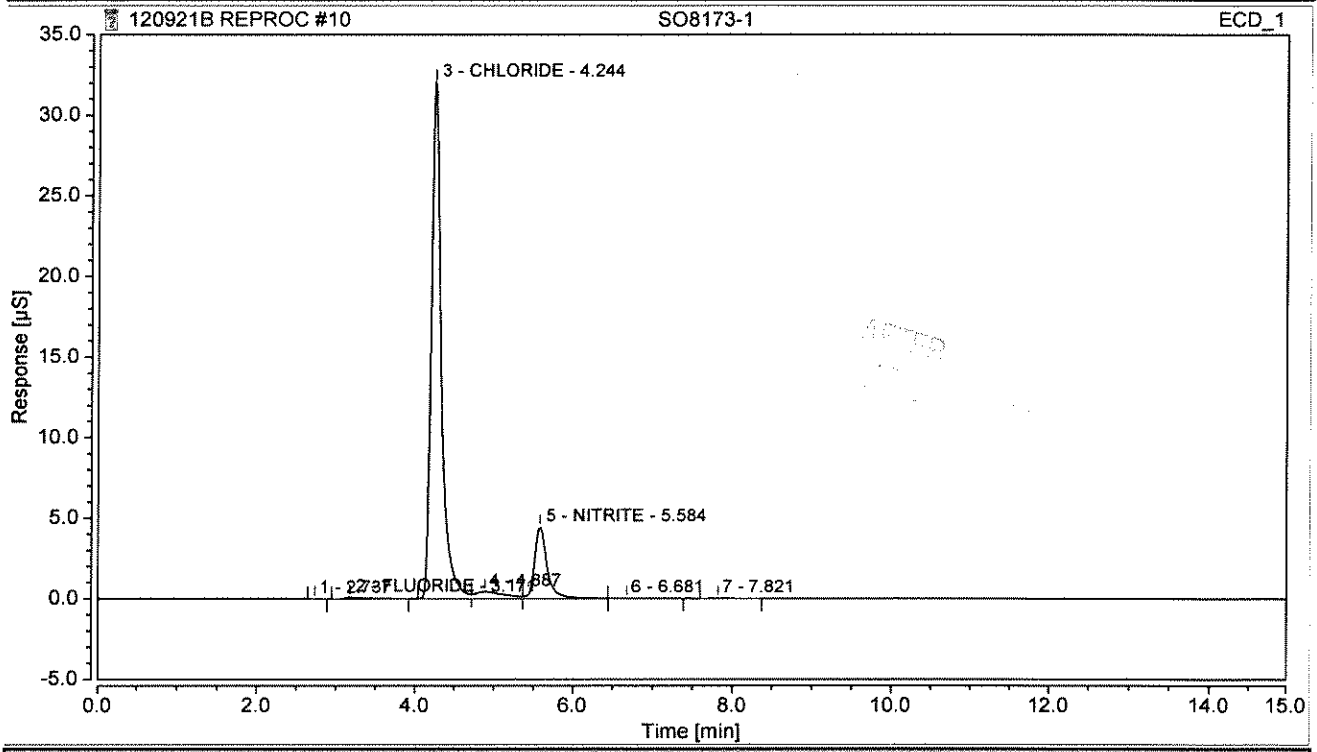
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.171	0.031	0.105	0.53	0.28	0.1283	n.a.
3	CHLORIDE	4.244	4.812	32.035	82.04	86.47	31.4208	n.a.
5	NITRITE	5.584	0.822	4.437	14.01	11.98	2.4564	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.665**	**36.577**	**96.58**	**98.73**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-1**	*Run Time (min):*	**14.98**
Vial Number:	**10**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 16:05**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

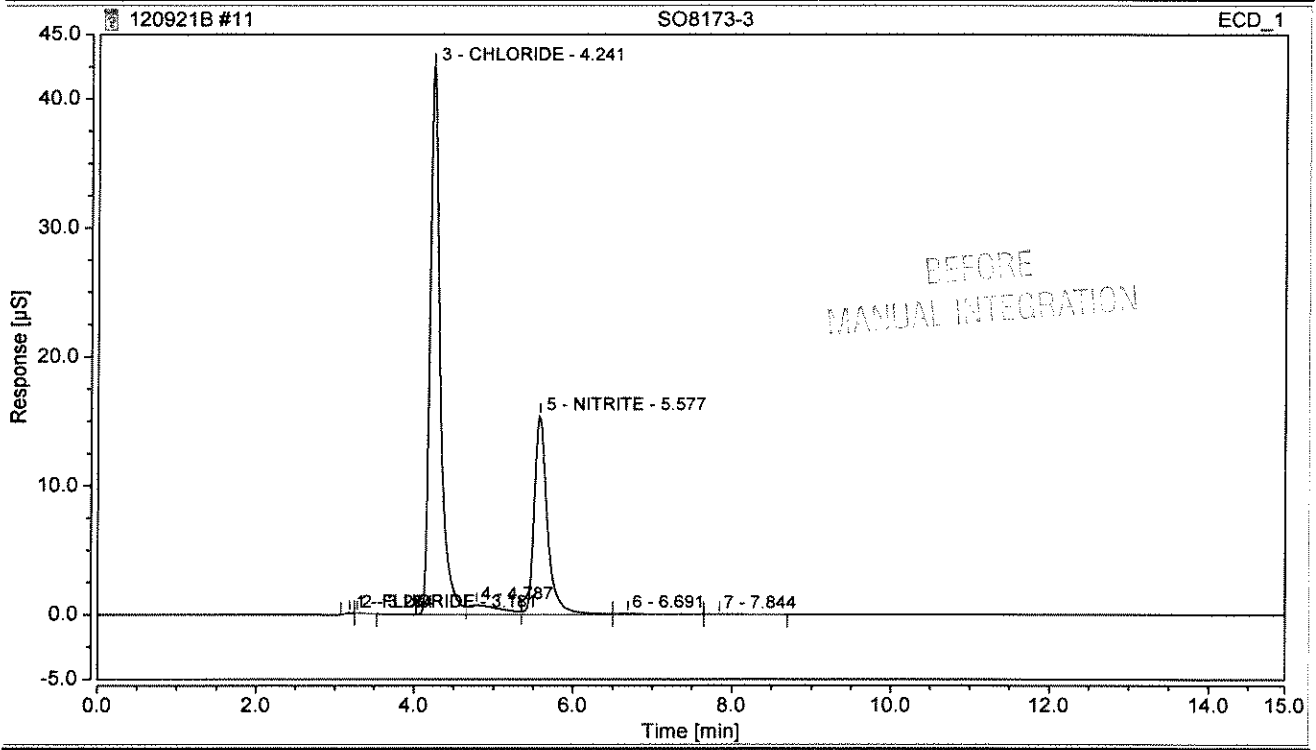
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.171	0.031	0.105	0.53	0.28	0.1283	n.a.
3	CHLORIDE	4.244	4.812	32.035	82.04	86.47	31.4208	n.a.
5	NITRITE	5.584	0.822	4.437	14.01	11.98	2.4564	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.665**	**36.577**	**96.58**	**98.73**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-3**	*Run Time (min):*	**14.97**
Vial Number:	**11**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 16:25**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

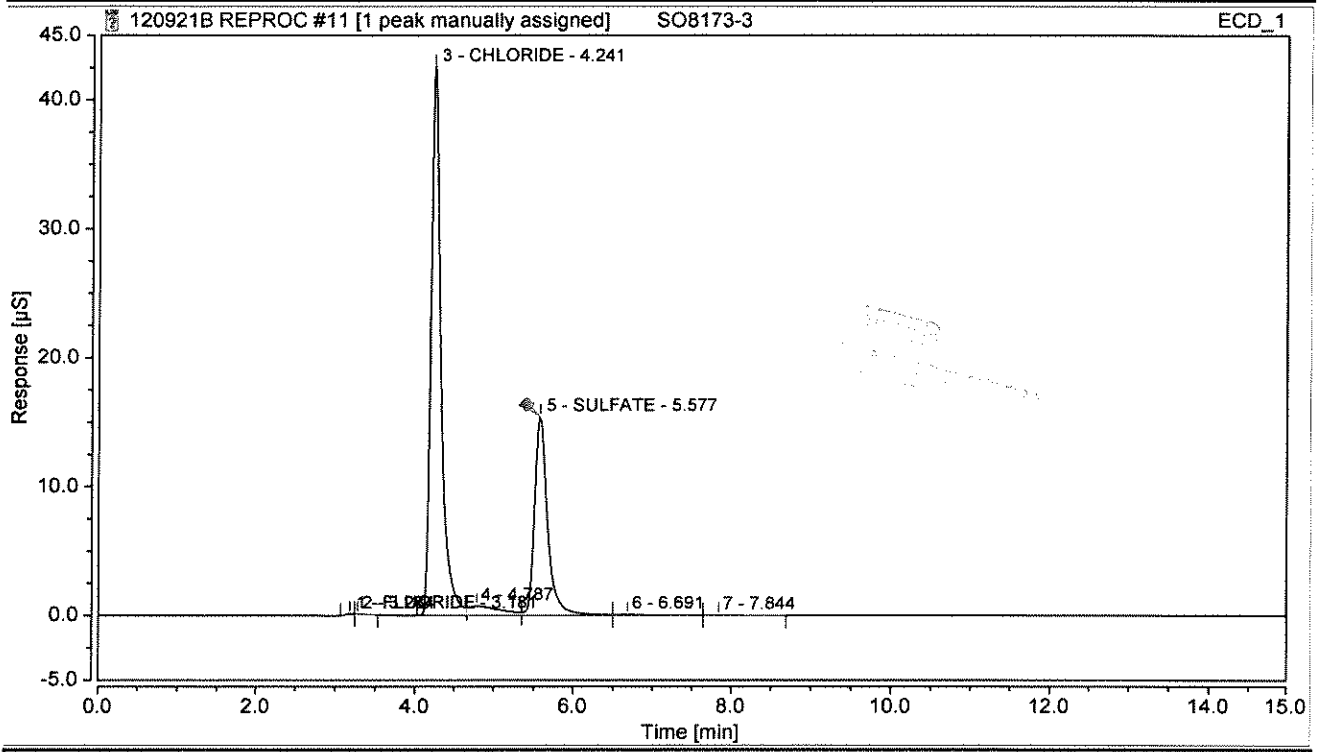
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.181	0.005	0.048	0.05	0.08	0.0099	n.a.
3	CHLORIDE	4.241	6.346	42.537	65.50	72.33	20.6899	n.a.
5	NITRITE	5.577	2.950	15.409	30.45	26.20	4.4089	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**9.301**	**57.994**	**95.99**	**98.61**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-3**	*Run Time (min):*	**14.97**
Vial Number:	**11**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 16:25**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

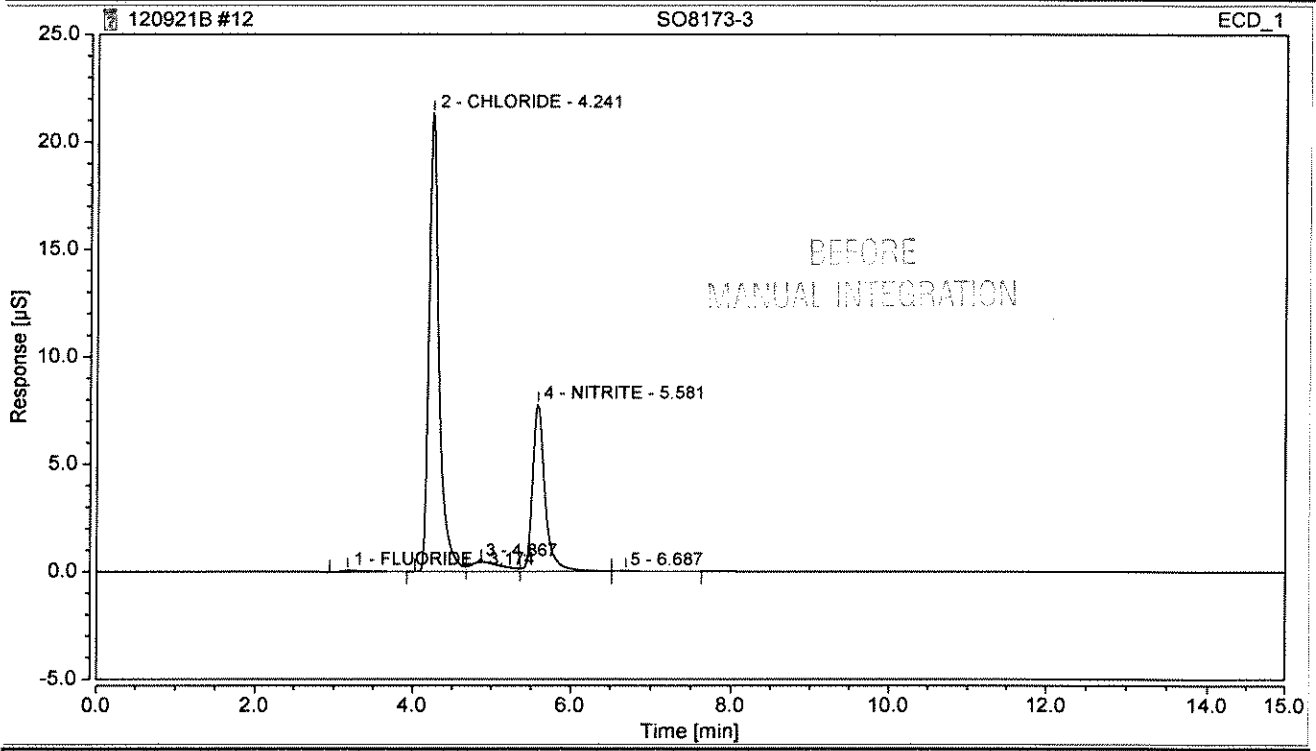
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.181	0.005	0.048	0.05	0.08	0.0099	n.a.
3	CHLORIDE	4.241	6.346	42.537	65.50	72.33	20.6899	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	SULFATE	5.577	2.950	15.409	30.45	26.20	12.8023	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**9.301**	**57.994**	**95.99**	**98.61**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-3**	*Run Time (min):*	**14.99**
Vial Number:	**12**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 16:46**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

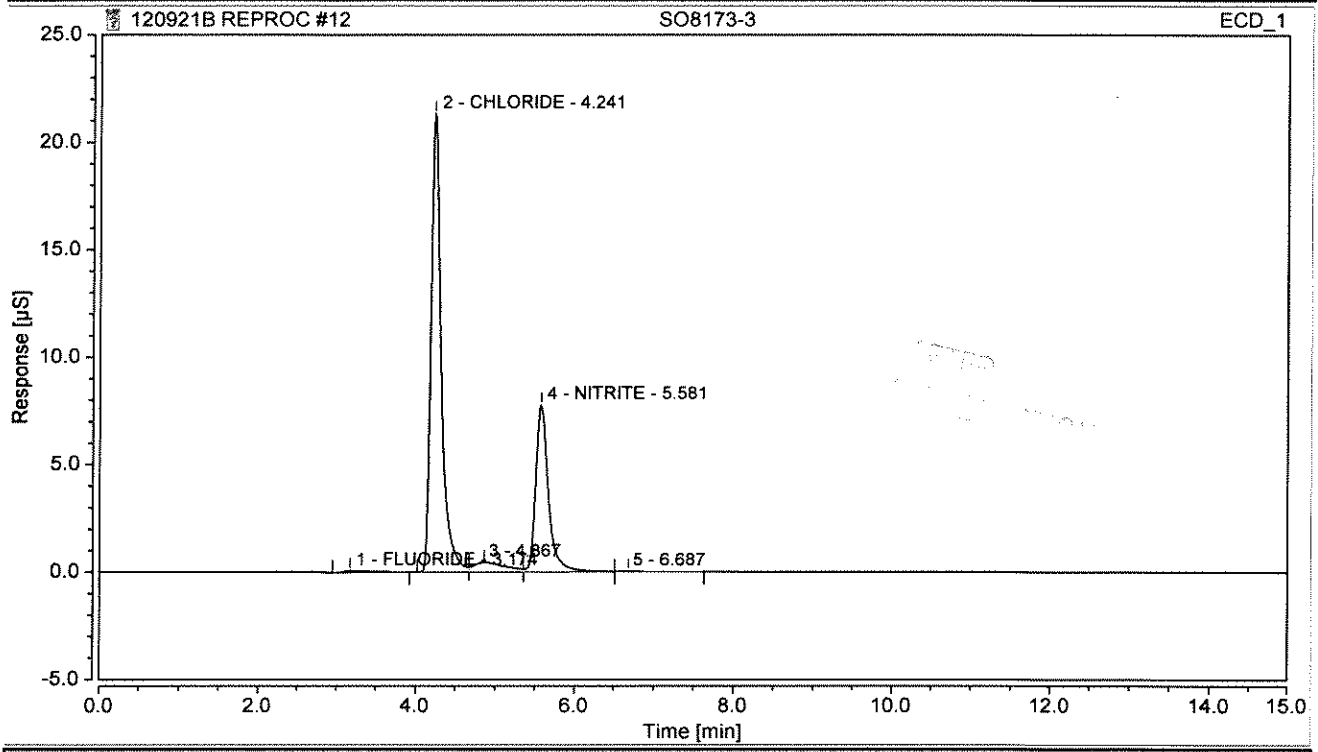
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.174	0.027	0.076	0.55	0.26	0.1086	n.a.
2	CHLORIDE	4.241	3.168	21.320	65.17	71.89	20.7519	n.a.
4	NITRITE	5.581	1.451	7.774	29.86	26.22	4.3386	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**4.646**	**29.170**	**95.57**	**98.37**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-3**	*Run Time (min):*	**14.99**
Vial Number:	**12**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 16:46**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

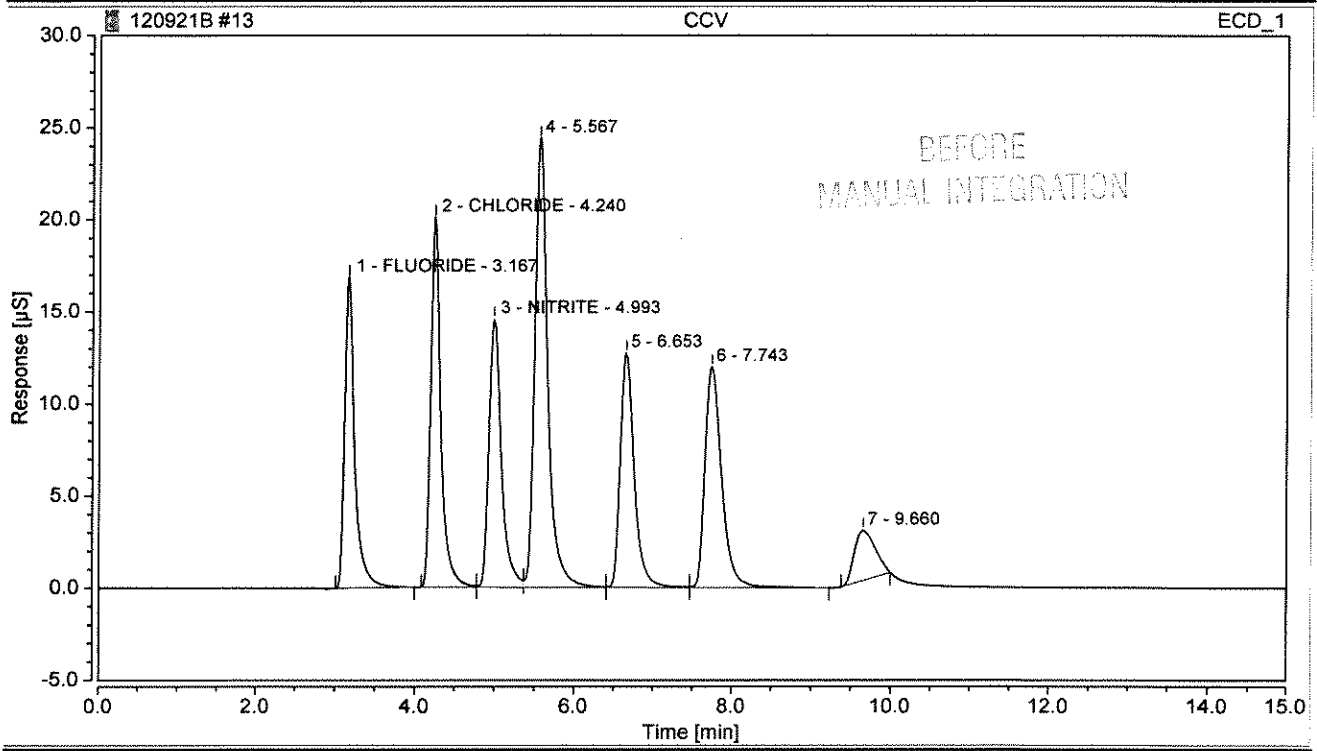
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.174	0.027	0.076	0.55	0.26	0.1086	n.a.
2	CHLORIDE	4.241	3.168	21.320	65.17	71.89	20.7519	n.a.
4	NITRITE	5.581	1.451	7.774	29.86	26.22	4.3386	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**4.646**	**29.170**	**95.57**	**98.37**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.98**
Vial Number:	**13**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 17:07**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

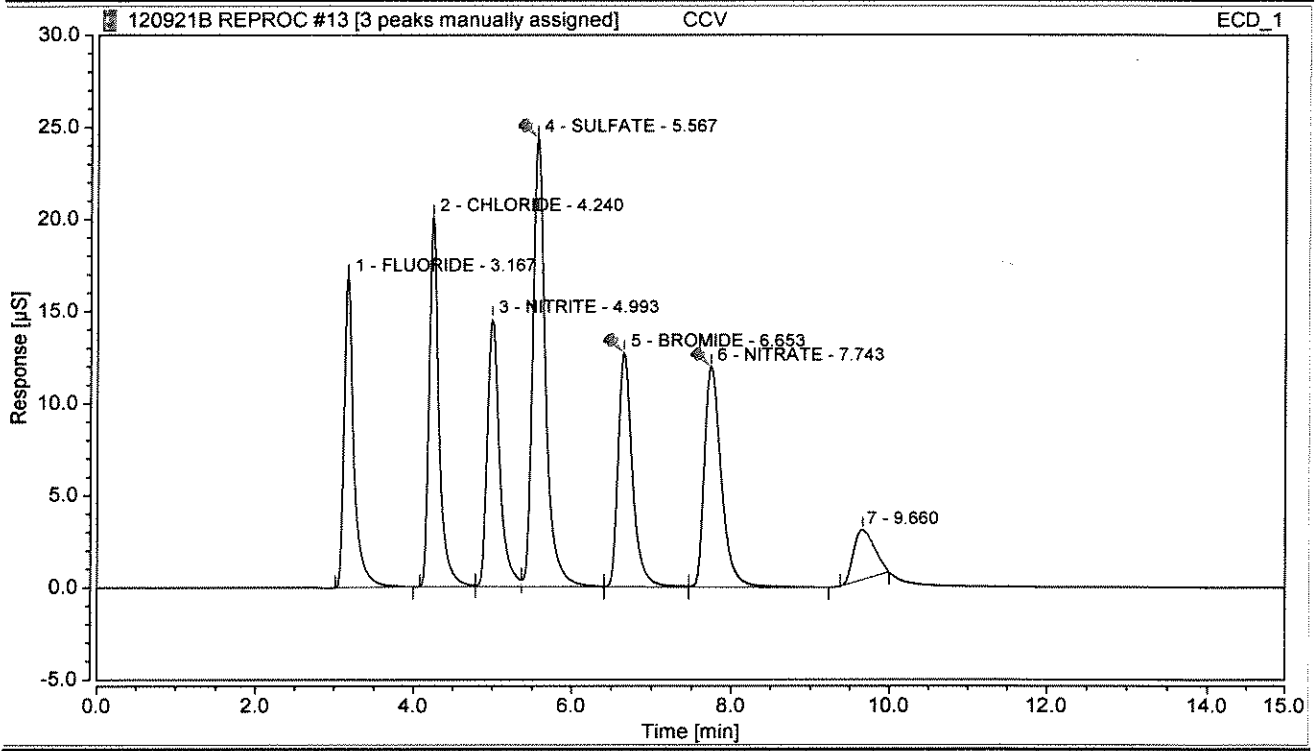
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	2.462	16.859	12.88	16.32	5.0334	0.6673
2	CHLORIDE	4.240	2.992	20.083	15.66	19.44	9.8055	-1.9448
3	NITRITE	4.993	2.632	14.564	13.78	14.10	3.9337	-1.6570
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.086**	**51.506**	**42.32**	**49.85**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.98**
Vial Number:	**13**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 17:07**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

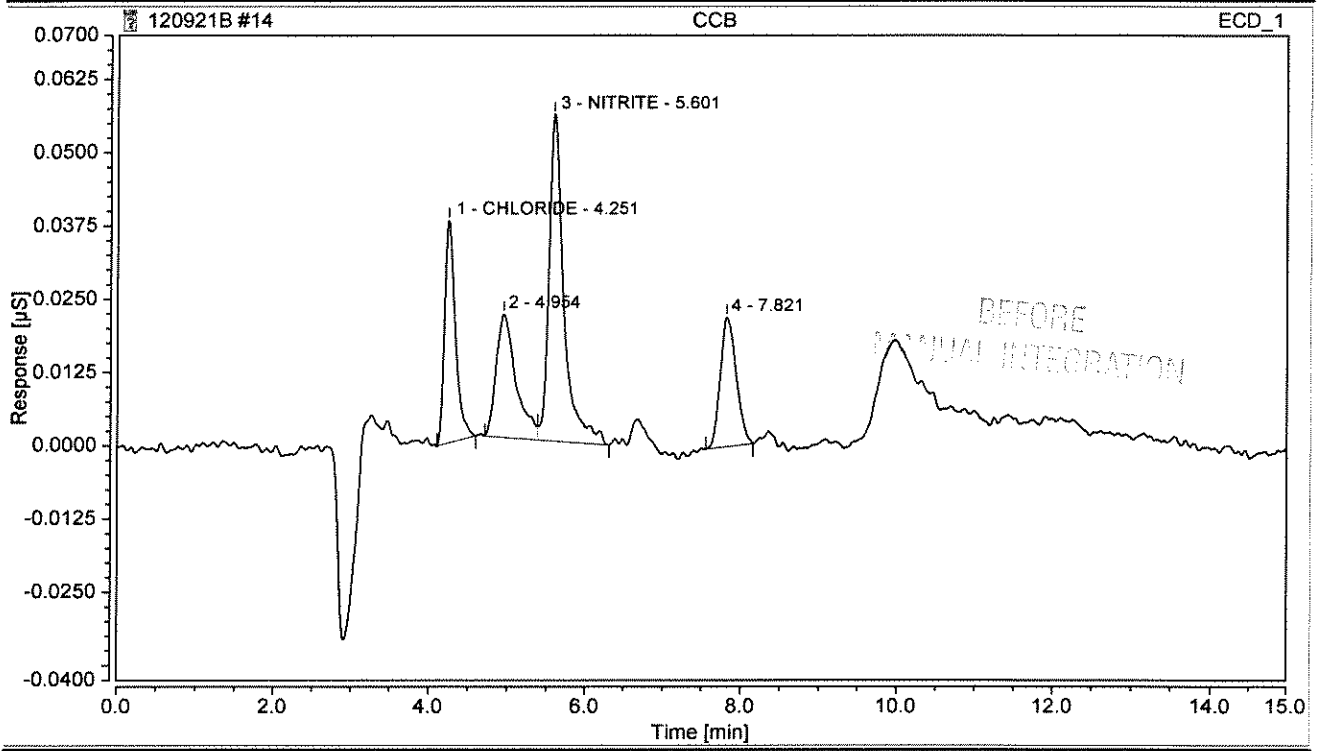
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	2.462	16.859	12.88	16.32	5.0334	0.6673
2	CHLORIDE	4.240	2.992	20.083	15.66	19.44	9.8055	-1.9448
3	NITRITE	4.993	2.632	14.564	13.78	14.10	3.9337	-1.6570
4	SULFATE	5.567	4.600	24.384	24.08	23.60	19.9636	-0.1819
5	BROMIDE	6.653	2.626	12.732	13.74	12.32	19.6307	-1.8467
6	NITRATE	7.743	2.963	11.976	15.51	11.59	3.8640	-3.3994
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**18.276**	**100.598**	**95.65**	**97.36**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.98**
Vial Number:	**14**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 17:28**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

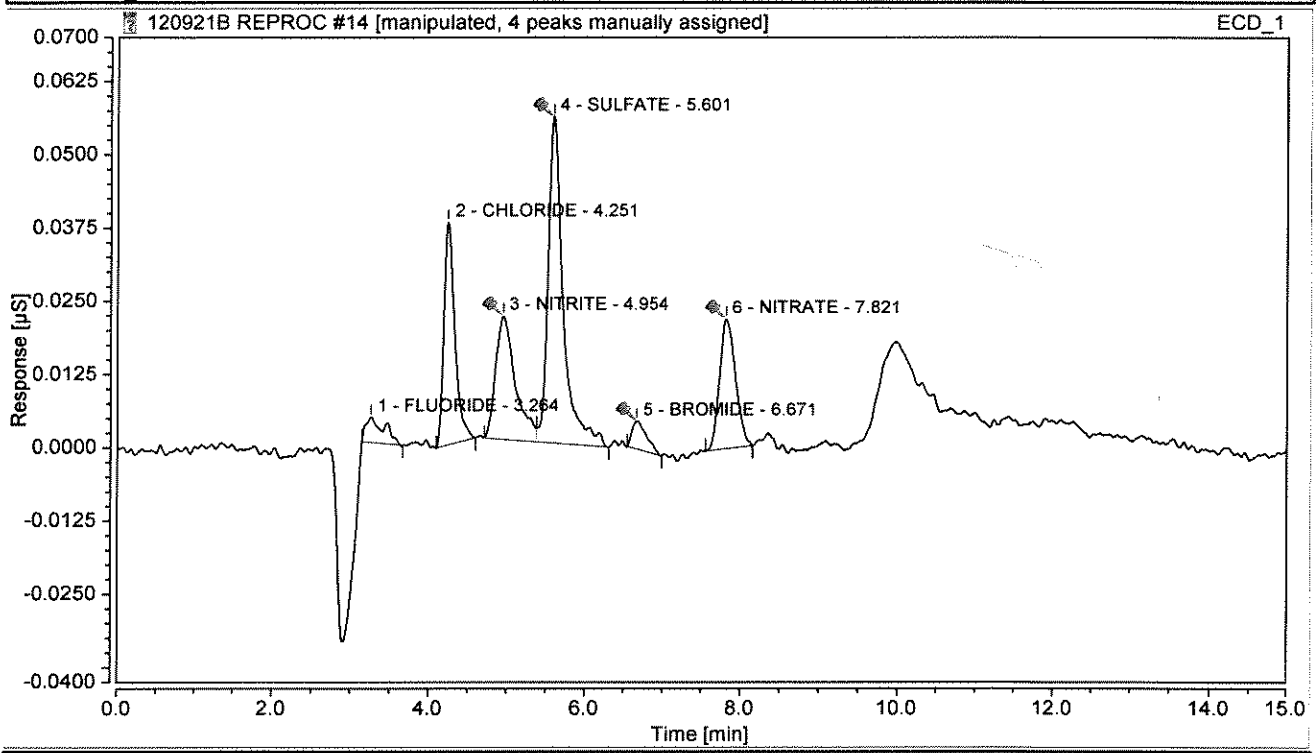
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	CHLORIDE	4.251	0.006	0.038	20.27	27.75	0.1150	n.a.
3	NITRITE	5.601	0.012	0.056	41.49	40.67	0.0186	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.018**	**0.094**	**61.77**	**68.42**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.98**
Vial Number:	**14**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 17:28**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

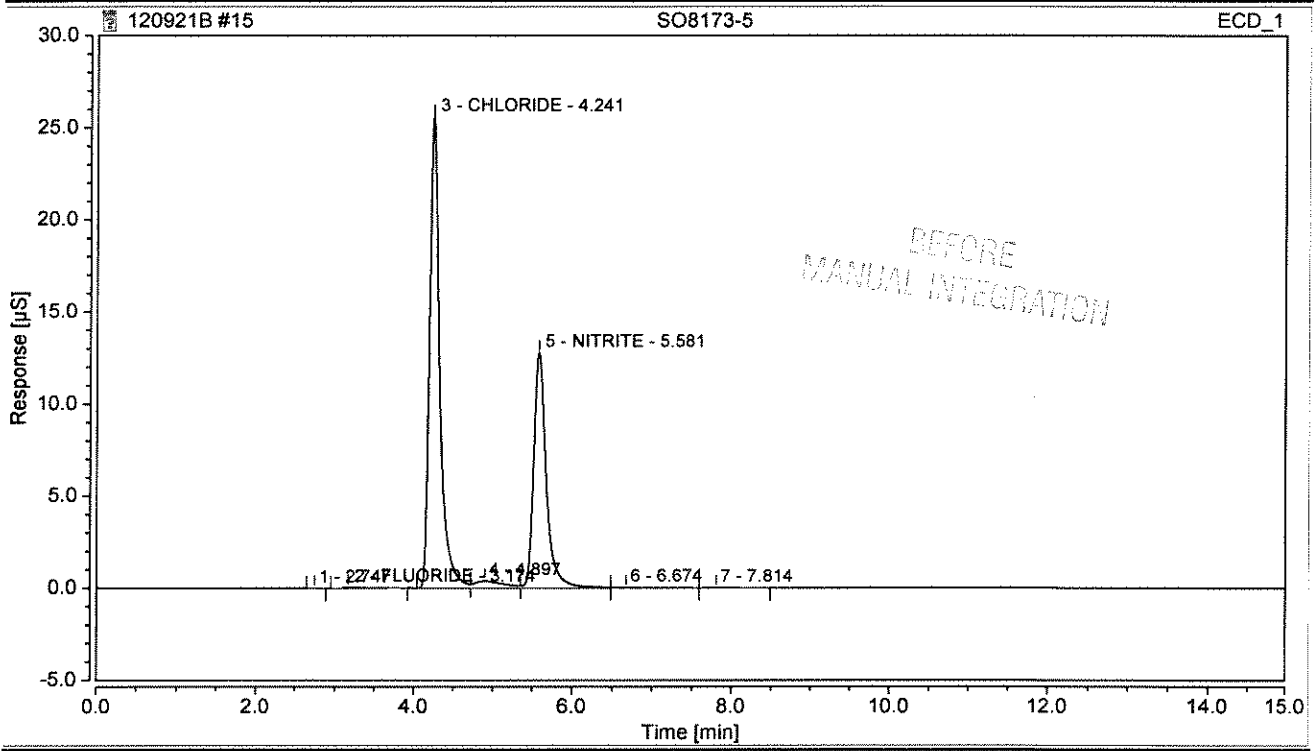
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.264	0.001	0.004	3.71	2.94	0.0024	n.a.
2	CHLORIDE	4.251	0.006	0.038	18.86	26.03	0.1150	n.a.
3	NITRITE	4.954	0.006	0.021	19.18	14.46	0.0092	n.a.
4	SULFATE	5.601	0.012	0.056	38.60	38.14	0.0539	n.a.
5	BROMIDE	6.671	0.001	0.005	3.26	3.27	0.0074	n.a.
6	NITRATE	7.821	0.005	0.022	16.39	15.16	0.0523	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.032**	**0.146**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-5**	*Run Time (min):*	**14.98**
Vial Number:	**15**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 17:49**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

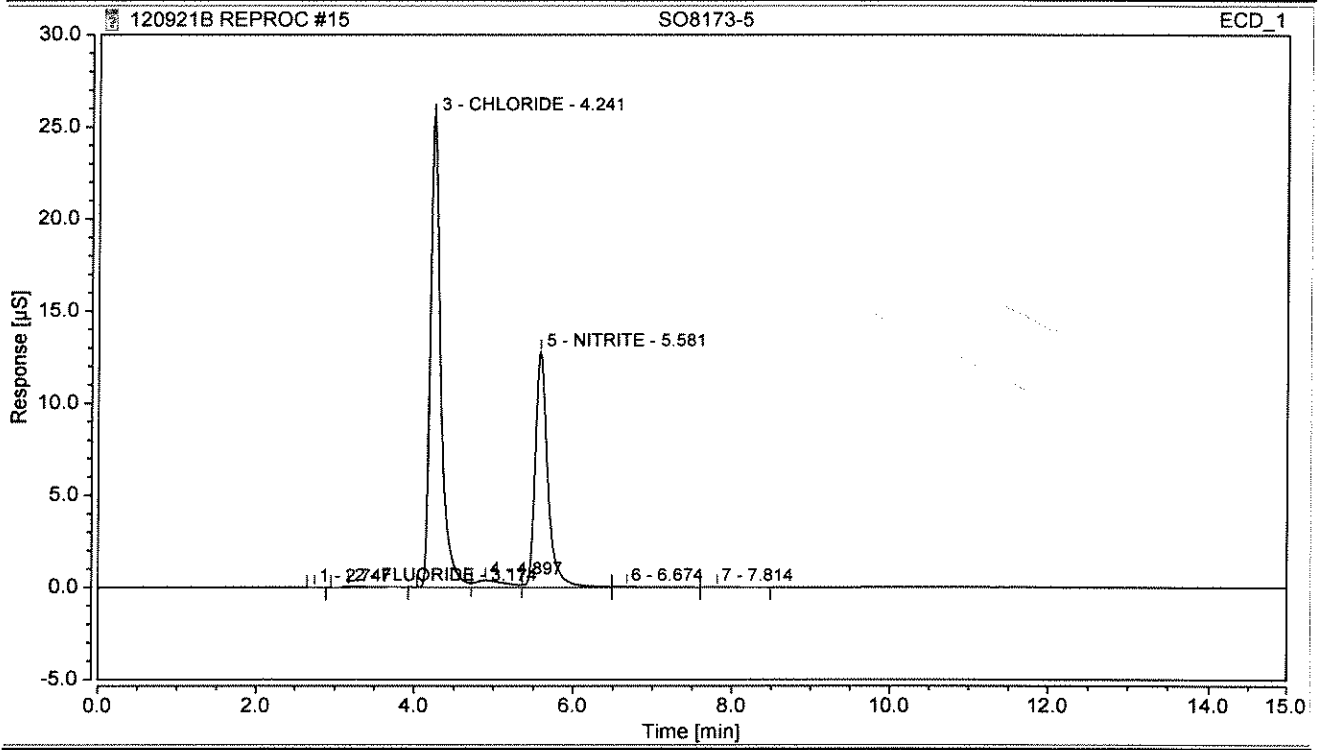
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.174	0.023	0.064	0.37	0.16	0.0960	n.a.
3	CHLORIDE	4.241	3.832	25.587	59.78	65.86	25.0595	n.a.
5	NITRITE	5.581	2.374	12.768	37.04	32.86	7.0962	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.229**	**38.418**	**97.19**	**98.89**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-5**	*Run Time (min):*	**14.98**
Vial Number:	**15**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 17:49**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

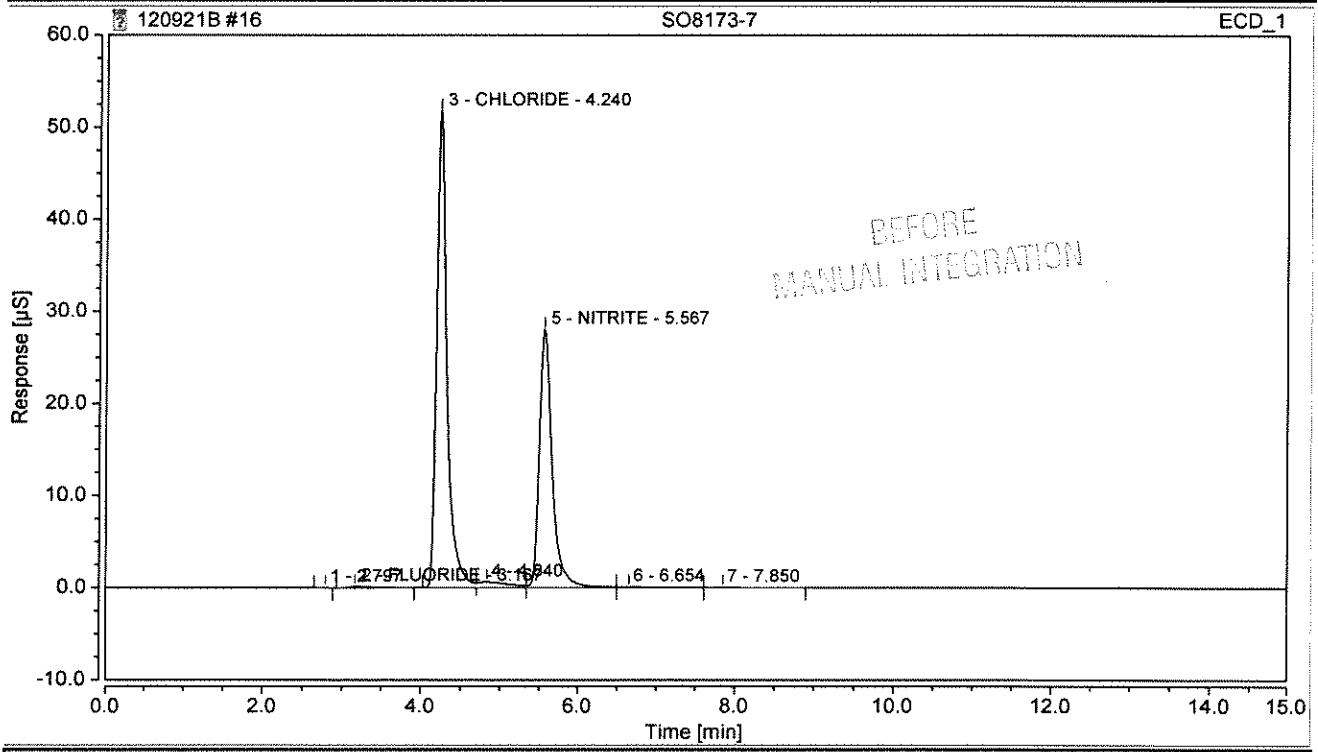
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.174	0.023	0.064	0.37	0.16	0.0960	n.a.
3	CHLORIDE	4.241	3.832	25.587	59.78	65.86	25.0595	n.a.
5	NITRITE	5.581	2.374	12.768	37.04	32.86	7.0962	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.229**	**38.418**	**97.19**	**98.89**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-7**	*Run Time (min):*	**14.98**
Vial Number:	**16**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 18:09**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

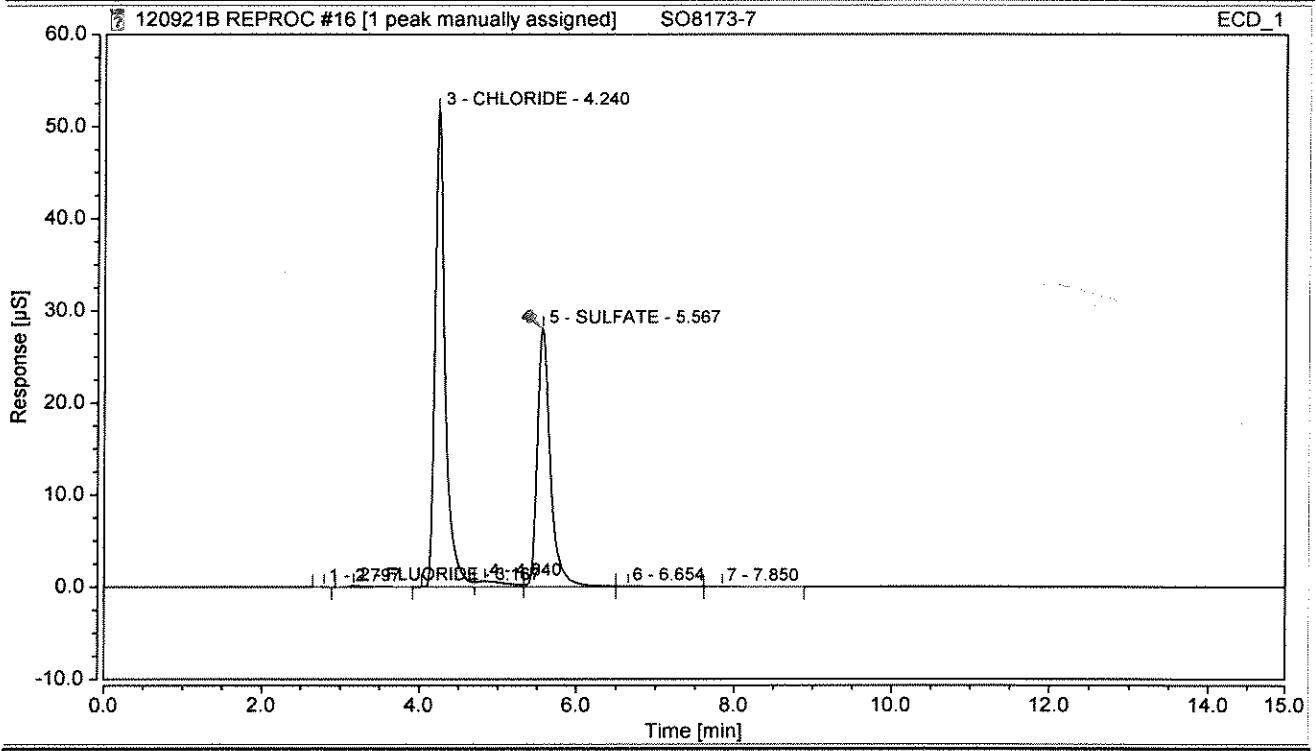
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.167	0.042	0.149	0.31	0.18	0.0853	n.a.
3	CHLORIDE	4.240	7.801	51.732	57.61	64.17	25.4119	n.a.
5	NITRITE	5.567	5.377	28.023	39.71	34.76	8.0367	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**13.220**	**79.904**	**97.63**	**99.12**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-7**	*Run Time (min):*	**14.98**
Vial Number:	**16**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 18:09**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

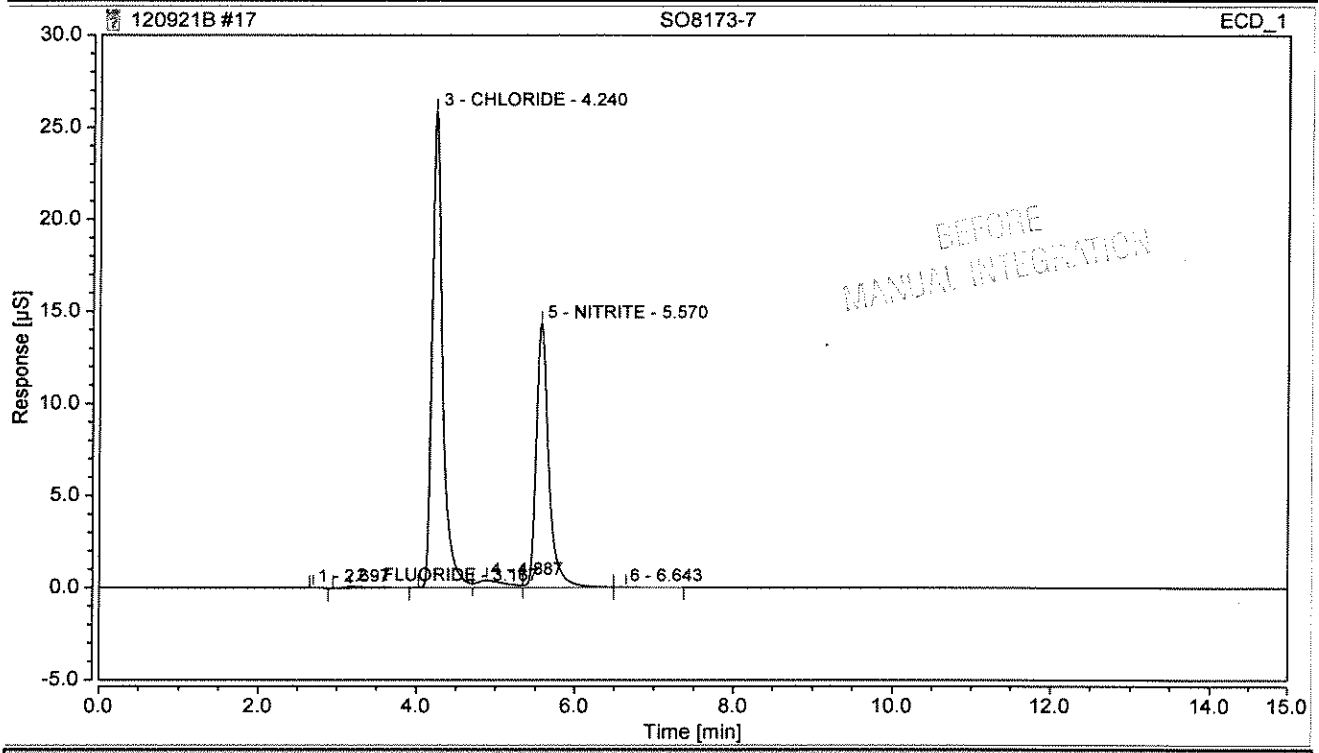
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.167	0.042	0.149	0.31	0.18	0.0853	n.a.
3	CHLORIDE	4.240	7.801	51.732	57.61	64.17	25.4119	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	SULFATE	5.567	5.377	28.023	39.71	34.76	23.3366	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**13.220**	**79.904**	**97.63**	**99.12**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-7**	*Run Time (min):*	**14.99**
Vial Number:	**17**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 18:30**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

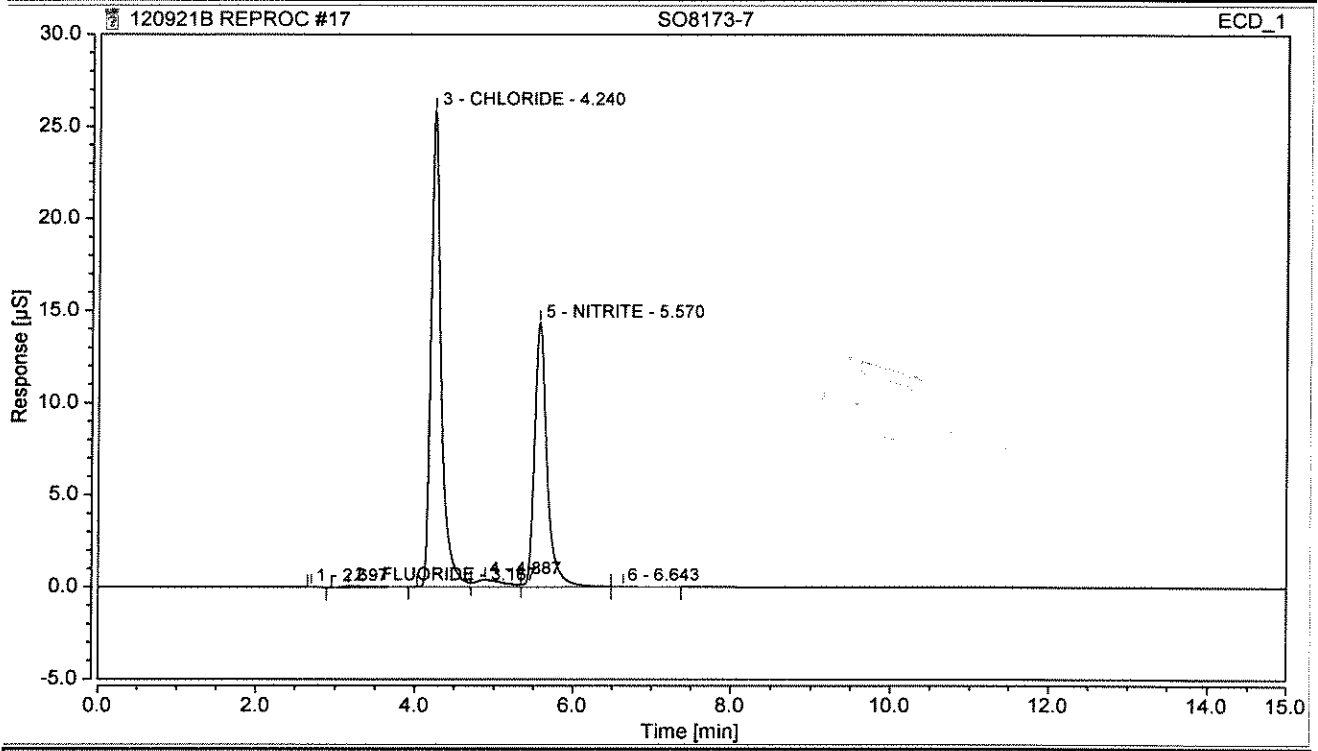
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.167	0.025	0.080	0.36	0.20	0.1011	n.a.
3	CHLORIDE	4.240	3.892	25.864	57.44	63.56	25.4506	n.a.
5	NITRITE	5.570	2.680	14.328	39.56	35.21	8.0118	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.597**	**40.272**	**97.37**	**98.96**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-7**	*Run Time (min):*	**14.99**
Vial Number:	**17**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 18:30**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

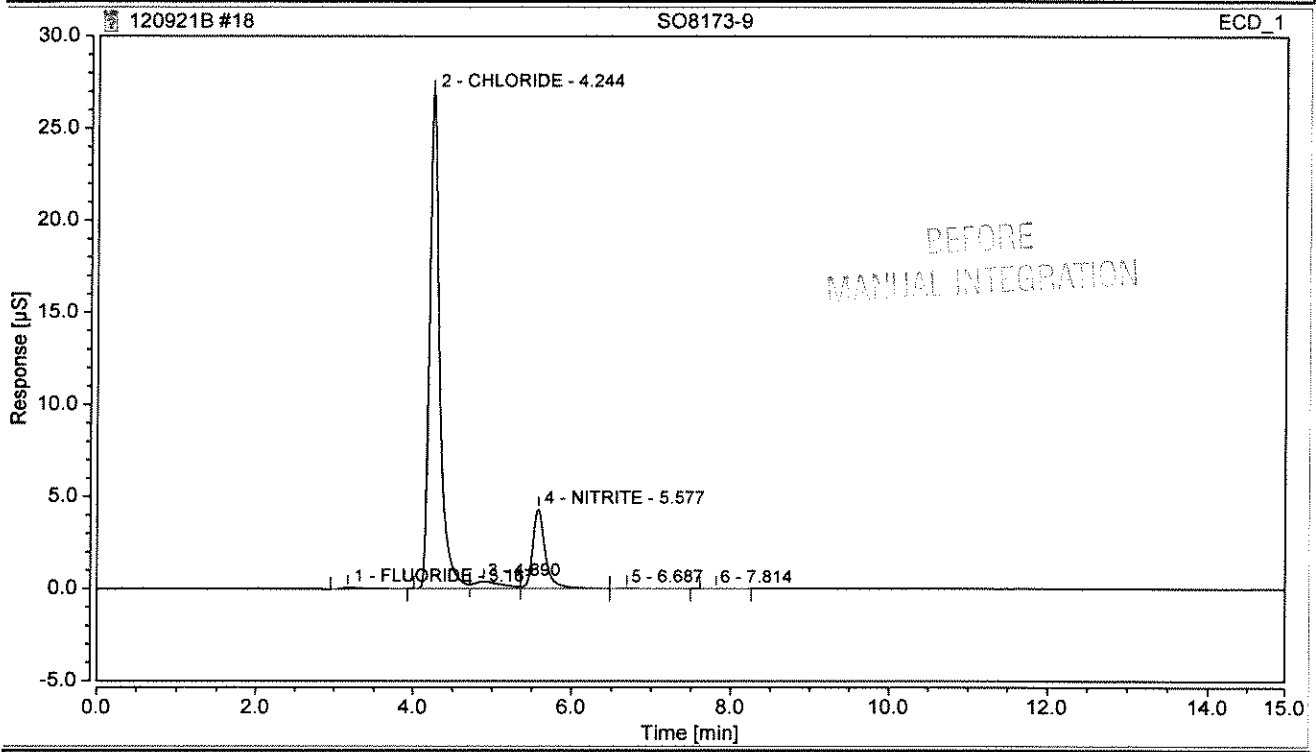
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.167	0.025	0.080	0.36	0.20	0.1011	n.a.
3	CHLORIDE	4.240	3.892	25.864	57.44	63.56	25.4506	n.a.
5	NITRITE	5.570	2.680	14.328	39.56	35.21	8.0118	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.597**	**40.272**	**97.37**	**98.96**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-9**	*Run Time (min):*	**14.98**
Vial Number:	**18**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 18:51**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

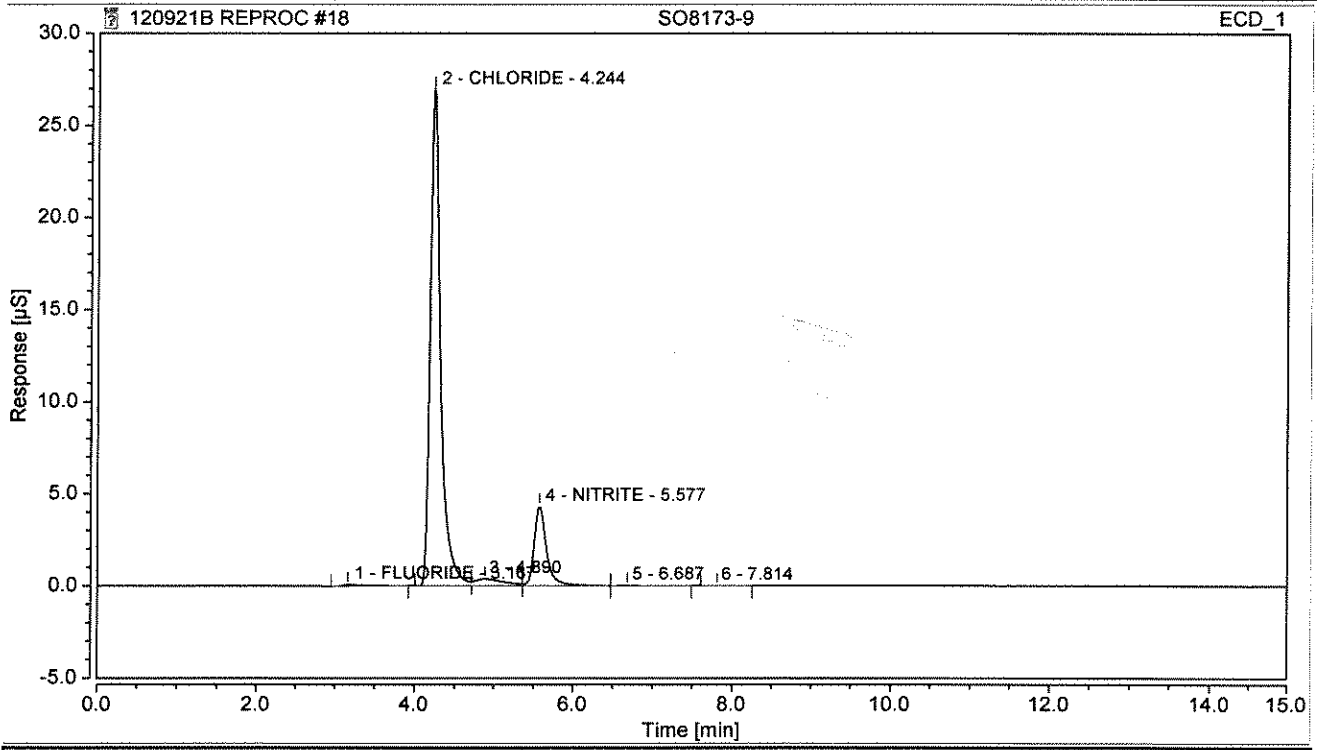
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	0.028	0.091	0.55	0.29	0.1134	n.a.
2	CHLORIDE	4.244	4.065	26.947	80.44	84.84	26.5761	n.a.
4	NITRITE	5.577	0.790	4.314	15.62	13.58	2.3600	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**4.883**	**31.352**	**96.62**	**98.70**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-9**	*Run Time (min):*	**14.98**
Vial Number:	**18**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 18:51**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

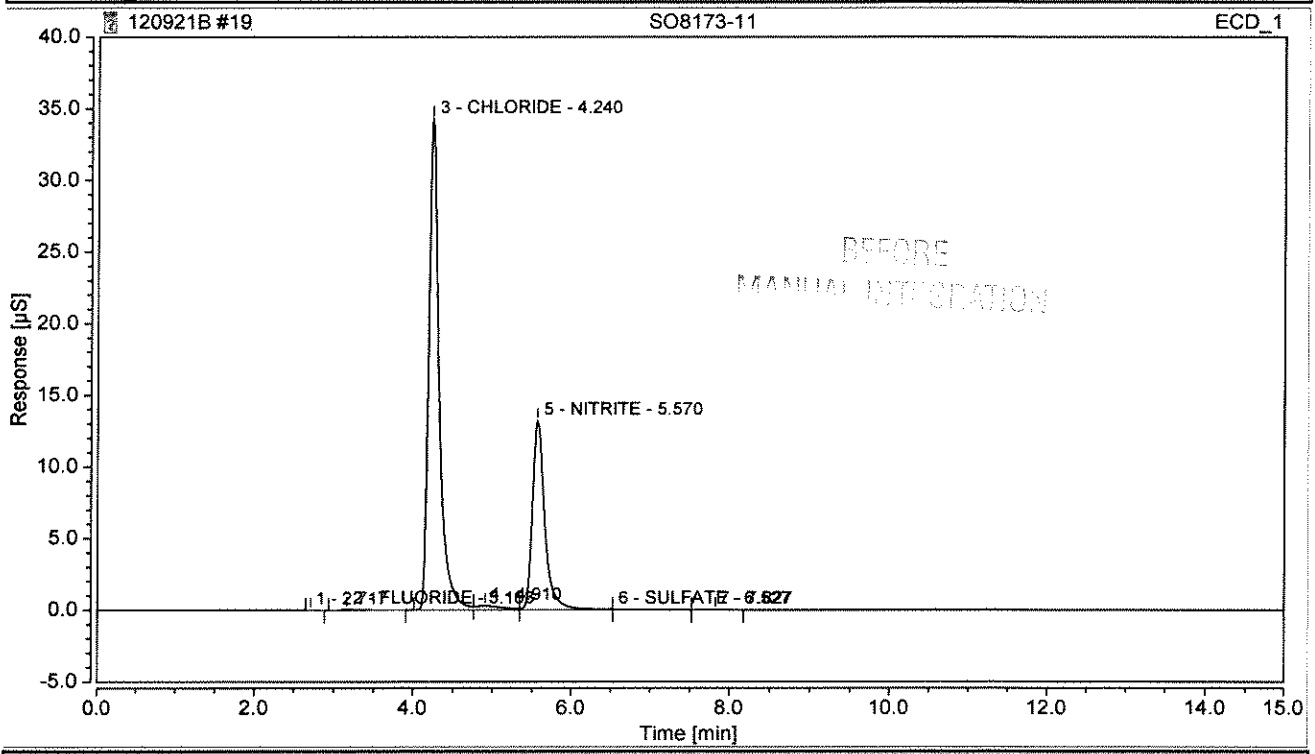
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	0.028	0.091	0.55	0.29	0.1134	n.a.
2	CHLORIDE	4.244	4.065	26.947	80.44	84.84	26.5761	n.a.
4	NITRITE	5.577	0.790	4.314	15.62	13.58	2.3600	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**4.883**	**31.352**	**96.62**	**98.70**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-11**	*Run Time (min):*	**14.98**
Vial Number:	**19**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 19:12**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

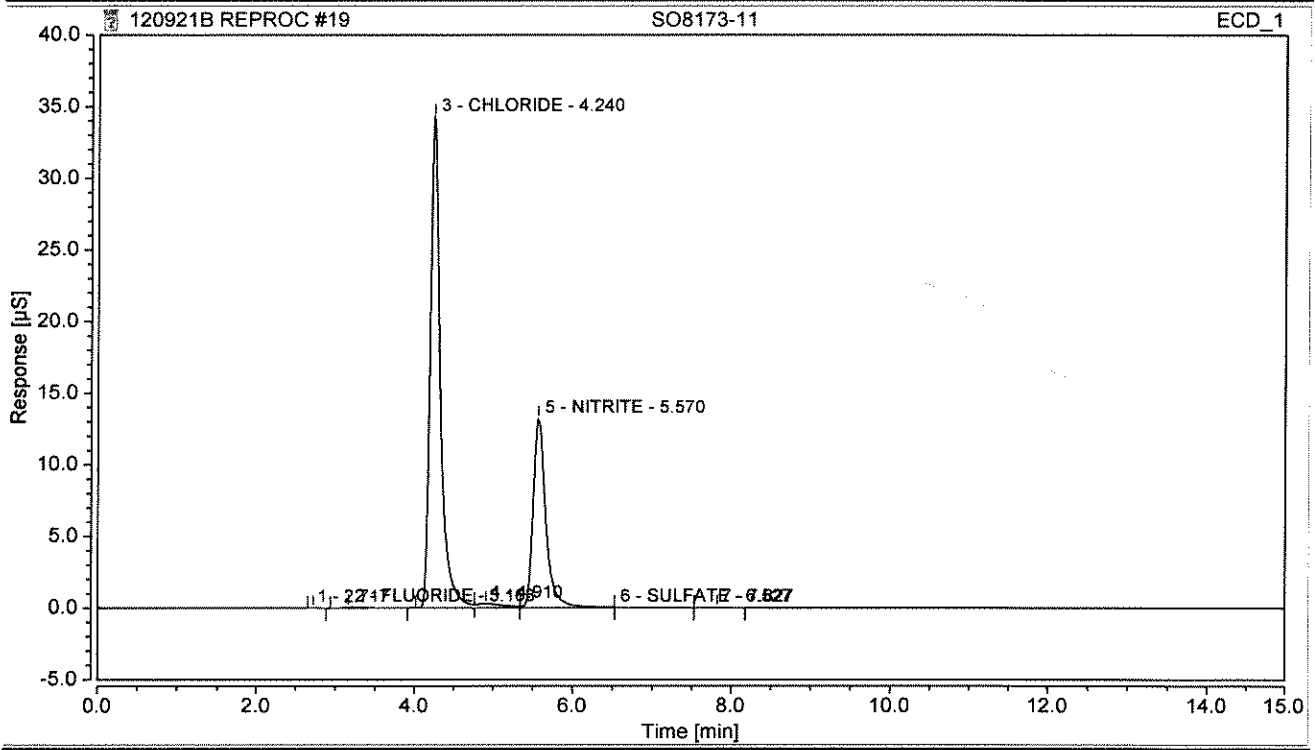
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.163	0.022	0.076	0.28	0.16	0.0909	n.a.
3	CHLORIDE	4.240	5.212	34.292	66.66	71.55	34.0195	n.a.
5	NITRITE	5.570	2.450	13.216	31.33	27.58	7.3229	n.a.
6	SULFATE	6.527	0.015	0.028	0.19	0.06	0.1264	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**7.699**	**47.611**	**98.47**	**99.34**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-11**	*Run Time (min):*	**14.98**
Vial Number:	**19**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 19:12**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

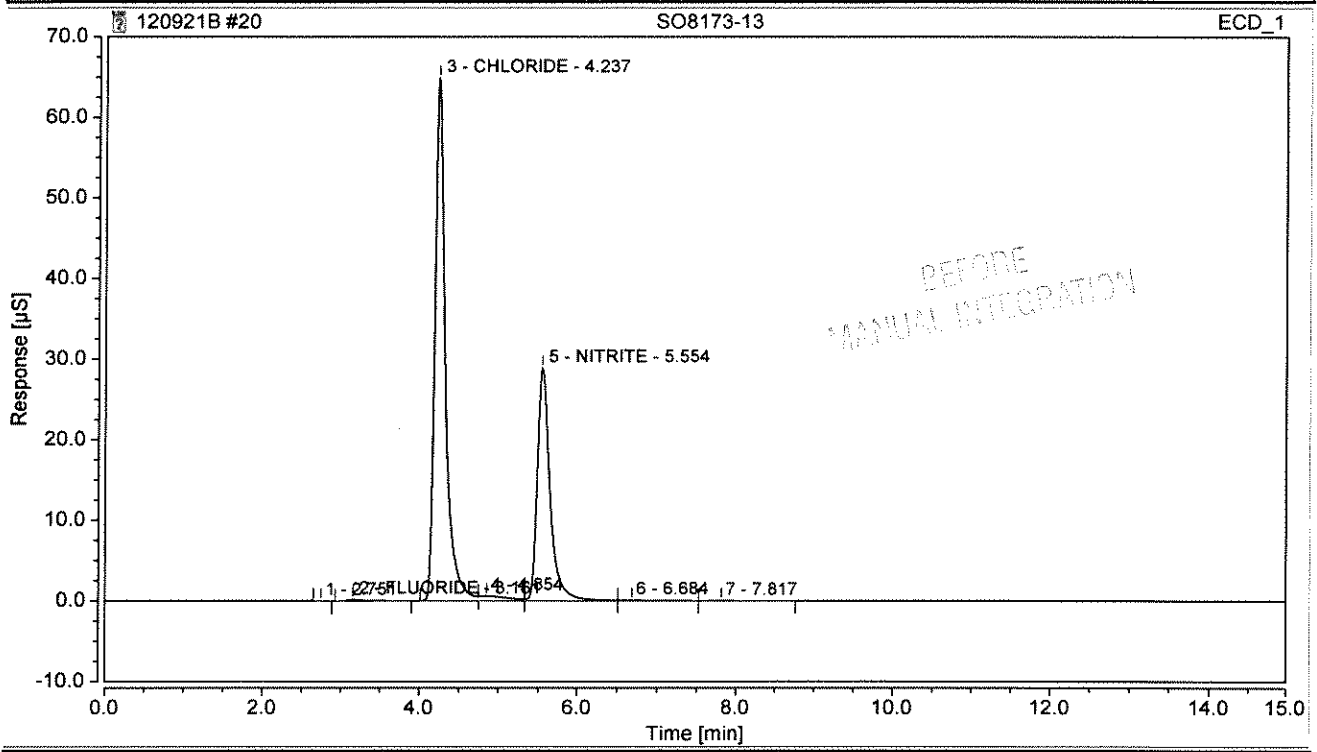
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.163	0.022	0.076	0.28	0.16	0.0909	n.a.
3	CHLORIDE	4.240	5.212	34.292	66.66	71.55	34.0195	n.a.
5	NITRITE	5.570	2.450	13.216	31.33	27.58	7.3229	n.a.
6	SULFATE	6.527	0.015	0.028	0.19	0.06	0.1264	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**7.699**	**47.611**	**98.47**	**99.34**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-13**	*Run Time (min):*	**14.98**
Vial Number:	**20**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 19:32**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

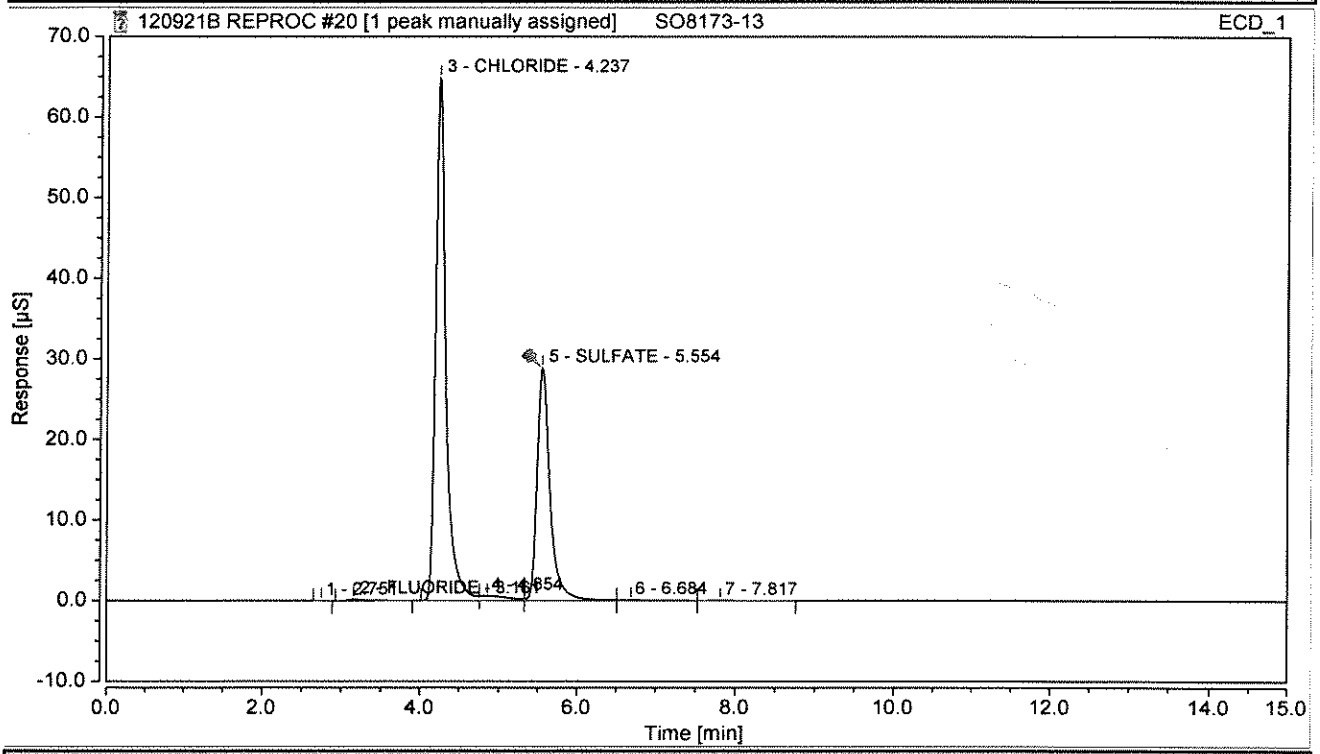
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.161	0.040	0.178	0.25	0.19	0.0824	n.a.
3	CHLORIDE	4.237	9.951	64.874	62.94	68.55	32.3902	n.a.
5	NITRITE	5.554	5.536	28.878	35.01	30.52	8.2736	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**15.528**	**93.931**	**98.20**	**99.26**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-13**	*Run Time (min):*	**14.98**
Vial Number:	**20**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 19:32**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

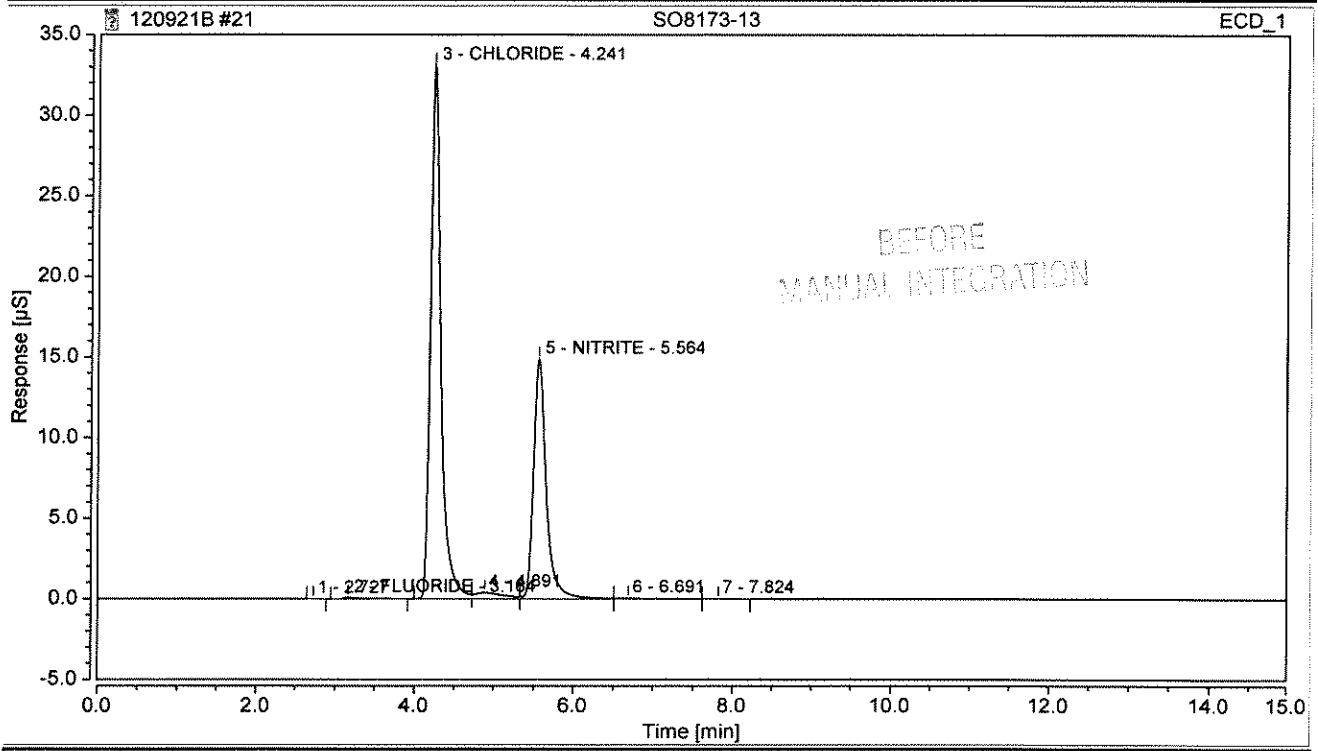
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.161	0.040	0.178	0.25	0.19	0.0824	n.a.
3	CHLORIDE	4.237	9.951	64.874	62.94	68.55	32.3902	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	SULFATE	5.554	5.536	28.878	35.01	30.52	24.0246	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**15.528**	**93.931**	**98.20**	**99.26**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-13**	*Run Time (min):*	**14.98**
Vial Number:	**21**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 19:53**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

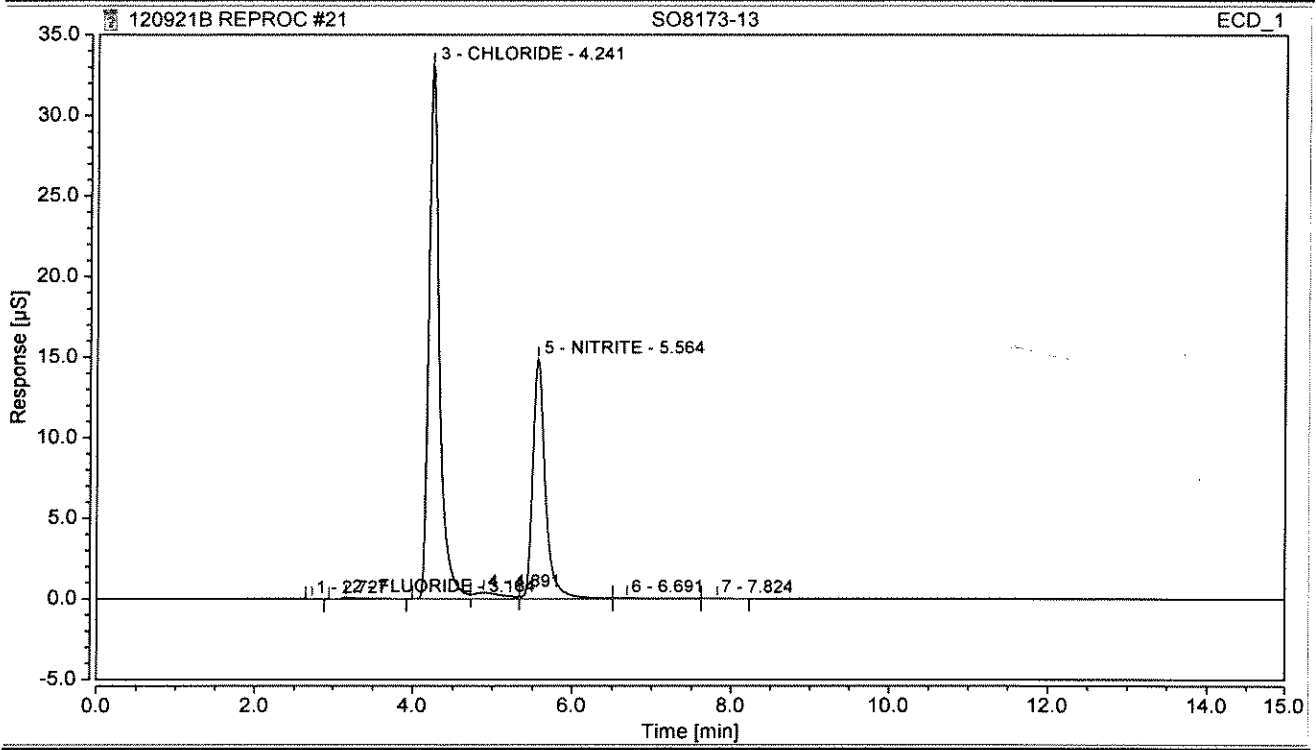
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.164	0.026	0.095	0.32	0.20	0.1044	n.a.
3	CHLORIDE	4.241	5.013	33.097	62.77	68.26	32.7283	n.a.
5	NITRITE	5.564	2.769	14.854	34.67	30.64	8.2757	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**7.807**	**48.047**	**97.76**	**99.09**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-13**	*Run Time (min):*	**14.98**
Vial Number:	**21**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 19:53**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

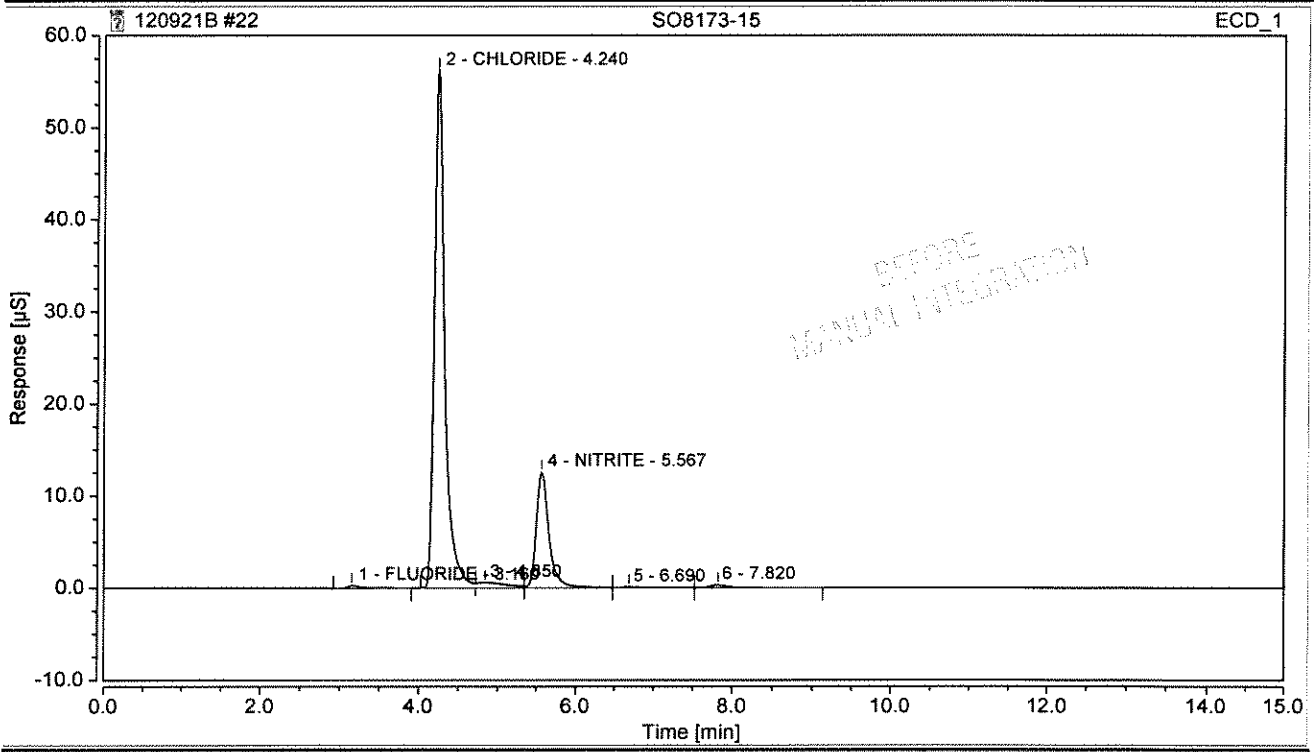
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
2	FLUORIDE	3.164	0.026	0.095	0.32	0.20	0.1044	n.a.
3	CHLORIDE	4.241	5.013	33.097	62.77	68.26	32.7283	n.a.
5	NITRITE	5.564	2.769	14.854	34.67	30.64	8.2757	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**7.807**	**48.047**	**97.76**	**99.09**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-15**	*Run Time (min):*	**14.98**
Vial Number:	**22**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 20:14**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

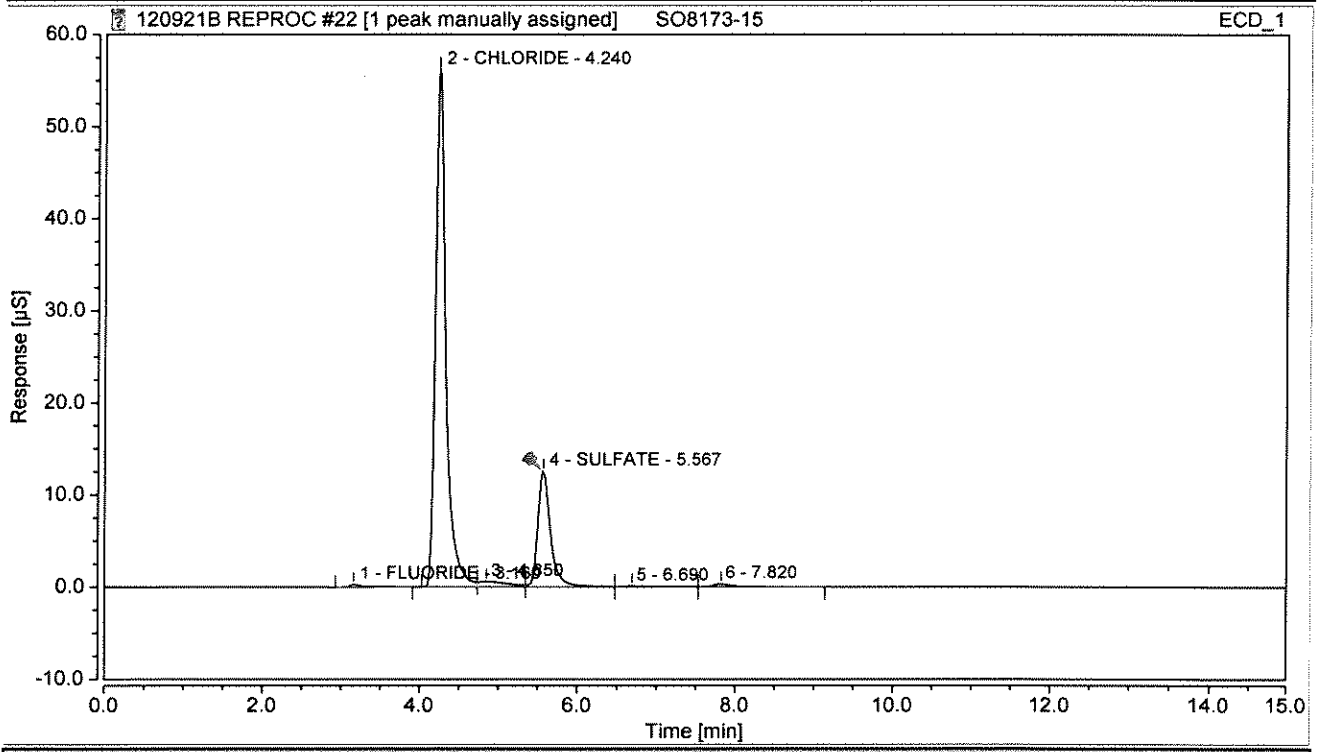
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.160	0.055	0.279	0.48	0.40	0.1127	n.a.
2	CHLORIDE	4.240	8.621	56.184	75.56	80.26	28.0716	n.a.
4	NITRITE	5.567	2.372	12.571	20.79	17.96	3.5451	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.048**	**69.034**	**96.84**	**98.61**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-15**	*Run Time (min):*	**14.98**
Vial Number:	**22**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 20:14**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

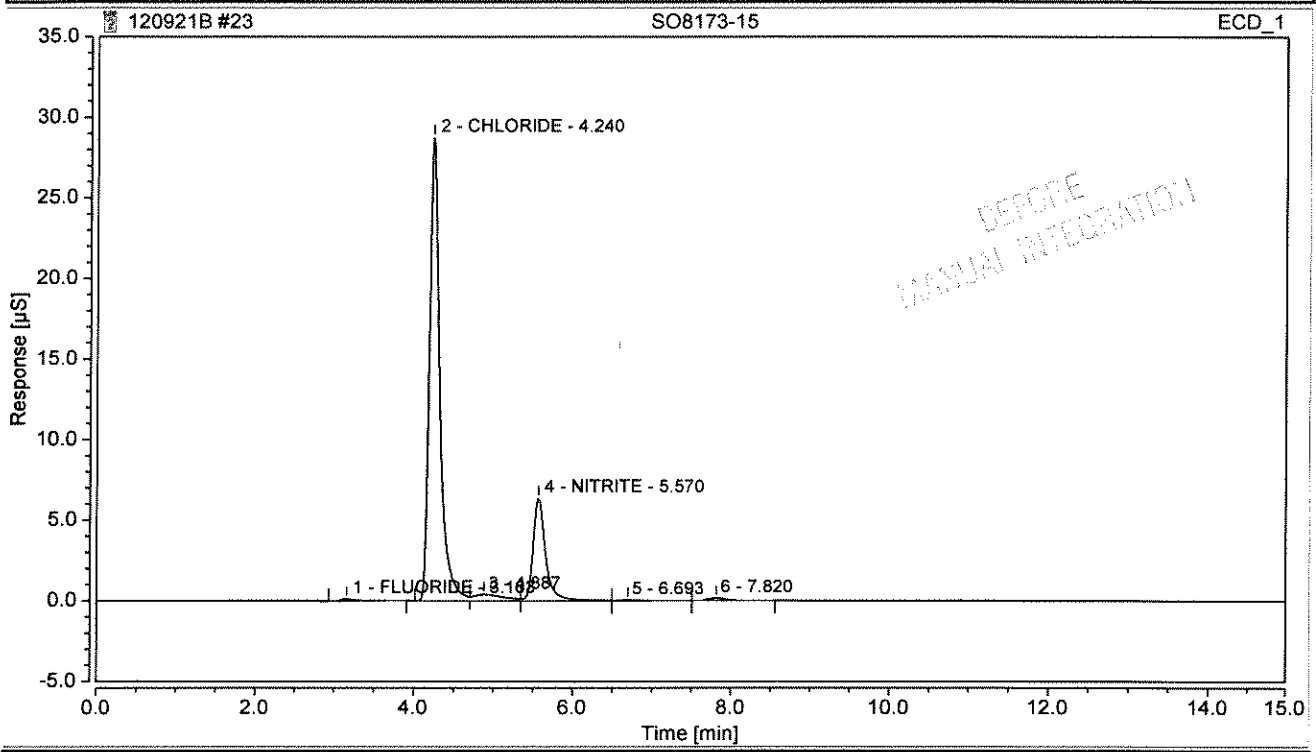
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.160	0.055	0.279	0.48	0.40	0.1127	n.a.
2	CHLORIDE	4.240	8.621	56.184	75.56	80.26	28.0716	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	SULFATE	5.567	2.372	12.571	20.79	17.96	10.2942	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.048**	**69.034**	**96.84**	**98.61**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-15**	*Run Time (min):*	**14.98**
Vial Number:	**23**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 20:35**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

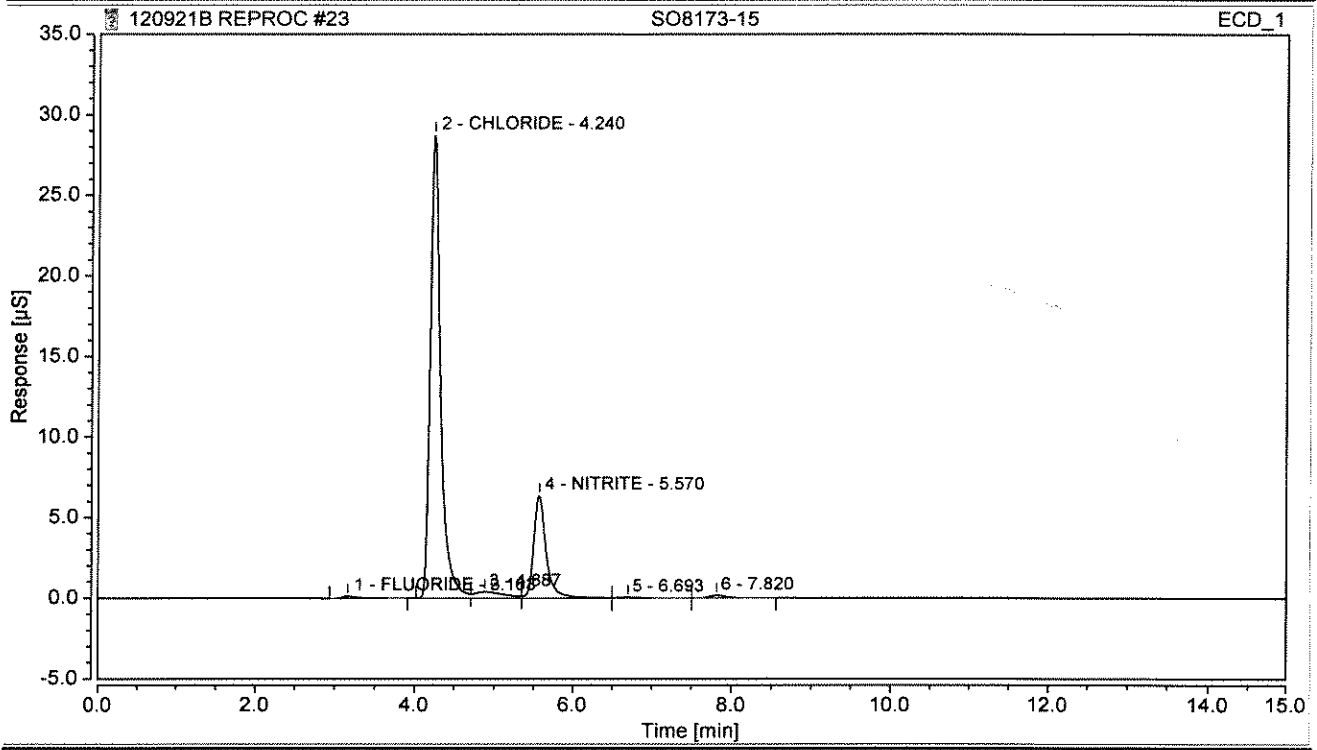
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.163	0.033	0.141	0.57	0.39	0.1350	n.a.
2	CHLORIDE	4.240	4.353	28.752	75.26	80.18	28.4460	n.a.
4	NITRITE	5.570	1.177	6.374	20.35	17.78	3.5181	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.563**	**35.267**	**96.18**	**98.35**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-15**	*Run Time (min):*	**14.98**
Vial Number:	**23**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 20:35**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

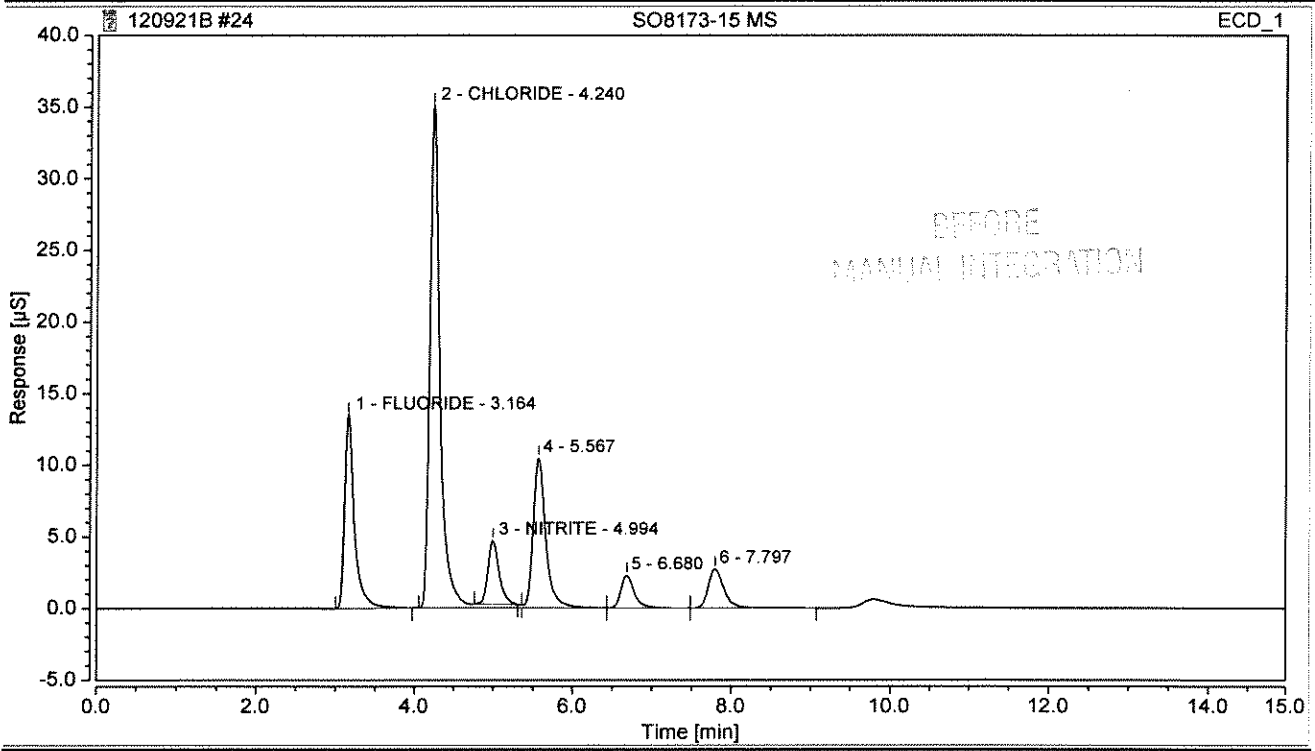
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.163	0.033	0.141	0.57	0.39	0.1350	n.a.
2	CHLORIDE	4.240	4.353	28.752	75.26	80.18	28.4460	n.a.
4	NITRITE	5.570	1.177	6.374	20.35	17.78	3.5181	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.563**	**35.267**	**96.18**	**98.35**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-15 MS**	*Run Time (min):*	**14.98**
Vial Number:	**24**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 20:56**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

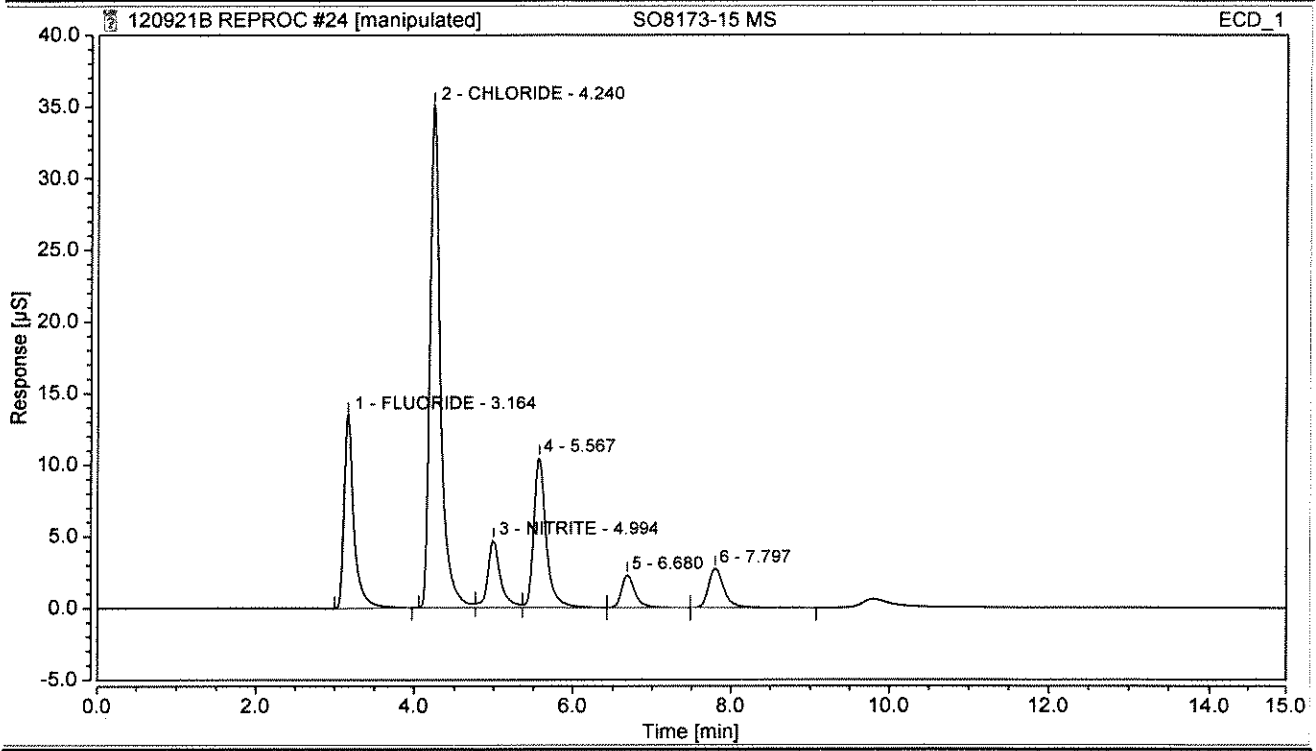
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	1.947	13.512	17.44	19.72	7.9632	n.a.
2	CHLORIDE	4.240	5.476	35.079	49.03	51.18	35.7337	n.a.
3	NITRITE	4.994	0.731	4.454	6.54	6.50	2.1837	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.154**	**53.046**	**73.01**	**77.40**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8173-15 MS**	*Run Time (min):*	**14.98**
Vial Number:	**24**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**09/Dec/21 20:56**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

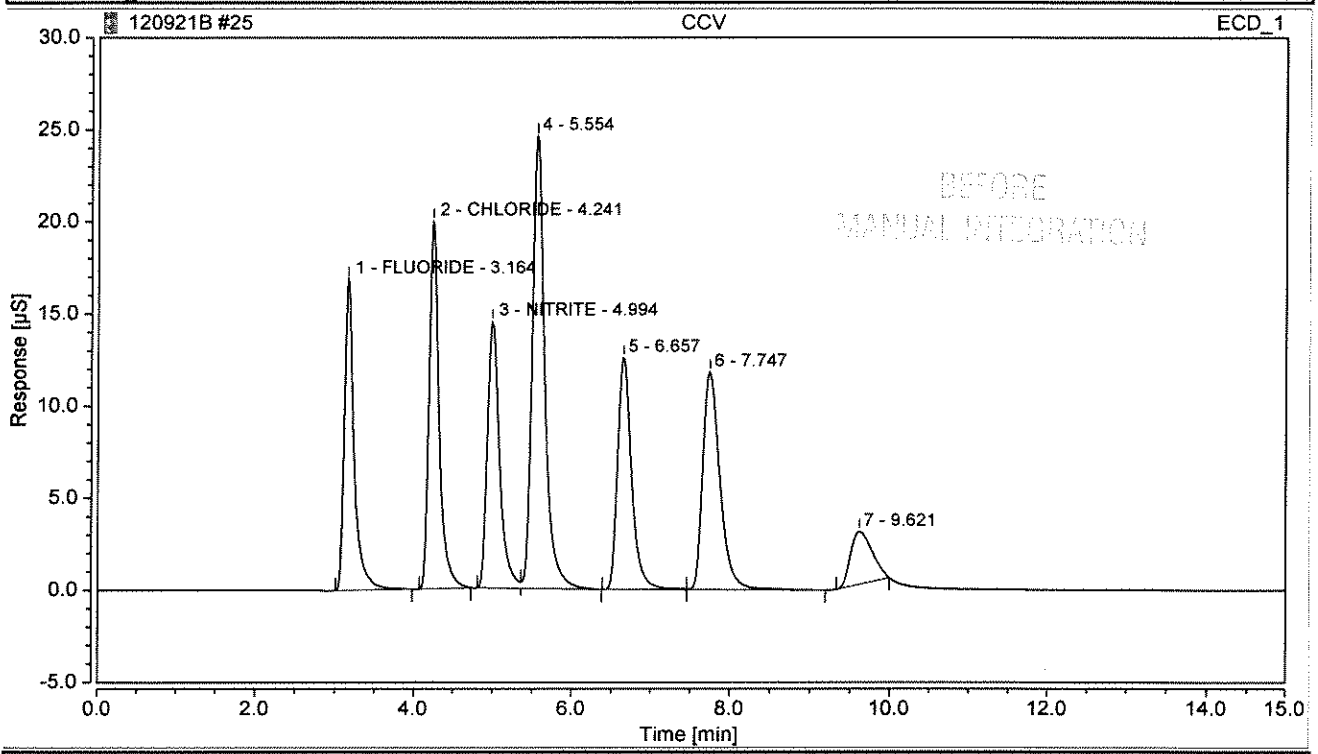
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	1.947	13.512	17.44	19.64	7.9632	n.a.
2	CHLORIDE	4.240	5.327	35.079	47.70	50.99	34.7647	n.a.
3	NITRITE	4.994	0.880	4.710	7.88	6.85	2.6300	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.154**	**53.302**	**73.01**	**77.48**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.98**
Vial Number:	**25**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 21:17**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

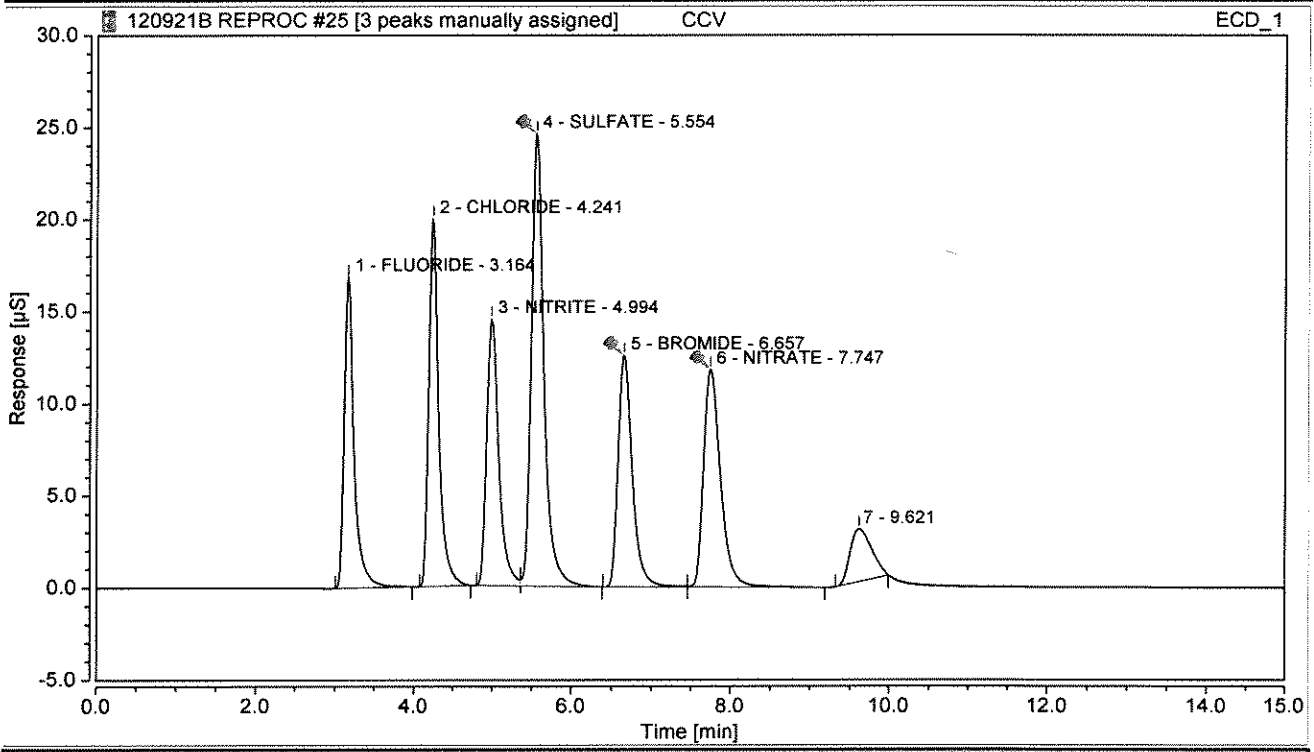
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	2.464	16.898	12.90	16.38	5.0382	0.7637
2	CHLORIDE	4.241	2.971	19.970	15.56	19.35	9.7380	-2.6195
3	NITRITE	4.994	2.602	14.483	13.62	14.04	3.8891	-2.7728
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.038**	**51.351**	**42.08**	**49.76**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.98**
Vial Number:	**25**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 21:17**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

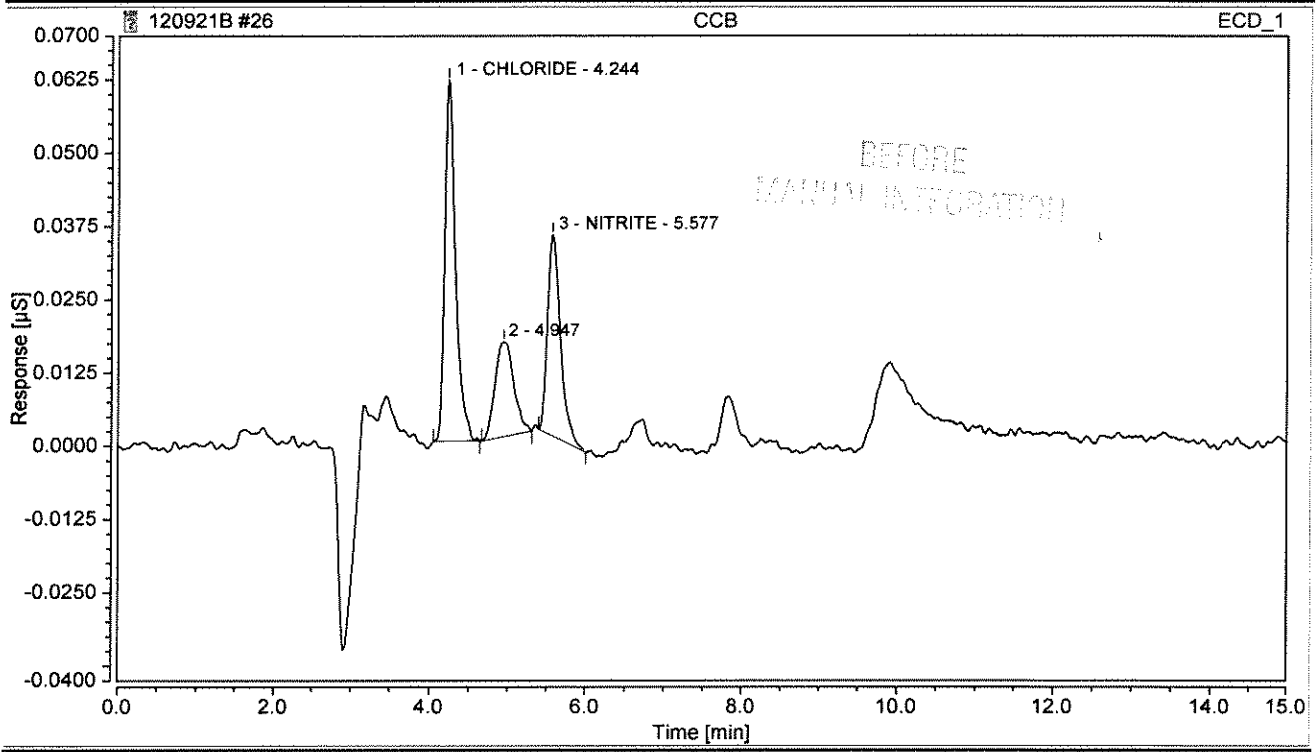
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	2.464	16.898	12.90	16.38	5.0382	0.7637
2	CHLORIDE	4.241	2.971	19.970	15.56	19.35	9.7380	-2.6195
3	NITRITE	4.994	2.602	14.483	13.62	14.04	3.8891	-2.7728
4	SULFATE	5.554	4.584	24.569	24.00	23.81	19.8951	-0.5245
5	BROMIDE	6.657	2.615	12.582	13.69	12.19	19.3996	-3.0020
6	NITRATE	7.747	2.954	11.820	15.47	11.45	3.8522	-3.6951
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**18.191**	**100.322**	**95.24**	**97.22**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.99**
Vial Number:	**26**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 21:37**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

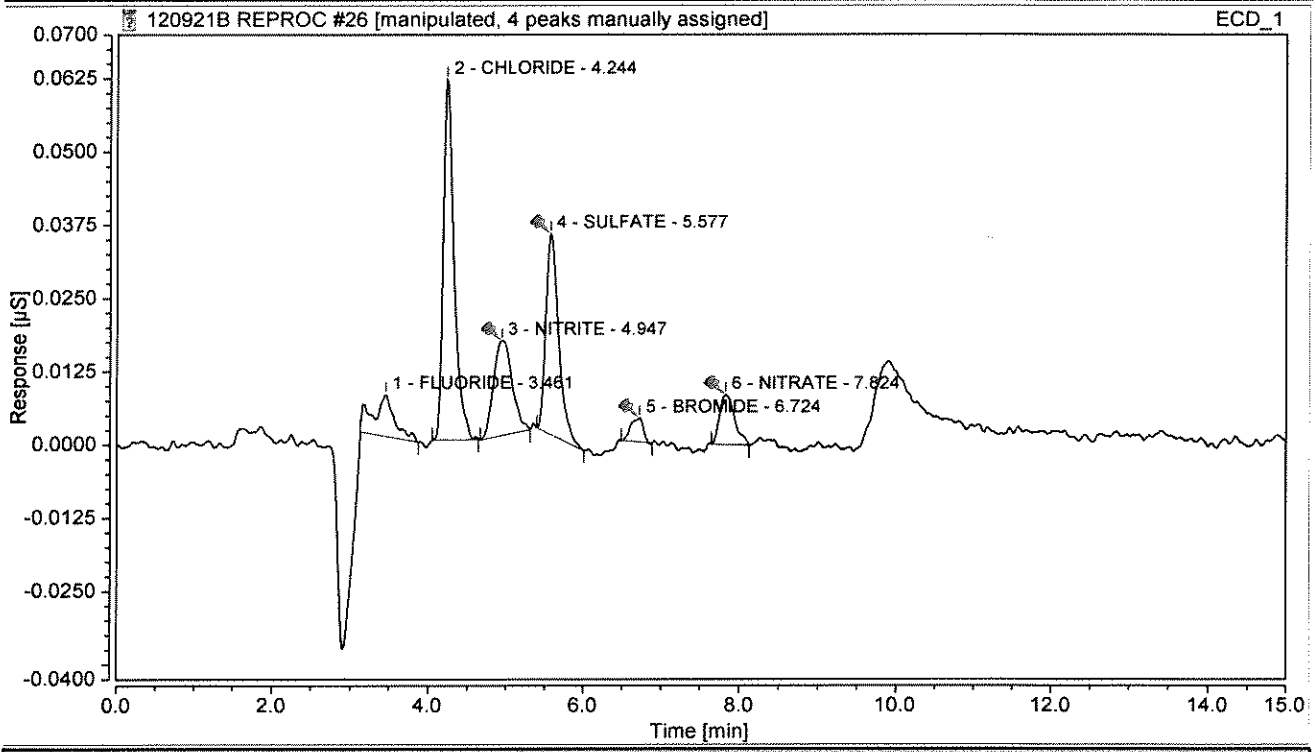
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	CHLORIDE	4.244	0.010	0.062	46.72	54.95	0.1271	n.a.
3	NITRITE	5.577	0.007	0.034	31.71	30.61	0.0099	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.016**	**0.096**	**78.43**	**85.55**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.99**
Vial Number:	**26**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 21:37**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

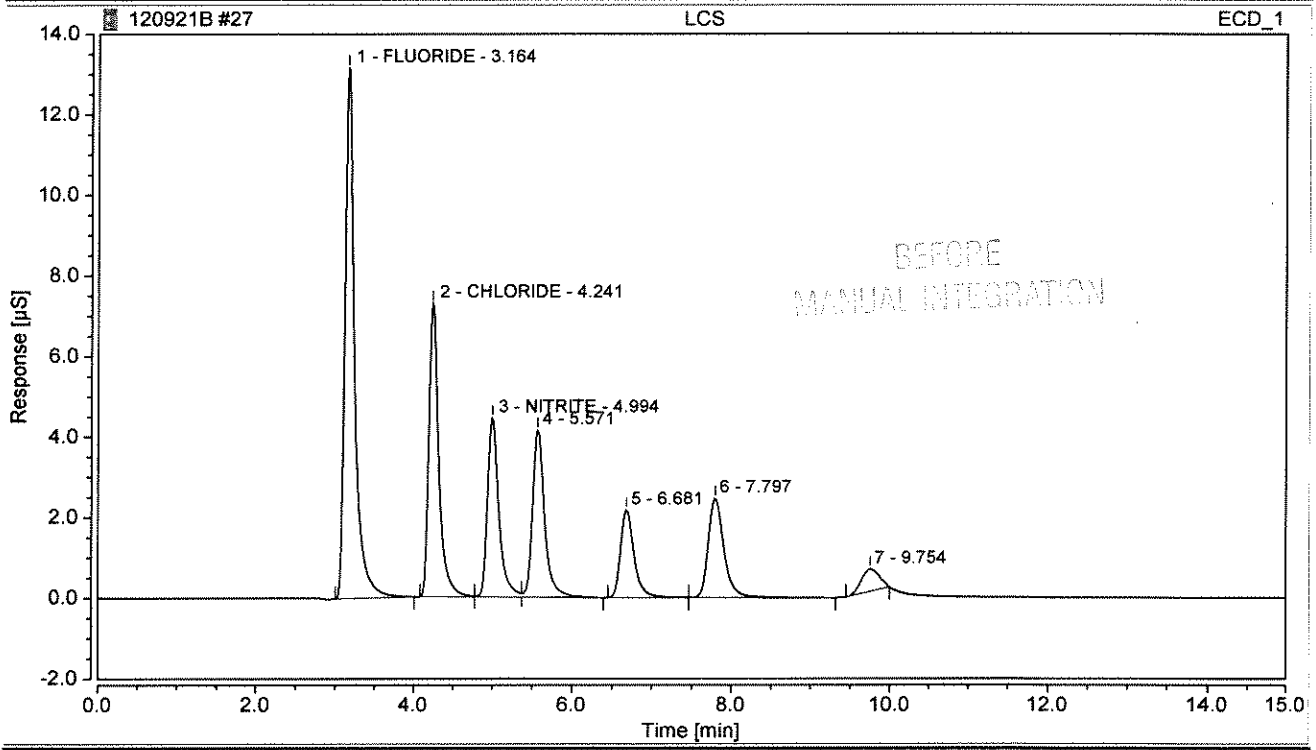
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.461	0.002	0.007	8.88	5.41	0.0047	n.a.
2	CHLORIDE	4.244	0.010	0.062	37.83	46.74	0.1271	n.a.
3	NITRITE	4.947	0.005	0.016	17.46	12.29	0.0068	n.a.
4	SULFATE	5.577	0.007	0.034	25.67	26.03	0.0289	n.a.
5	BROMIDE	6.724	0.001	0.004	2.89	3.08	0.0062	n.a.
6	NITRATE	7.824	0.002	0.008	7.28	6.45	0.0480	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.026**	**0.132**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.99**
Vial Number:	**27**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 21:58**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

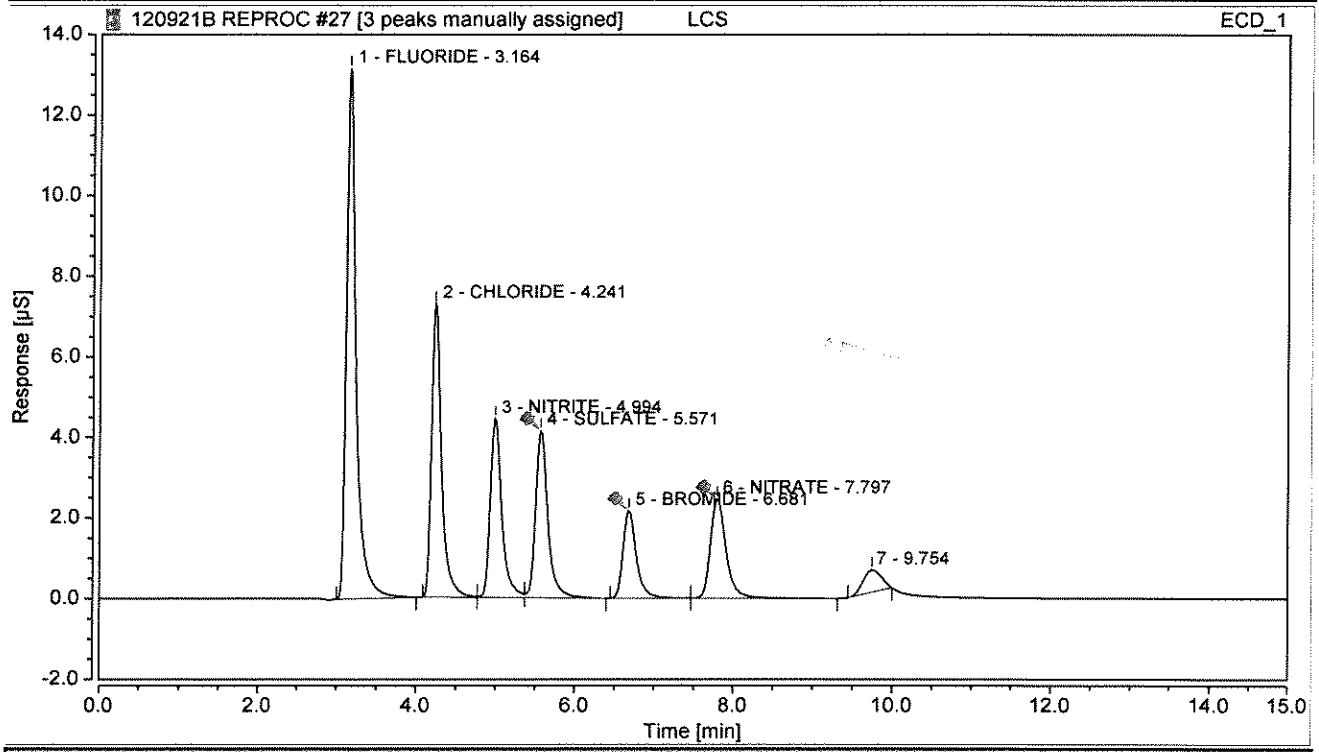
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	1.885	13.175	33.79	38.46	3.8543	2.7824
2	CHLORIDE	4.241	1.064	7.289	19.06	21.28	3.5470	-5.4141
3	NITRITE	4.994	0.746	4.446	13.38	12.98	1.1153	-2.1681
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**3.695**	**24.909**	**66.23**	**72.72**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.99**
Vial Number:	**27**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 21:58**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

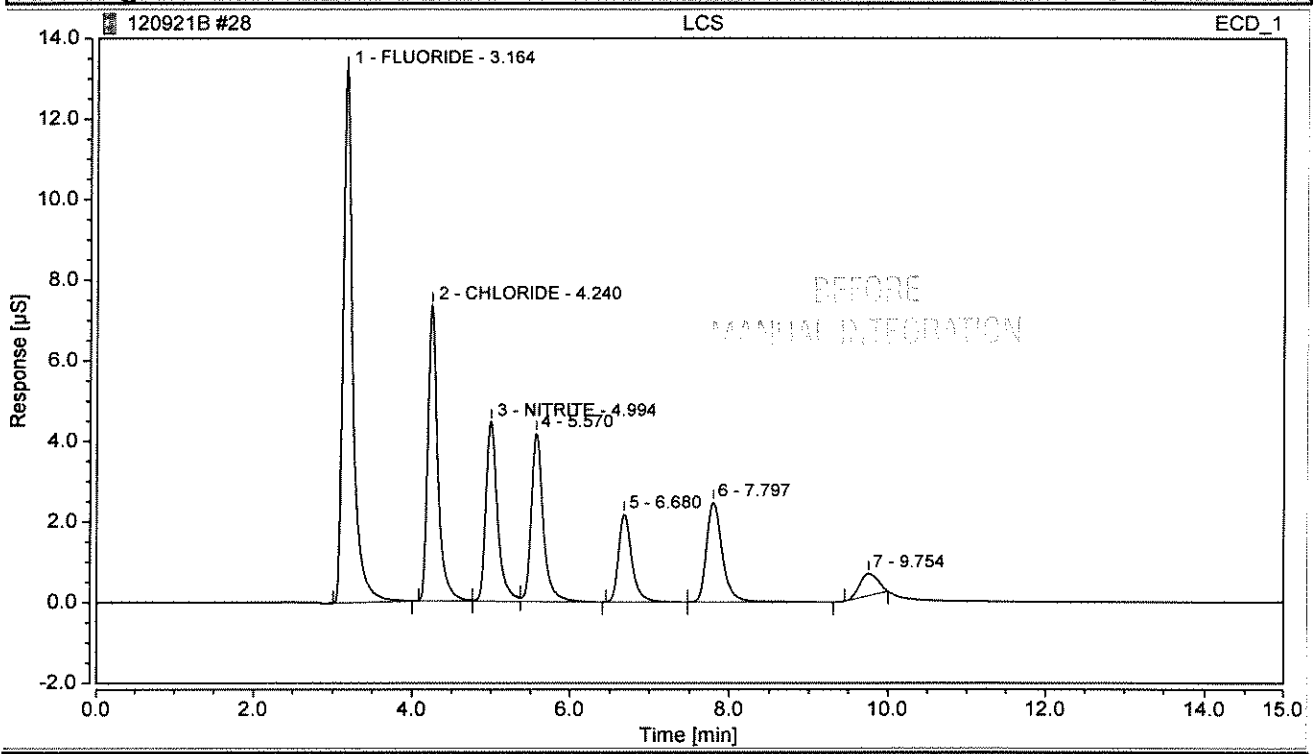
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	1.885	13.175	33.79	38.46	3.8543	2.7824
2	CHLORIDE	4.241	1.064	7.289	19.06	21.28	3.5470	-5.4141
3	NITRITE	4.994	0.746	4.446	13.38	12.98	1.1153	-2.1681
4	SULFATE	5.571	0.741	4.153	13.28	12.12	3.2165	-14.2273
5	BROMIDE	6.681	0.426	2.173	7.63	6.34	3.3501	-10.6629
6	NITRATE	7.797	0.570	2.465	10.21	7.19	0.7794	-7.7662
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.431**	**33.700**	**97.35**	**98.38**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.98**
Vial Number:	**28**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 22:19**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

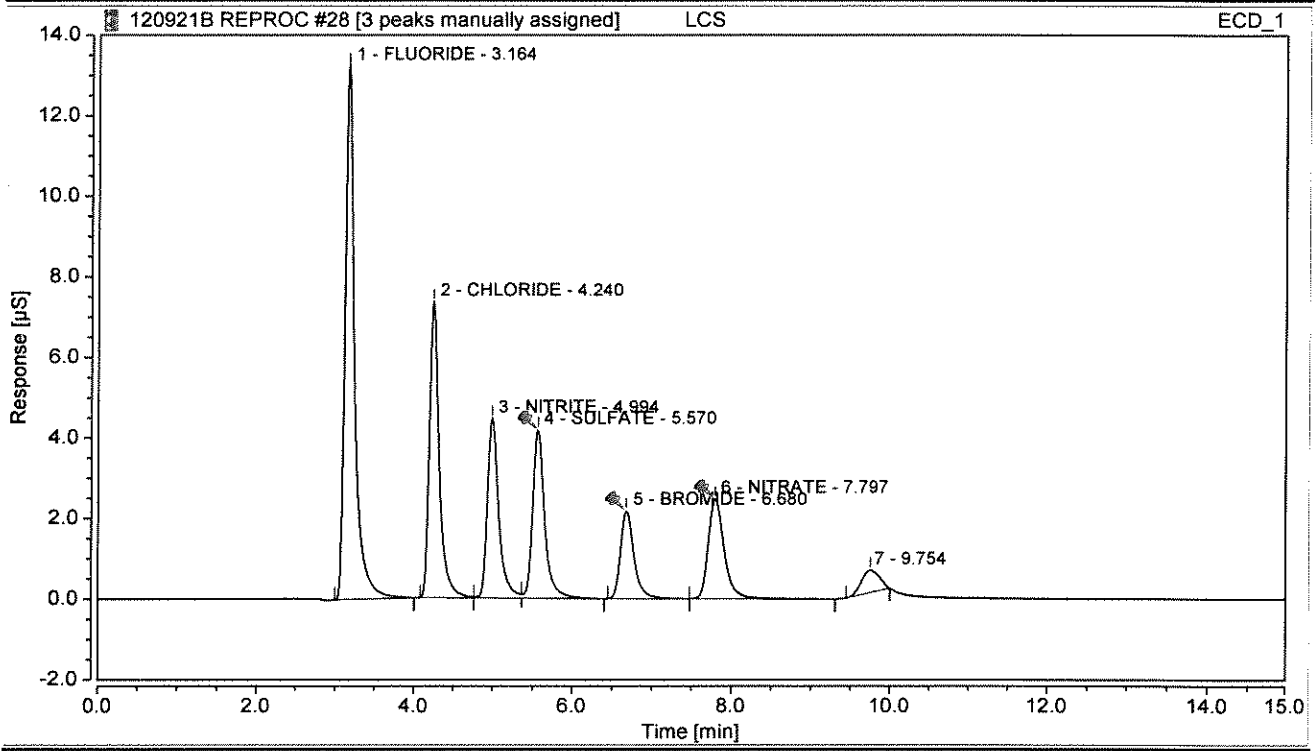
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	1.896	13.251	33.77	38.45	3.8777	3.4062
2	CHLORIDE	4.240	1.073	7.347	19.10	21.32	3.5767	-4.6209
3	NITRITE	4.994	0.750	4.461	13.35	12.94	1.1203	-1.7262
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**3.719**	**25.058**	**66.22**	**72.70**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.98**
Vial Number:	**28**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 22:19**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

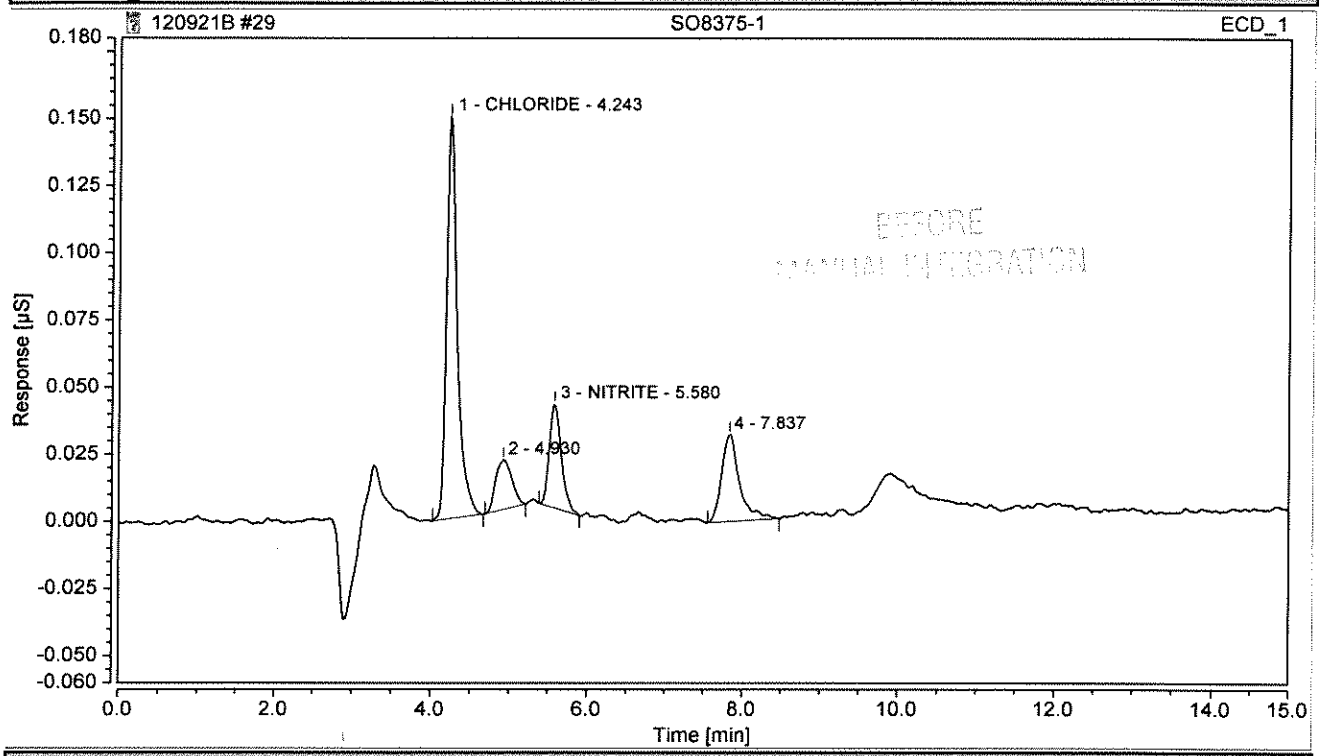
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	1.896	13.251	33.77	38.45	3.8777	3.4062
2	CHLORIDE	4.240	1.073	7.347	19.10	21.32	3.5767	-4.6209
3	NITRITE	4.994	0.750	4.461	13.35	12.94	1.1203	-1.7262
4	SULFATE	5.570	0.747	4.187	13.30	12.15	3.2415	-13.5602
5	BROMIDE	6.680	0.427	2.182	7.61	6.33	3.3642	-10.2871
6	NITRATE	7.797	0.575	2.484	10.23	7.21	0.7861	-6.9734
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.468**	**33.911**	**97.37**	**98.39**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-1**	*Run Time (min):*	**14.99**
Vial Number:	**29**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 22:40**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

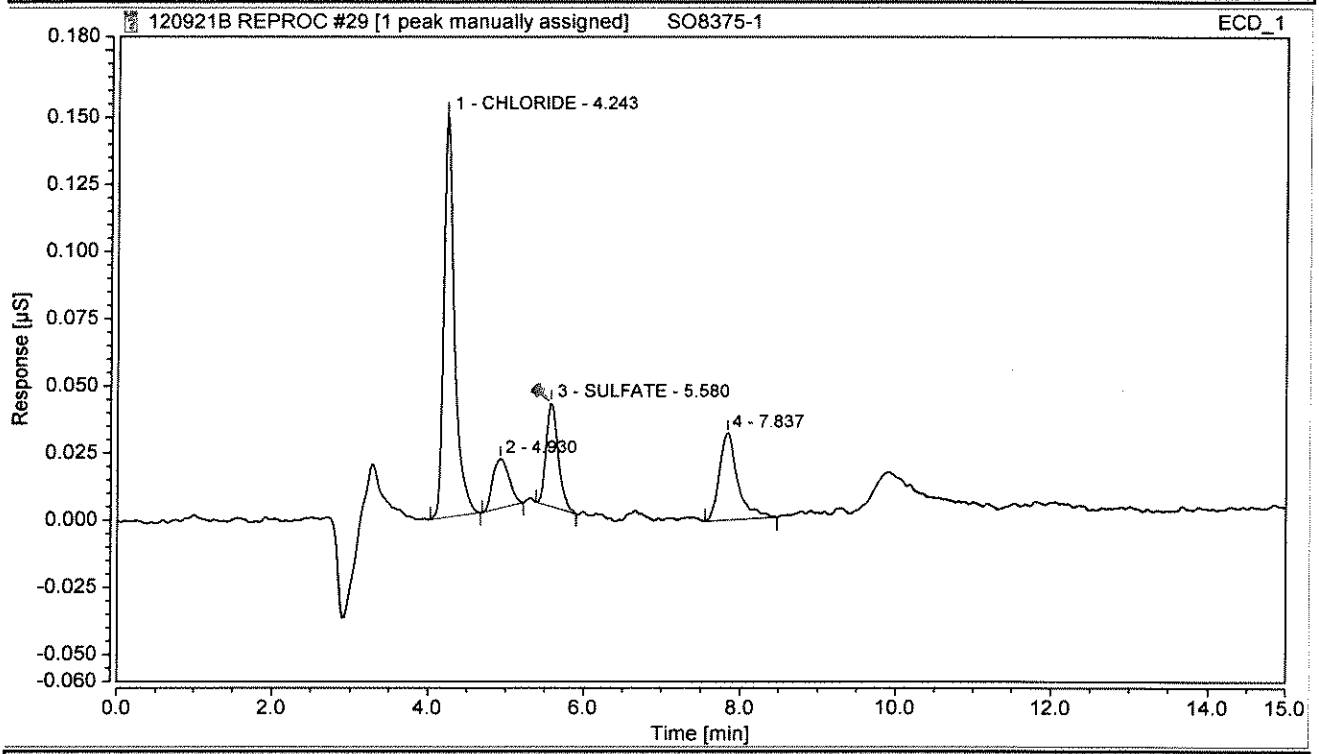
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	CHLORIDE	4.243	0.024	0.150	53.99	62.60	0.1723	n.a.
3	NITRITE	5.580	0.007	0.039	15.83	16.17	0.0104	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.031**	**0.188**	**69.82**	**78.77**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-1**	*Run Time (min):*	**14.99**
Vial Number:	**29**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 22:40**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

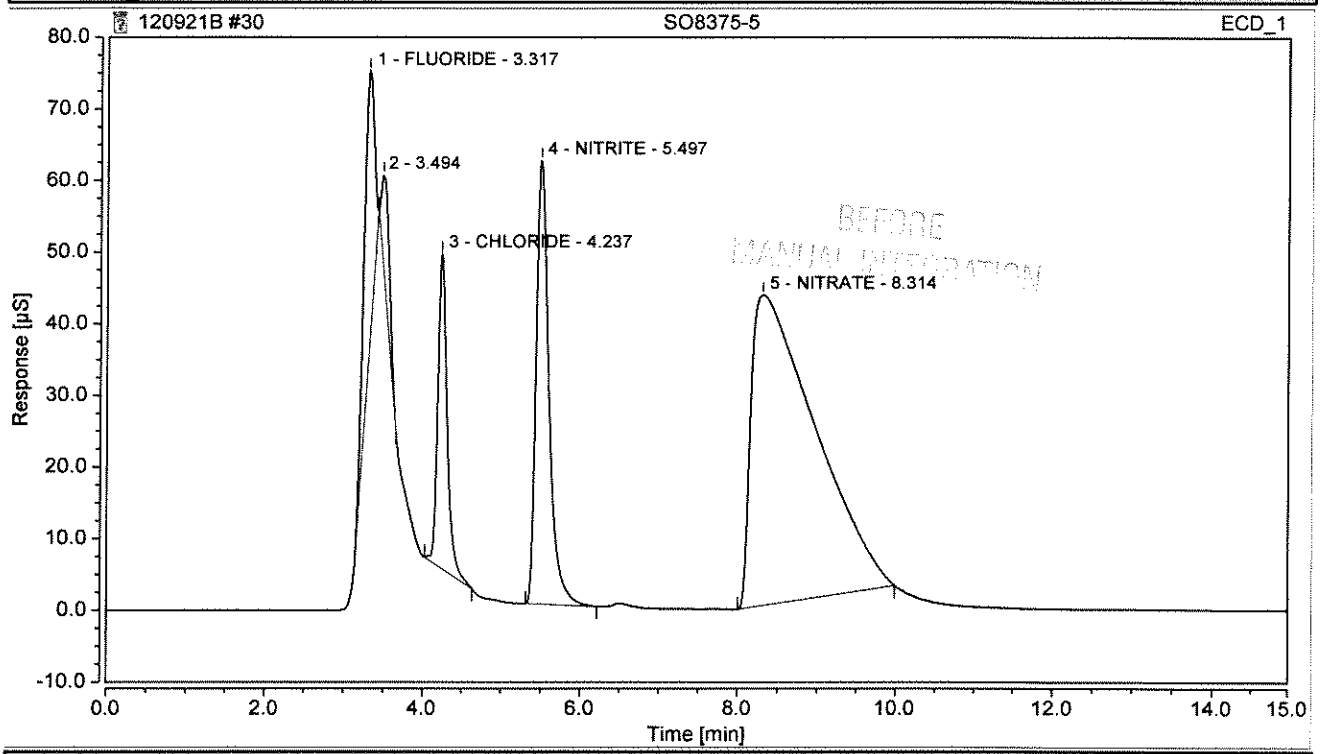
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	CHLORIDE	4.243	0.024	0.150	53.99	62.60	0.1723	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	SULFATE	5.580	0.007	0.039	15.83	16.17	0.0302	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.031**	**0.188**	**69.82**	**78.77**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-5**	*Run Time (min):*	**14.97**
Vial Number:	**30**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**09/Dec/21 23:00**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

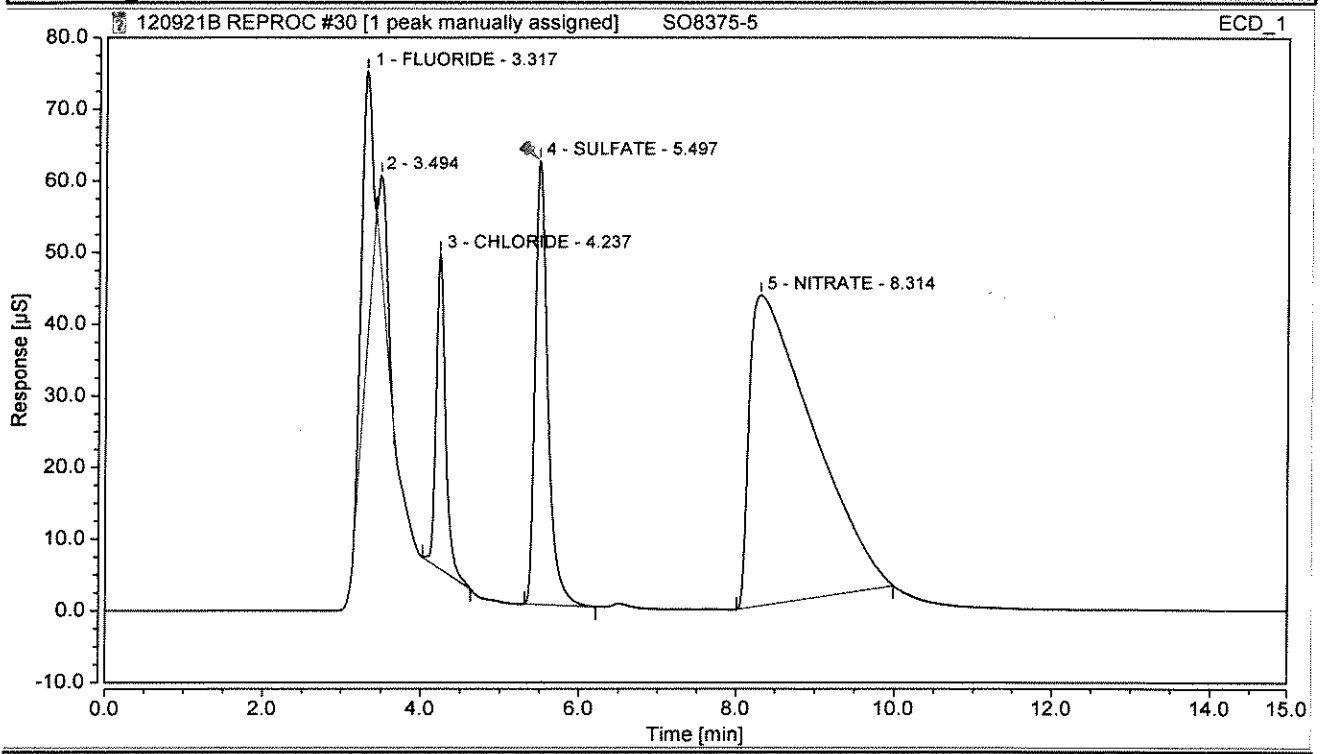
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.317	5.582	38.622	8.54	19.17	114.1277	n.a.
3	CHLORIDE	4.237	6.075	43.939	9.29	21.80	198.0941	n.a.
4	NITRITE	5.497	11.657	61.985	17.83	30.76	174.2247	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	NITRATE	8.314	40.339	43.393	61.70	21.53	520.2237	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**63.652**	**187.938**	**97.36**	**93.26**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-5**	*Run Time (min):*	**14.97**
Vial Number:	**30**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**09/Dec/21 23:00**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

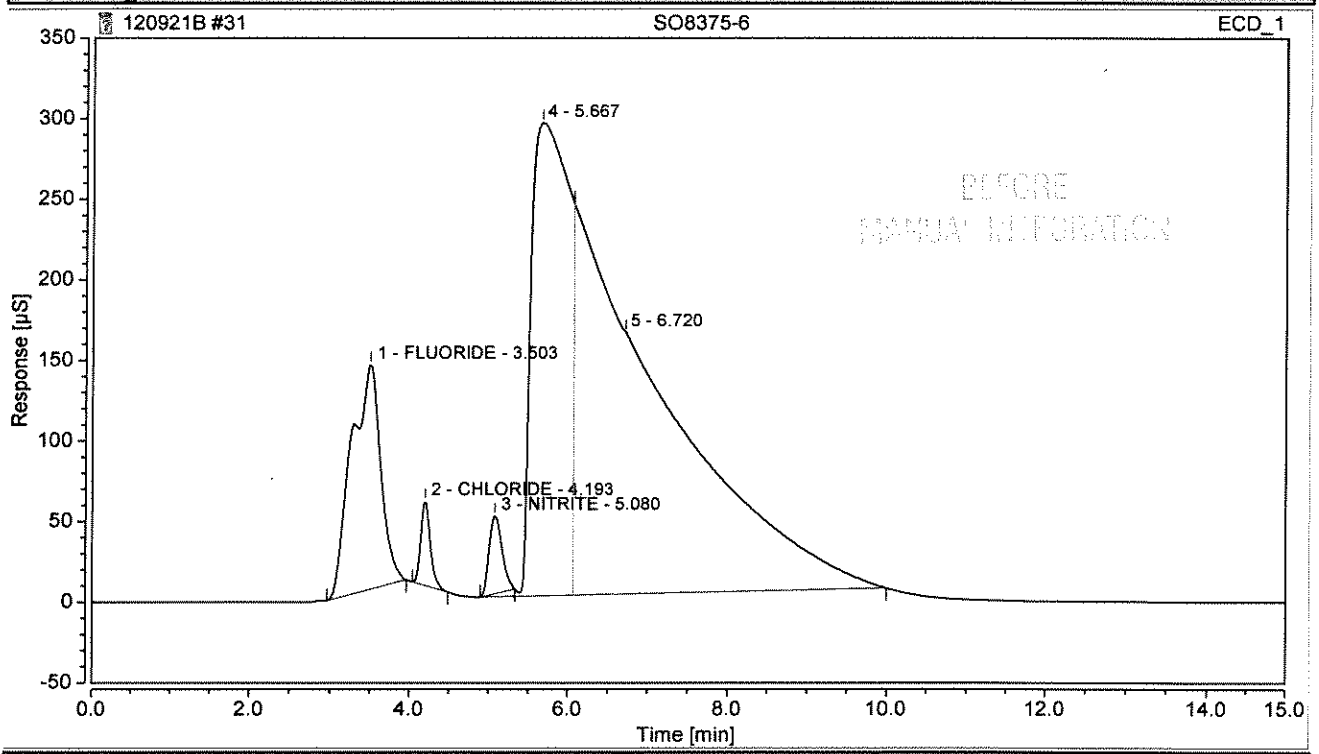
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.317	5.582	38.622	8.54	19.17	114.1277	n.a.
3	CHLORIDE	4.237	6.075	43.939	9.29	21.80	198.0941	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	SULFATE	5.497	11.657	61.985	17.83	30.76	505.9082	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	NITRATE	8.314	40.339	43.393	61.70	21.53	520.2237	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**63.652**	**187.938**	**97.36**	**93.26**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-6**	*Run Time (min):*	**14.99**
Vial Number:	**31**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**09/Dec/21 23:21**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

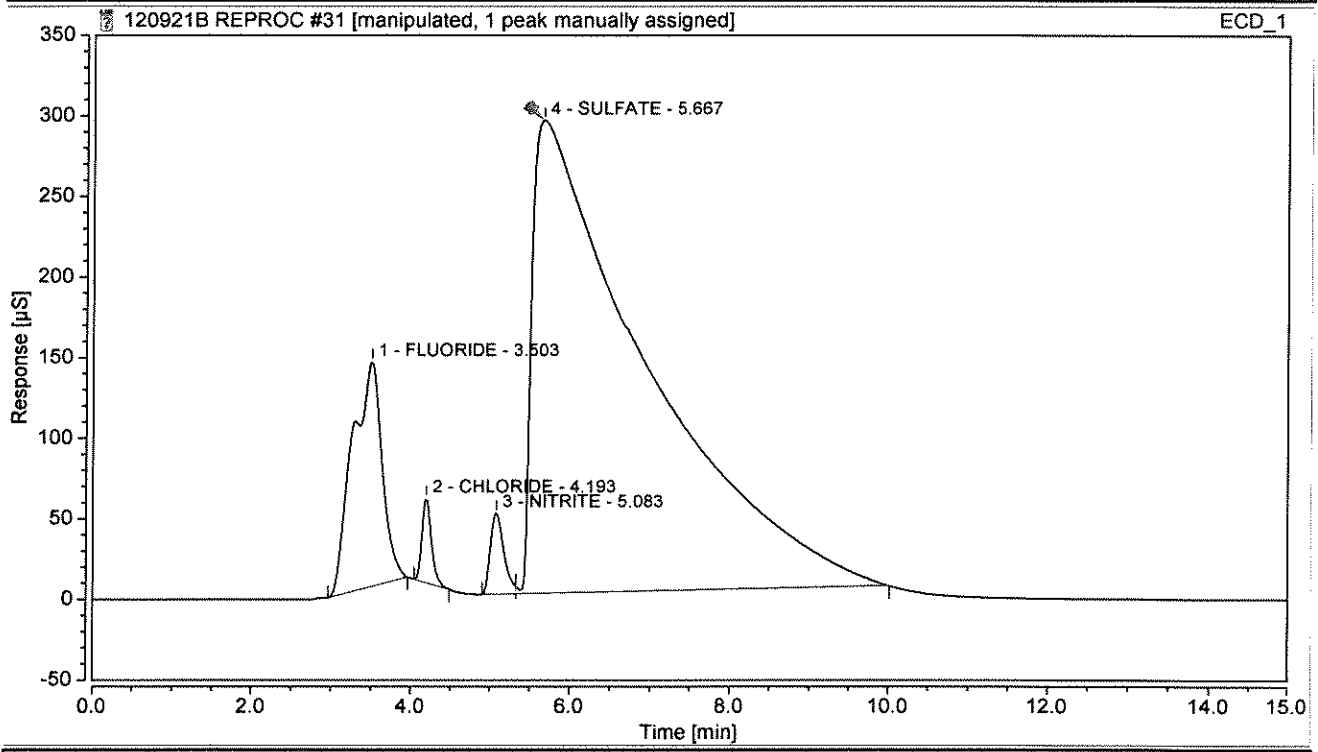
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.503	60.398	139.566	10.80	20.04	1234.9838	n.a.
2	CHLORIDE	4.193	7.367	52.433	1.32	7.53	240.0399	n.a.
3	NITRITE	5.080	9.039	48.389	1.62	6.95	135.0881	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**76.804**	**240.387**	**13.73**	**34.52**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-6**	*Run Time (min):*	**14.99**
Vial Number:	**31**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**09/Dec/21 23:21**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

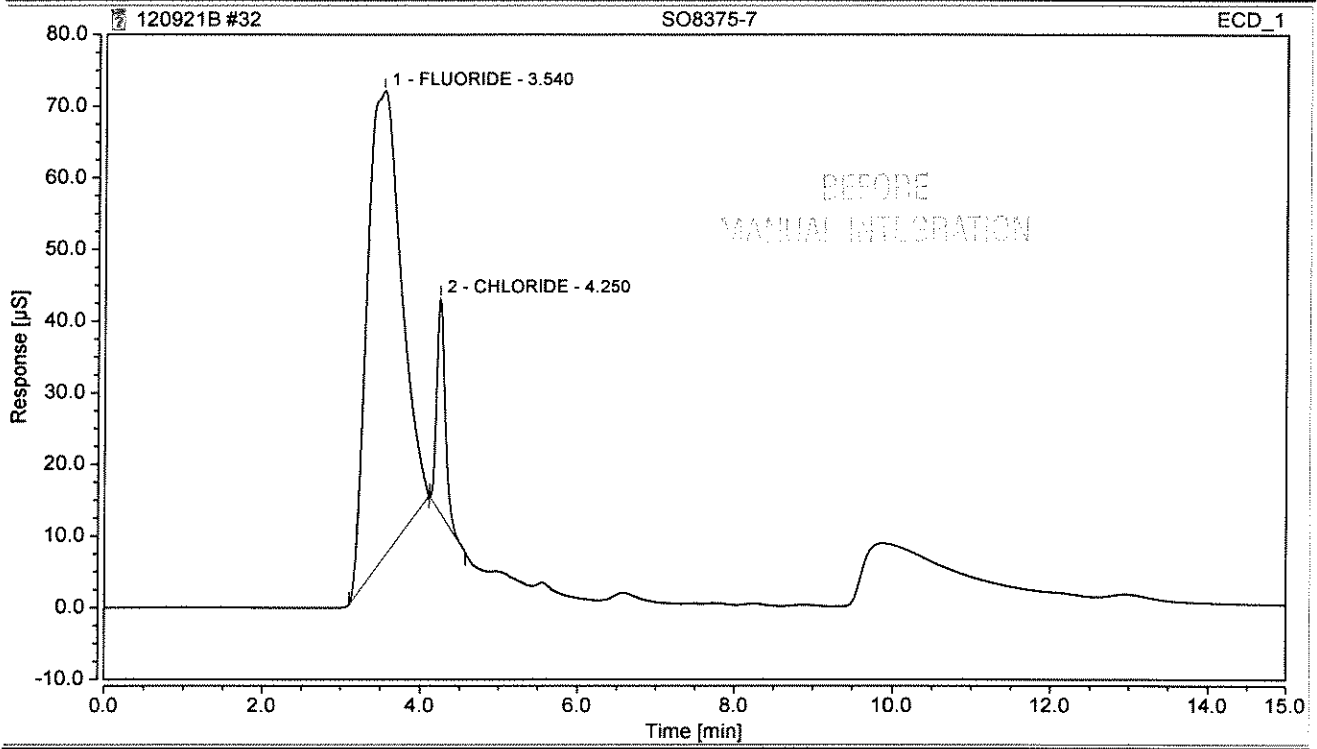
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.503	60.398	139.566	10.80	26.04	1234.9838	n.a.
2	CHLORIDE	4.193	7.367	52.433	1.32	9.78	240.0399	n.a.
3	NITRITE	5.083	10.034	50.359	1.79	9.40	149.9634	n.a.
4	SULFATE	5.667	481.623	293.599	86.09	54.78	20901.5527	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**559.422**	**535.955**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-7**	*Run Time (min):*	**14.98**
Vial Number:	**32**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 23:42**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

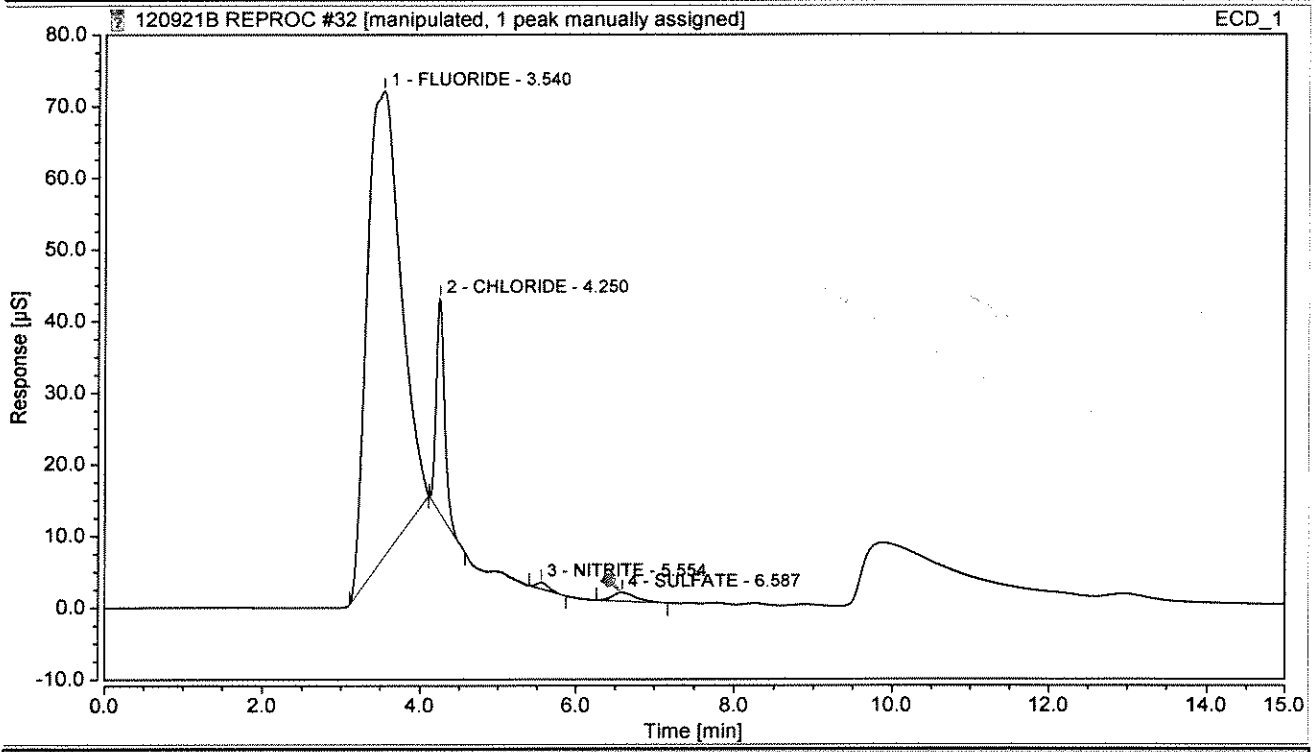
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.540	32.394	65.147	89.60	68.52	66.2368	n.a.
2	CHLORIDE	4.250	3.762	29.936	10.40	31.48	12.3027	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**36.155**	**95.084**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-7**	*Run Time (min):*	**14.98**
Vial Number:	**32**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**09/Dec/21 23:42**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

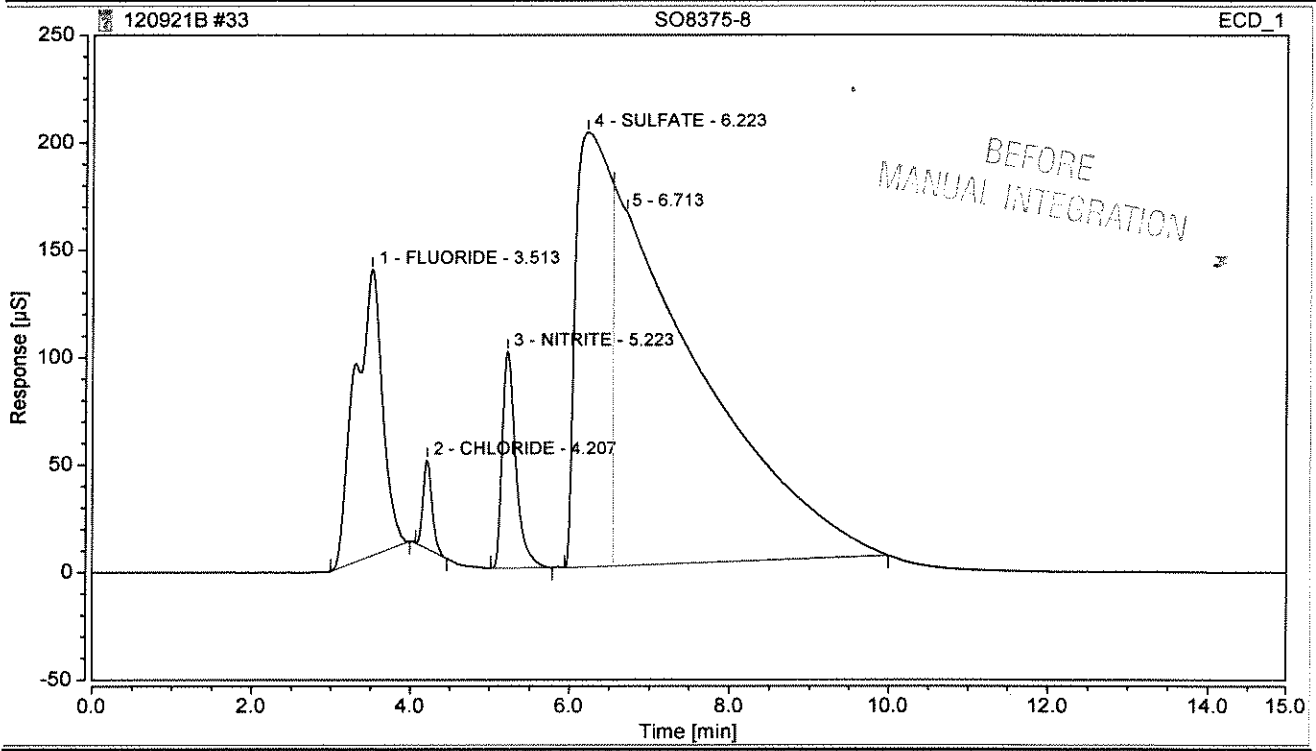
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.540	32.394	65.147	88.19	67.00	66.2368	n.a.
2	CHLORIDE	4.250	3.762	29.936	10.24	30.79	12.3027	n.a.
3	NITRITE	5.554	0.162	0.949	0.44	0.98	0.2428	n.a.
4	SULFATE	6.587	0.414	1.203	1.13	1.24	1.7964	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**36.732**	**97.235**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-8**	*Run Time (min):*	**14.98**
Vial Number:	**33**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**10/Dec/21 00:03**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

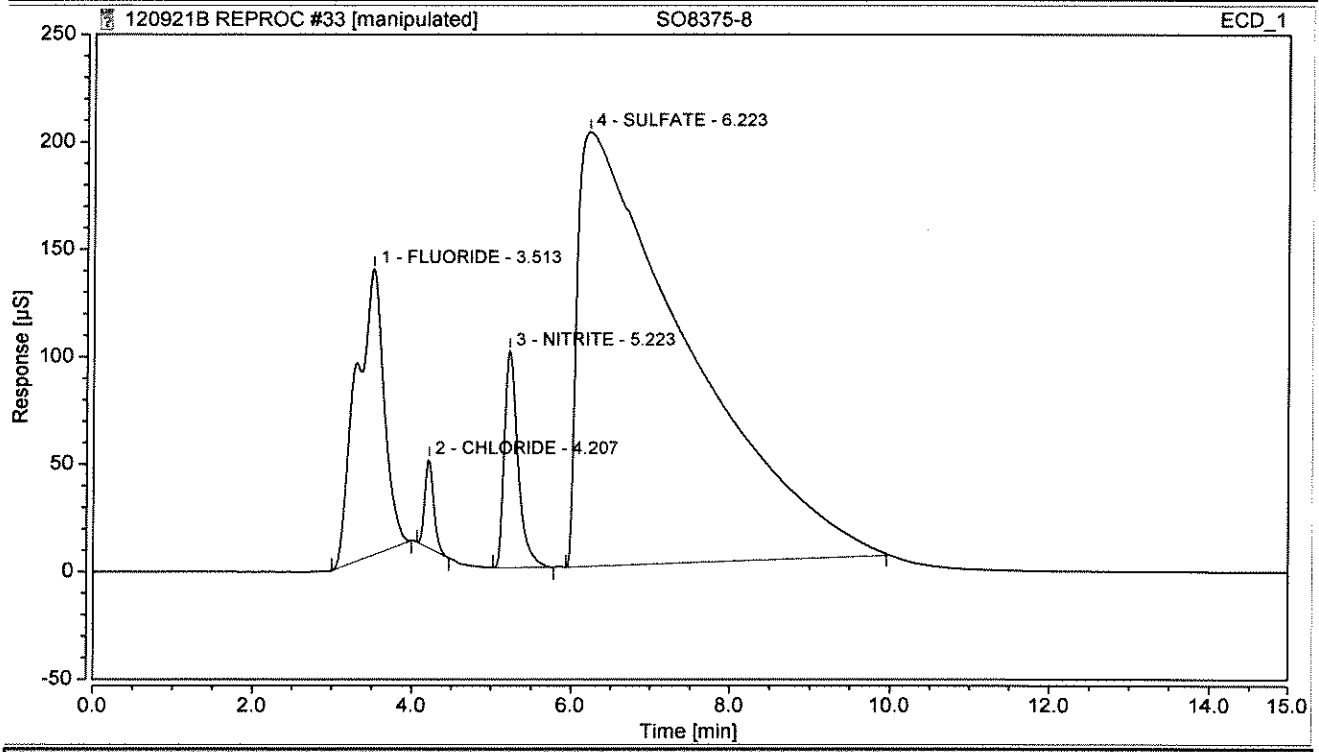
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.513	53.653	133.282	13.35	20.76	1097.0626	n.a.
2	CHLORIDE	4.207	5.401	41.161	1.34	6.41	176.2396	n.a.
3	NITRITE	5.223	20.115	100.802	5.01	15.70	300.6304	n.a.
4	SULFATE	6.223	97.245	202.338	24.20	31.51	4220.2456	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**176.414**	**477.582**	**43.90**	**74.37**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-8**	*Run Time (min):*	**14.98**
Vial Number:	**33**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**10/Dec/21 00:03**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

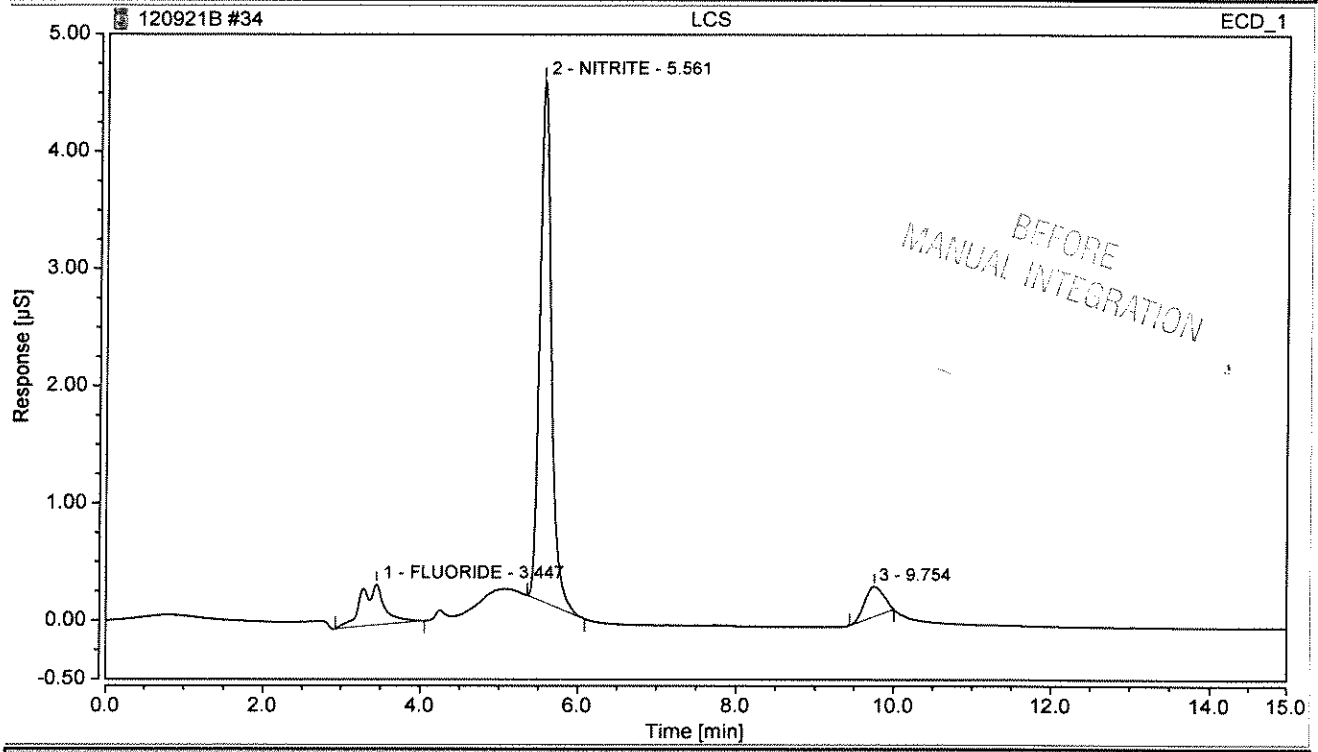
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.513	53.653	133.282	13.35	27.91	1097.0626	n.a.
2	CHLORIDE	4.207	5.401	41.161	1.34	8.62	176.2396	n.a.
3	NITRITE	5.223	20.115	100.802	5.01	21.11	300.6304	n.a.
4	SULFATE	6.223	322.667	202.338	80.30	42.37	14003.1461	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**401.836**	**477.582**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.98**
Vial Number:	**34**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 00:24**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

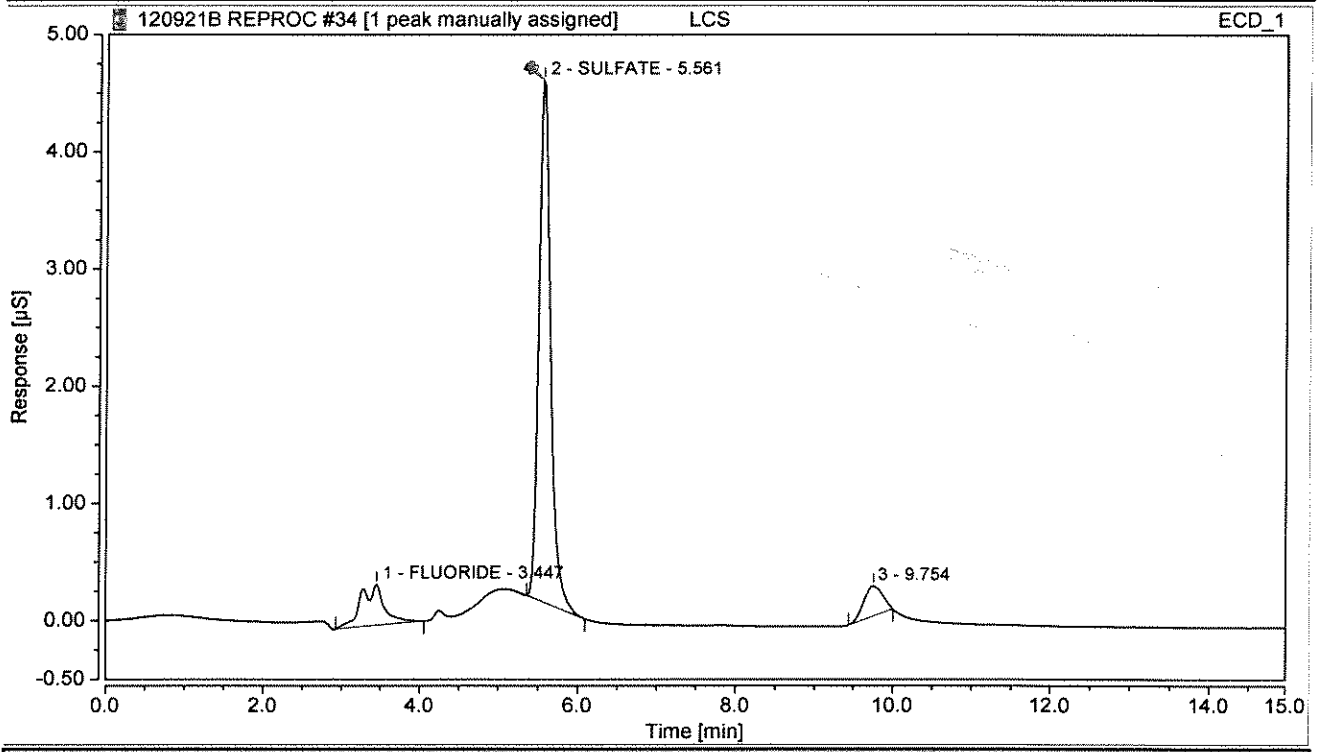
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.447	0.123	0.349	12.77	6.91	0.2513	-93.2974
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	NITRITE	5.561	0.769	4.452	79.87	88.04	1.1492	0.8028
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.892**	**4.802**	**92.64**	**94.95**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.98**
Vial Number:	**34**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 00:24**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

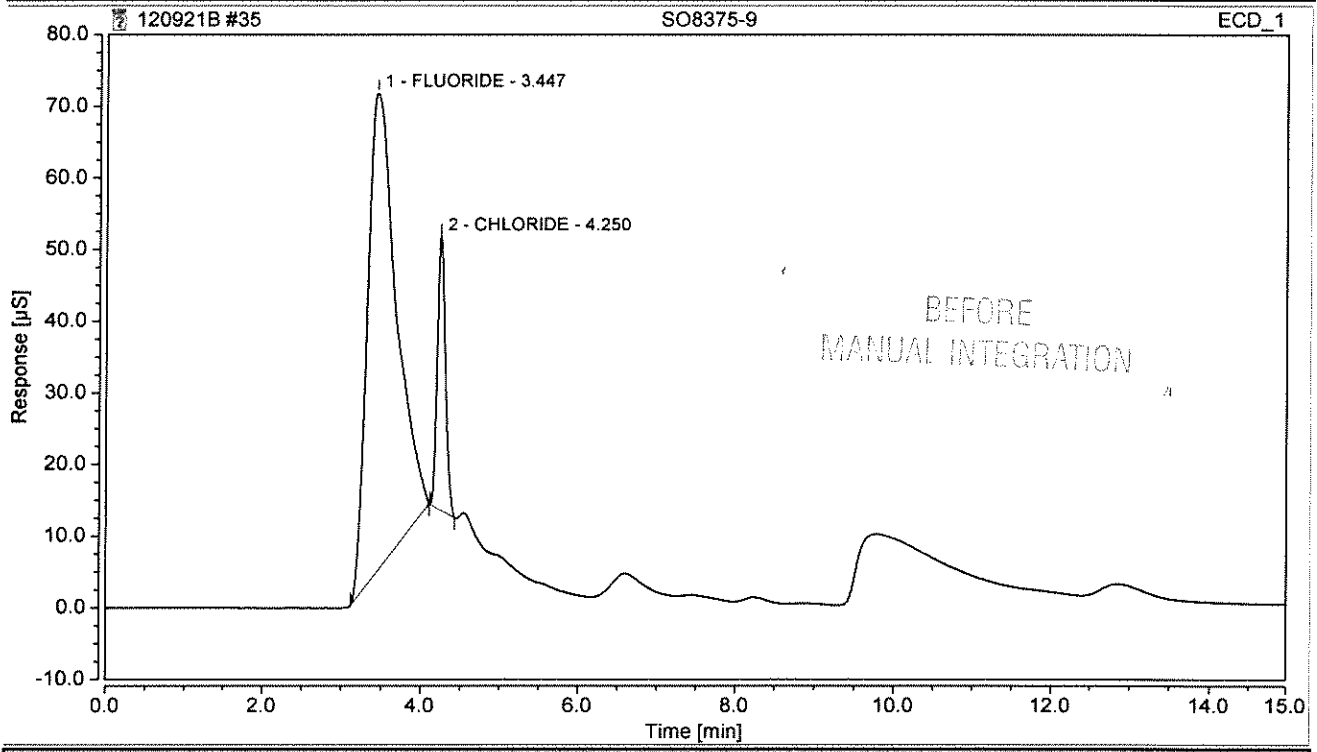
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.447	0.123	0.349	12.77	6.91	0.2513	-93.2974
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	SULFATE	5.561	0.769	4.452	79.87	88.04	3.3369	-11.0168
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.892**	**4.802**	**92.64**	**94.95**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-9**	*Run Time (min):*	**14.97**
Vial Number:	**35**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 00:44**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

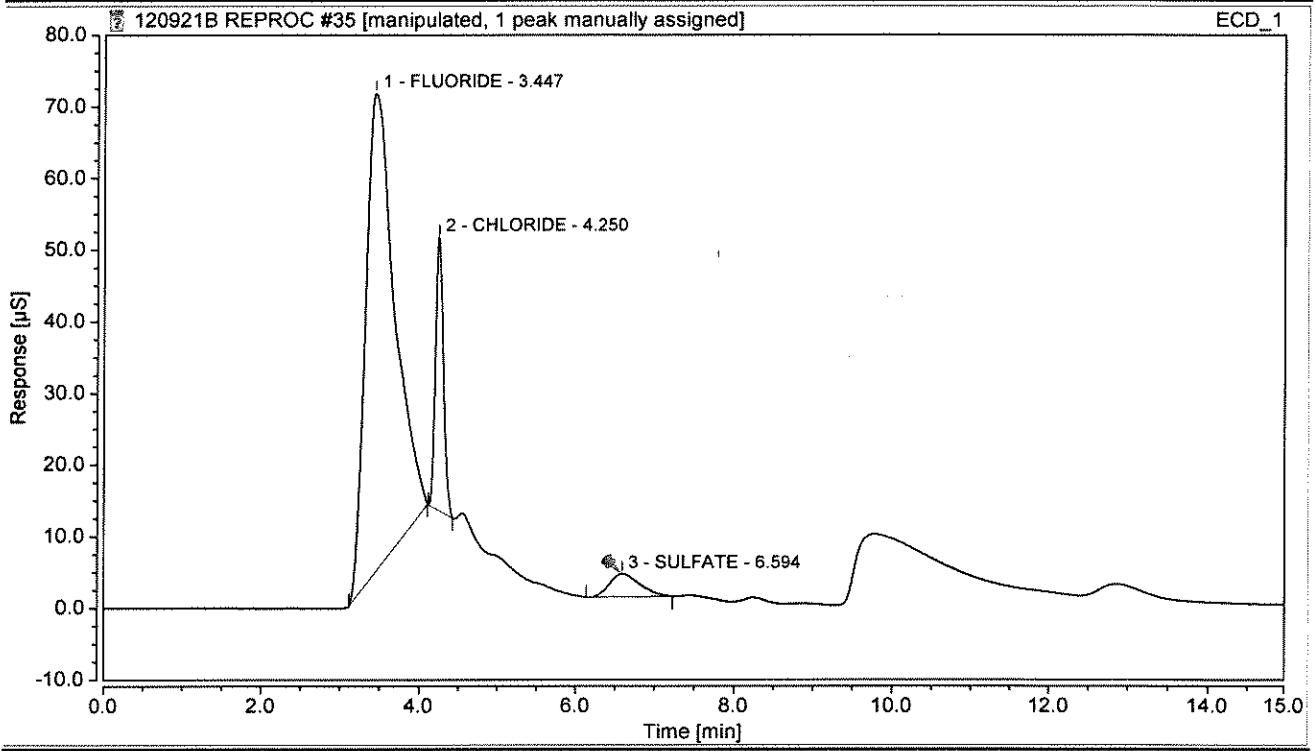
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.447	28.200	66.876	86.08	63.65	57.6628	n.a.
2	CHLORIDE	4.250	4.561	38.198	13.92	36.35	14.8973	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**32.762**	**105.074**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-9**	*Run Time (min):*	**14.97**
Vial Number:	**35**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 00:44**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

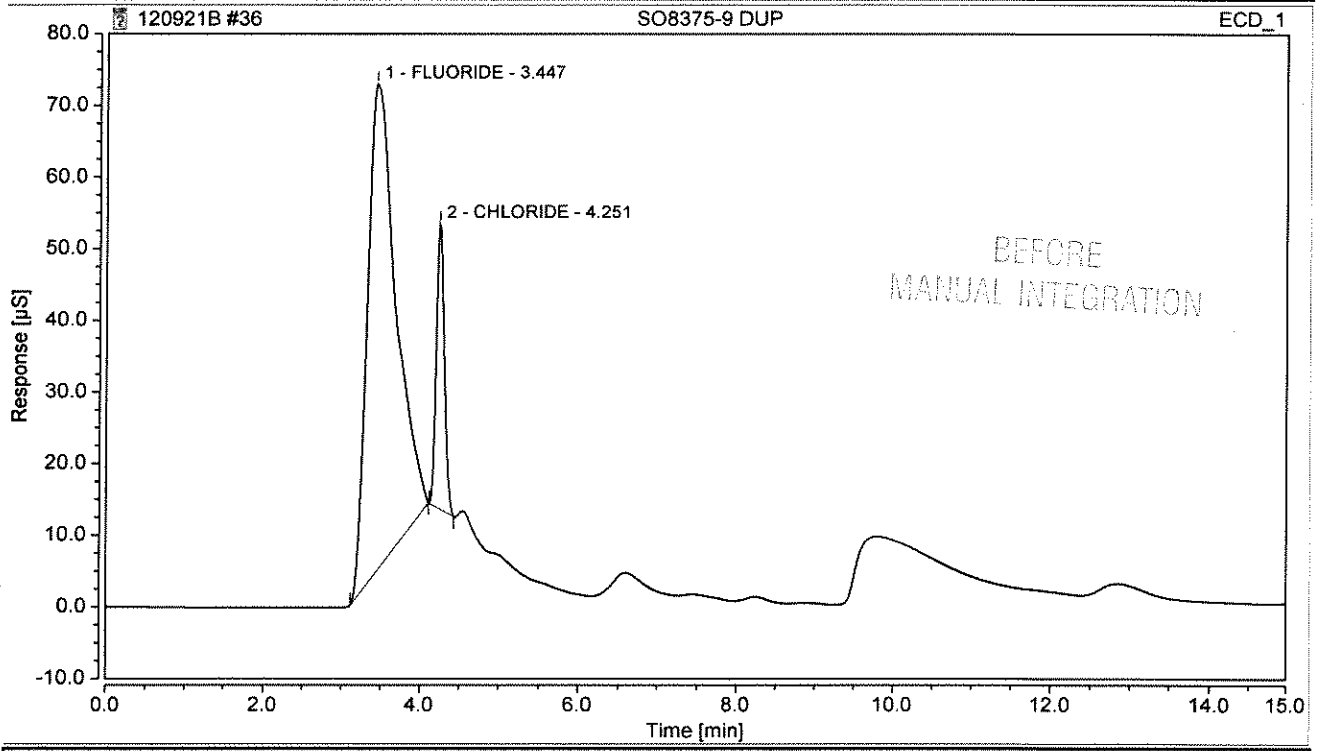
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.447	28.200	66.876	82.48	61.76	57.6628	n.a.
2	CHLORIDE	4.250	4.561	38.198	13.34	35.28	14.8973	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	SULFATE	6.594	1.429	3.207	4.18	2.96	6.2028	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**34.191**	**108.281**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-9 DUP**	*Run Time (min):*	**14.98**
Vial Number:	**36**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 01:05**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

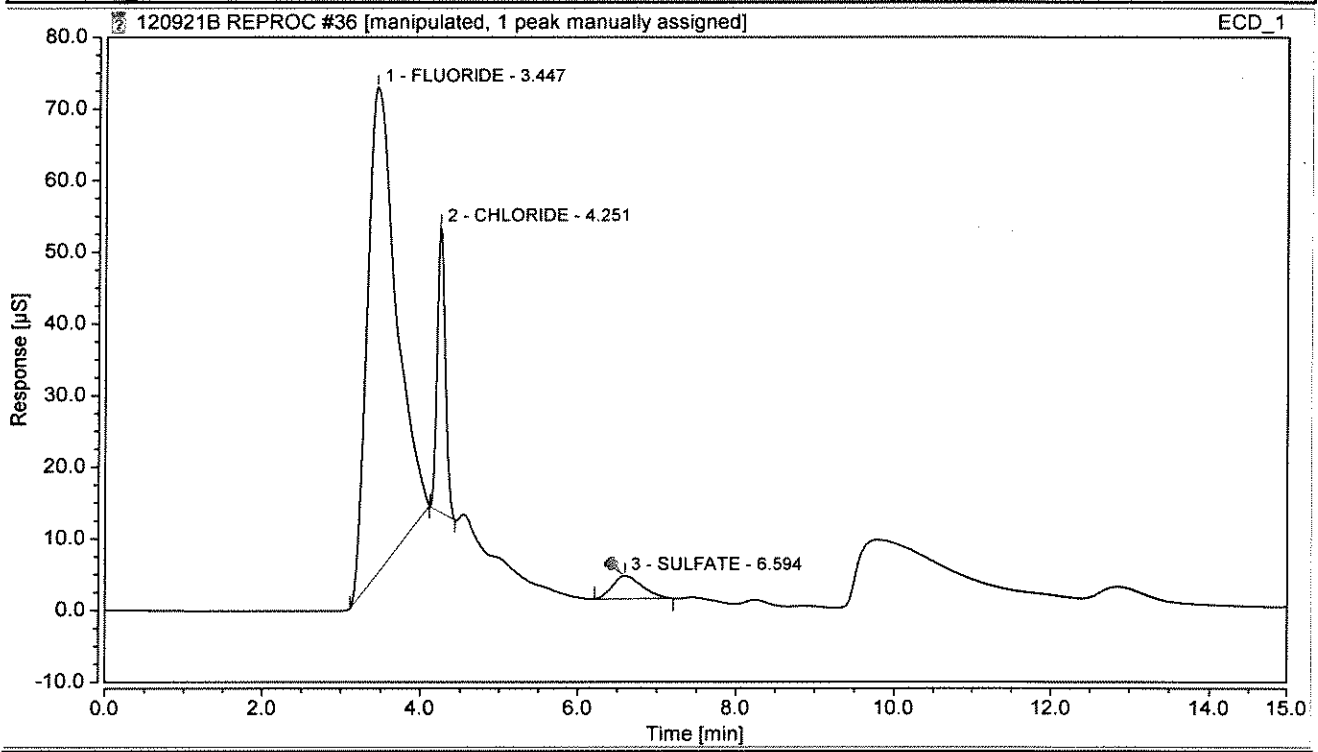
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.447	28.614	67.990	85.81	63.06	58.5086	n.a.
2	CHLORIDE	4.251	4.732	39.820	14.19	36.94	15.4522	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**33.346**	**107.810**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-9 DUP**	*Run Time (min):*	**14.98**
Vial Number:	**36**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 01:05**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

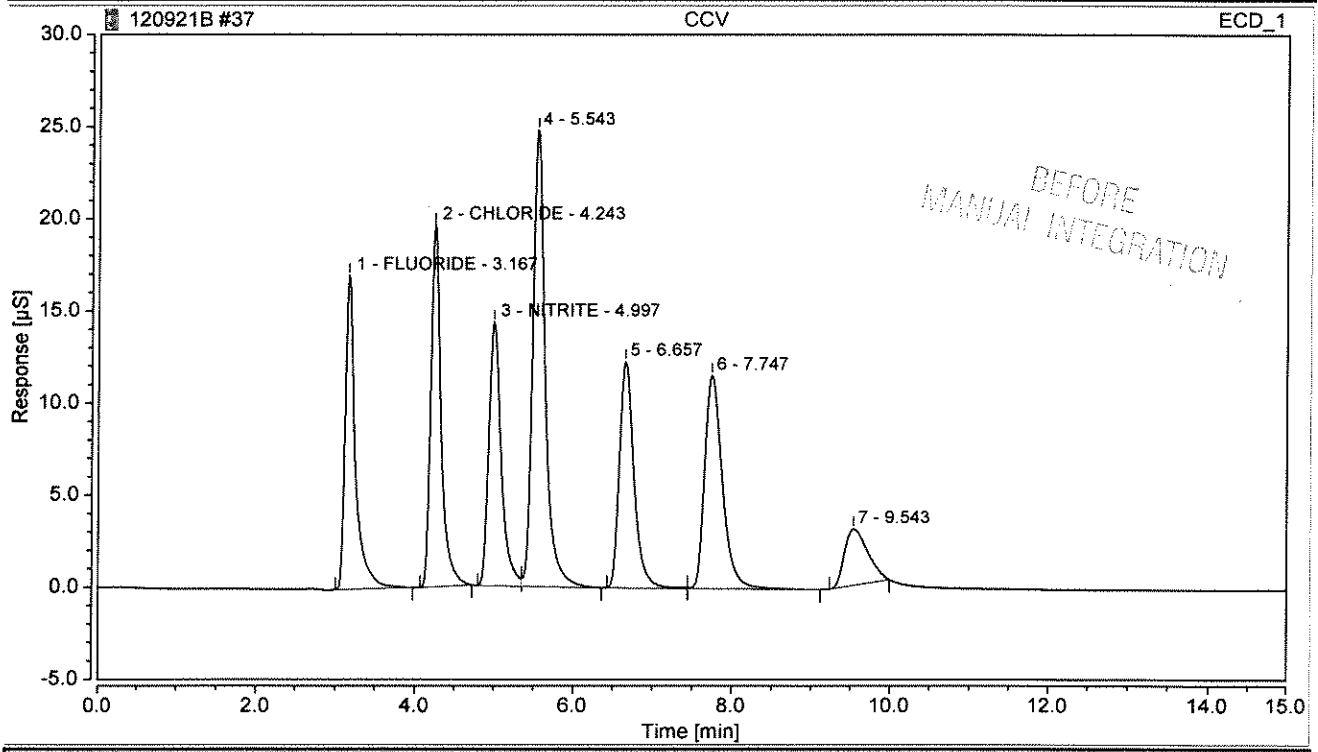
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.447	28.614	67.990	82.31	61.24	58.5086	n.a.
2	CHLORIDE	4.251	4.732	39.820	13.61	35.87	15.4522	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	SULFATE	6.594	1.416	3.212	4.07	2.89	6.1465	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**34.763**	**111.022**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.99**
Vial Number:	**37**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 01:26**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

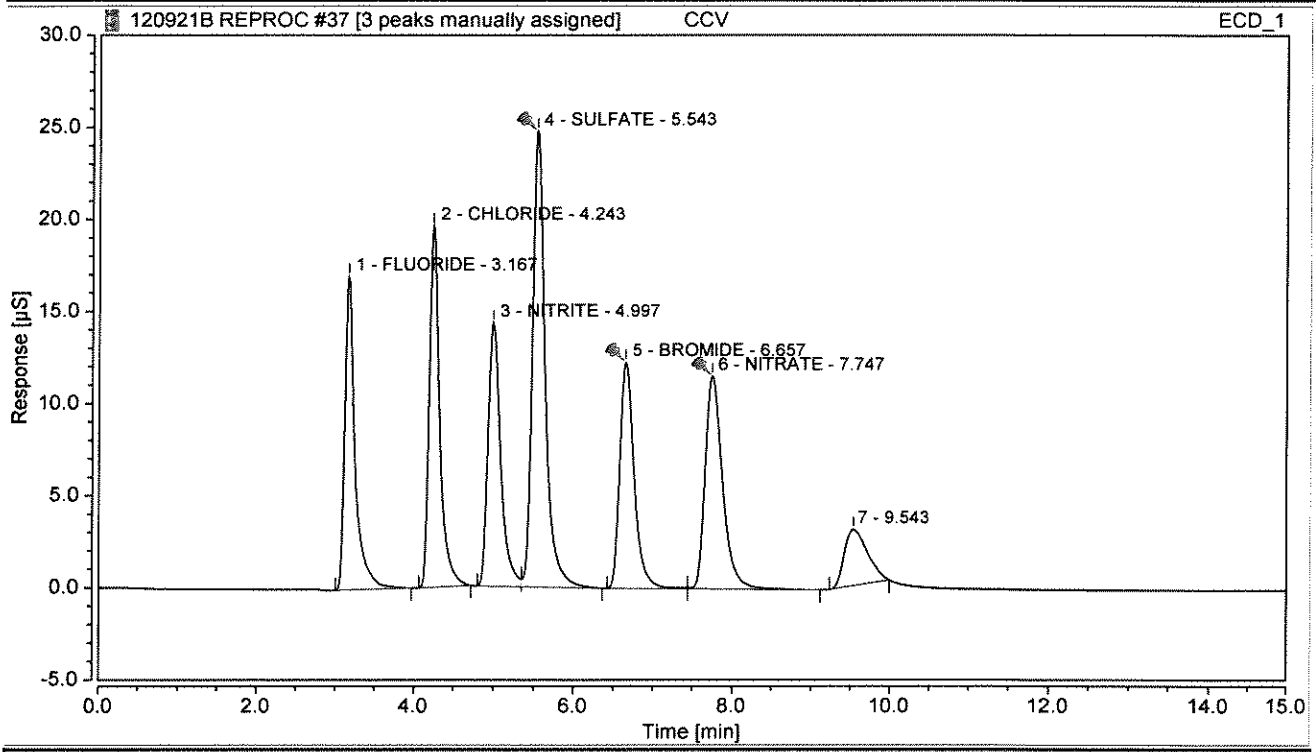
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	2.588	17.031	13.28	16.58	5.2912	5.8245
2	CHLORIDE	4.243	2.982	19.644	15.31	19.13	9.7735	-2.2655
3	NITRITE	4.997	2.623	14.315	13.46	13.94	3.9195	-2.0131
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.193**	**50.990**	**42.05**	**49.65**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.99**
Vial Number:	**37**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 01:26**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

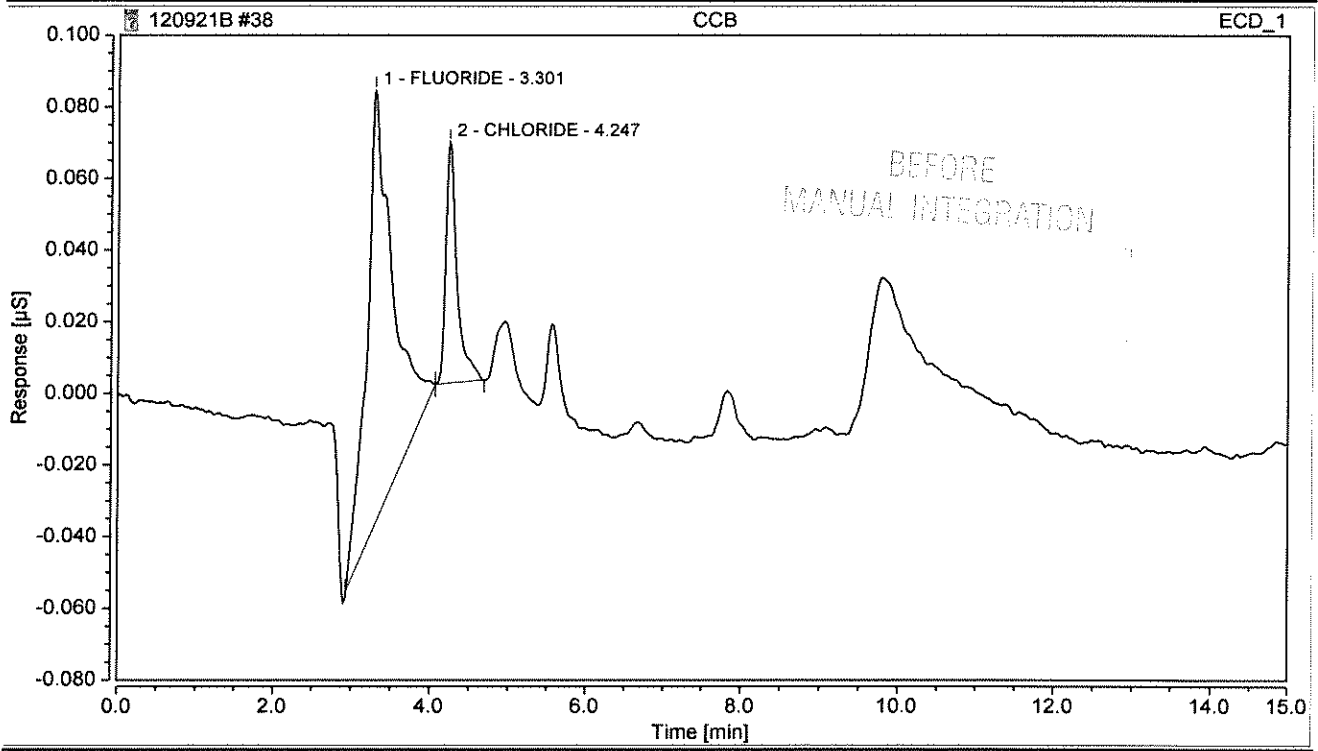
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	2.588	17.031	13.28	16.58	5.2912	5.8245
2	CHLORIDE	4.243	2.982	19.644	15.31	19.13	9.7735	-2.2655
3	NITRITE	4.997	2.623	14.315	13.46	13.94	3.9195	-2.0131
4	SULFATE	5.543	4.640	24.768	23.81	24.12	20.1347	0.6735
5	BROMIDE	6.657	2.616	12.292	13.43	11.97	18.9521	-5.2395
6	NITRATE	7.747	2.992	11.579	15.36	11.27	3.9006	-2.4840
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**18.440**	**99.630**	**94.65**	**97.01**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.98**
Vial Number:	**38**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 01:47**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

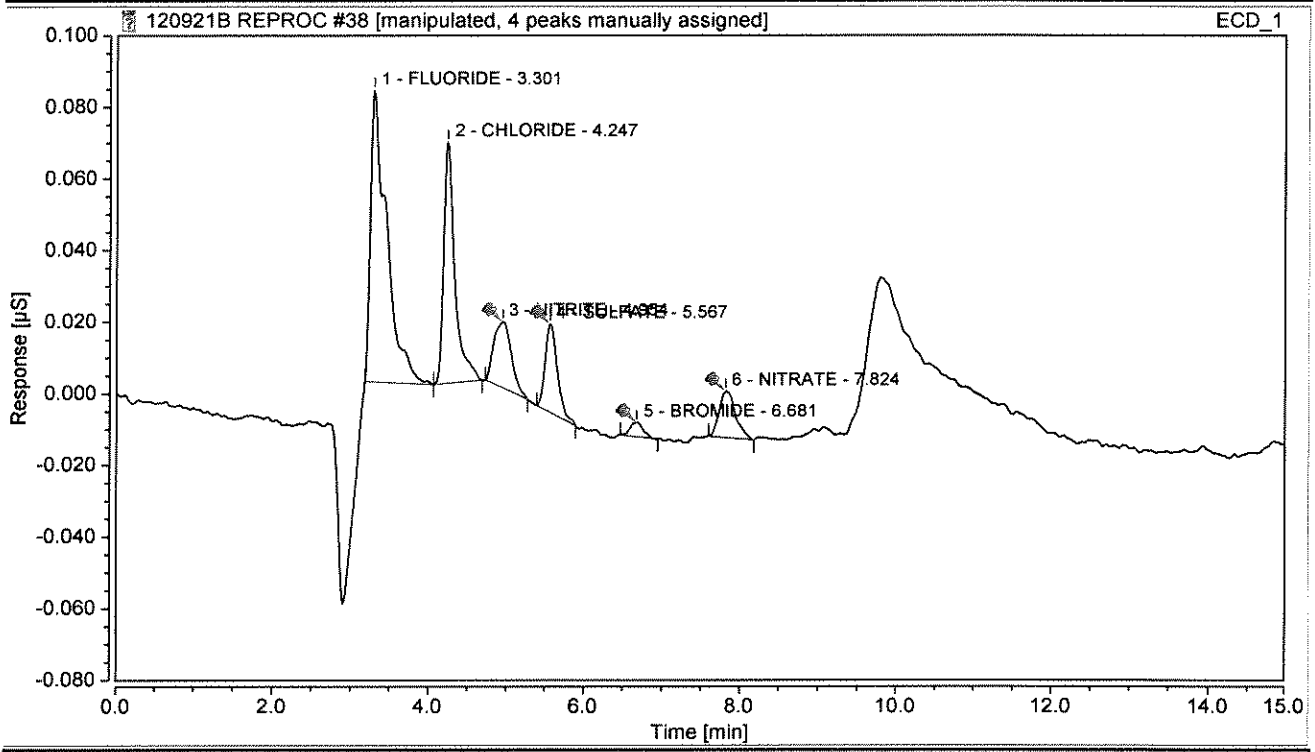
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.301	0.046	0.121	80.41	64.35	0.0937	n.a.
2	CHLORIDE	4.247	0.011	0.067	19.59	35.65	0.1315	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.057**	**0.189**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.98**
Vial Number:	**38**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 01:47**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

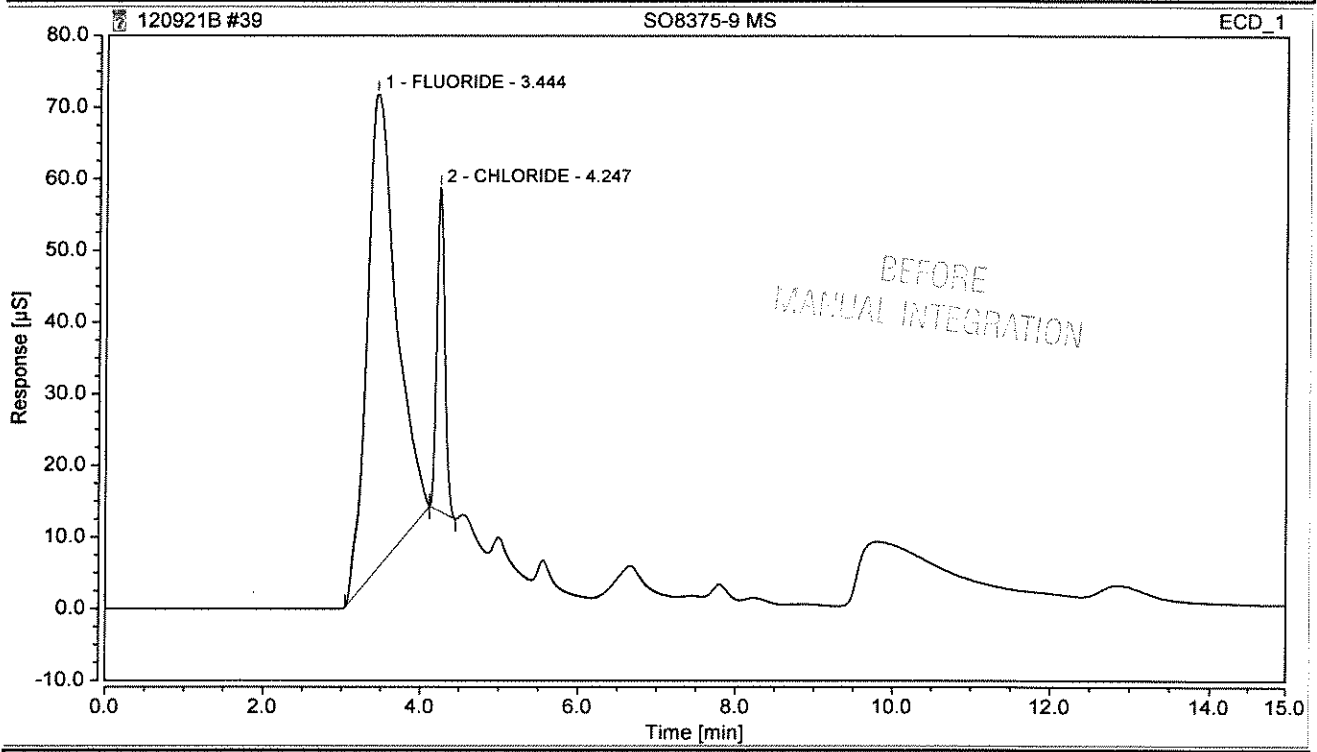
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.301	0.020	0.081	44.72	38.98	0.0404	n.a.
2	CHLORIDE	4.247	0.011	0.067	25.27	32.21	0.1315	n.a.
3	NITRITE	4.954	0.005	0.019	10.87	8.86	0.0072	n.a.
4	SULFATE	5.567	0.005	0.025	10.23	11.84	0.0196	n.a.
5	BROMIDE	6.681	0.001	0.004	1.73	1.88	0.0061	n.a.
6	NITRATE	7.824	0.003	0.013	7.18	6.22	0.0496	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.044**	**0.209**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-9 MS**	*Run Time (min):*	**14.98**
Vial Number:	**39**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 02:08**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

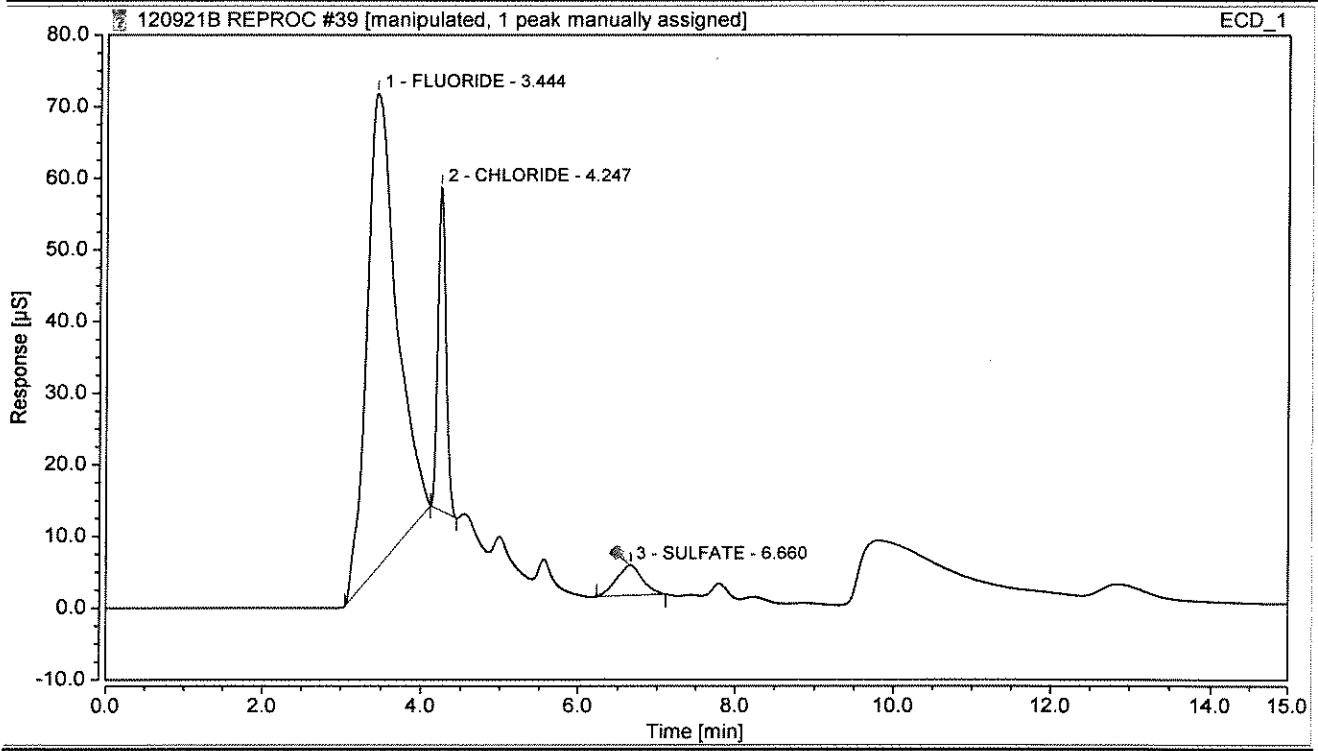
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.444	28.642	66.446	84.05	59.53	58.5646	n.a.
2	CHLORIDE	4.247	5.435	45.174	15.95	40.47	17.7321	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**34.076**	**111.620**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-9 MS**	*Run Time (min):*	**14.98**
Vial Number:	**39**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 02:08**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

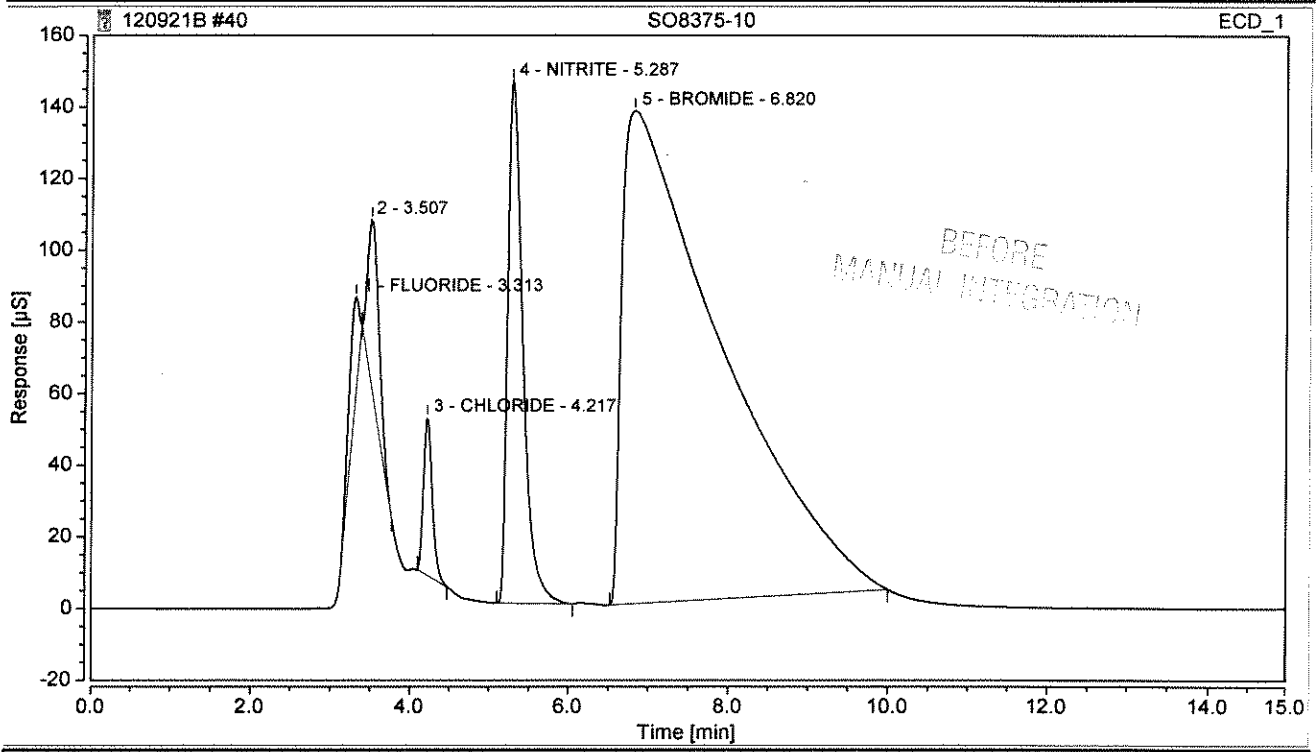
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.444	28.642	66.446	80.25	57.34	58.5646	n.a.
2	CHLORIDE	4.247	5.435	45.174	15.23	38.99	17.7321	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	SULFATE	6.660	1.614	4.256	4.52	3.67	7.0035	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**35.690**	**115.876**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-10**	*Run Time (min):*	**14.98**
Vial Number:	**40**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**10/Dec/21 02:28**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

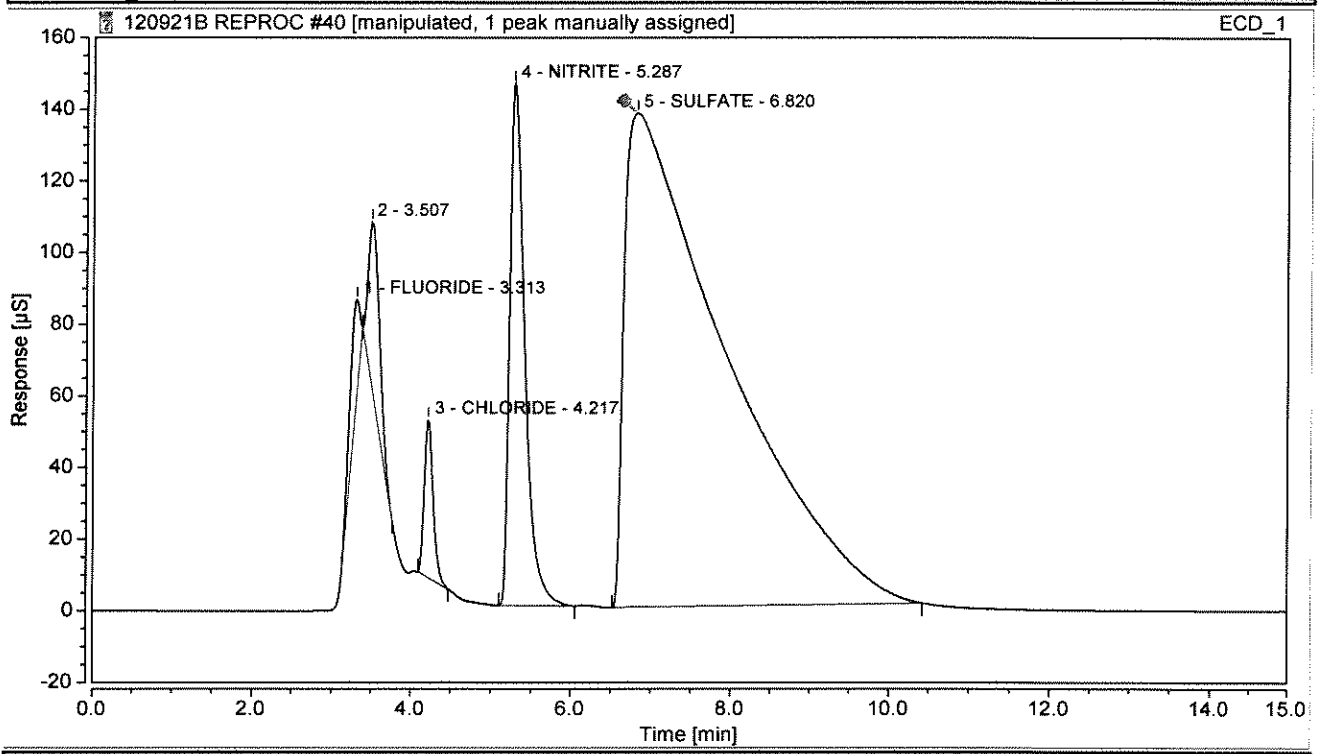
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.313	4.321	26.971	1.74	6.73	88.3482	n.a.
3	CHLORIDE	4.217	5.730	44.042	2.31	10.98	186.8988	n.a.
4	NITRITE	5.287	32.099	145.781	12.92	36.35	479.7282	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	BROMIDE	6.820	198.323	137.698	79.84	34.34	2123.0581	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**240.472**	**354.492**	**96.81**	**88.40**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-10**	*Run Time (min):*	**14.98**
Vial Number:	**40**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**10/Dec/21 02:28**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

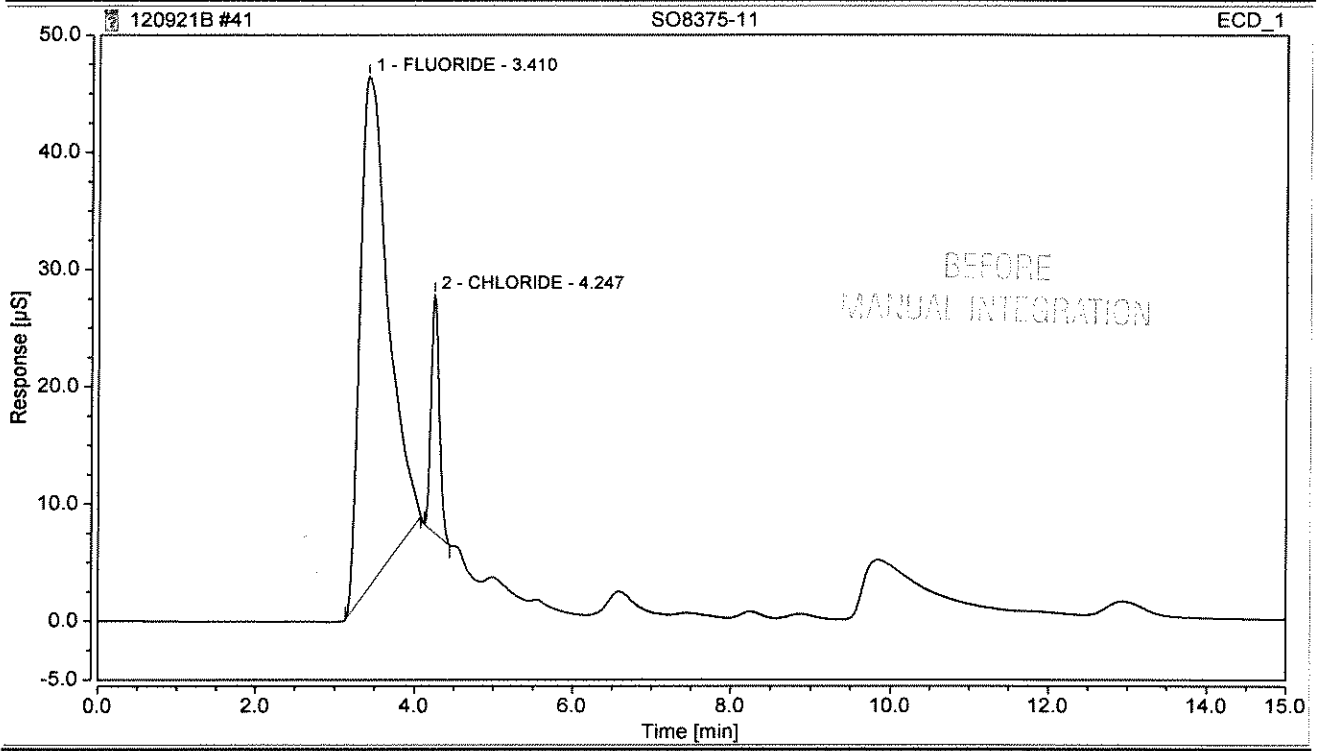
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.313	4.321	26.971	1.70	6.72	88.3482	n.a.
3	CHLORIDE	4.217	5.730	44.042	2.25	10.97	186.8988	n.a.
4	NITRITE	5.287	32.099	145.781	12.60	36.33	479.7282	n.a.
5	SULFATE	6.820	204.582	137.979	80.34	34.38	8878.4805	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**246.731**	**354.773**	**96.89**	**88.41**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-11**	*Run Time (min):*	**14.99**
Vial Number:	**41**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 02:49**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

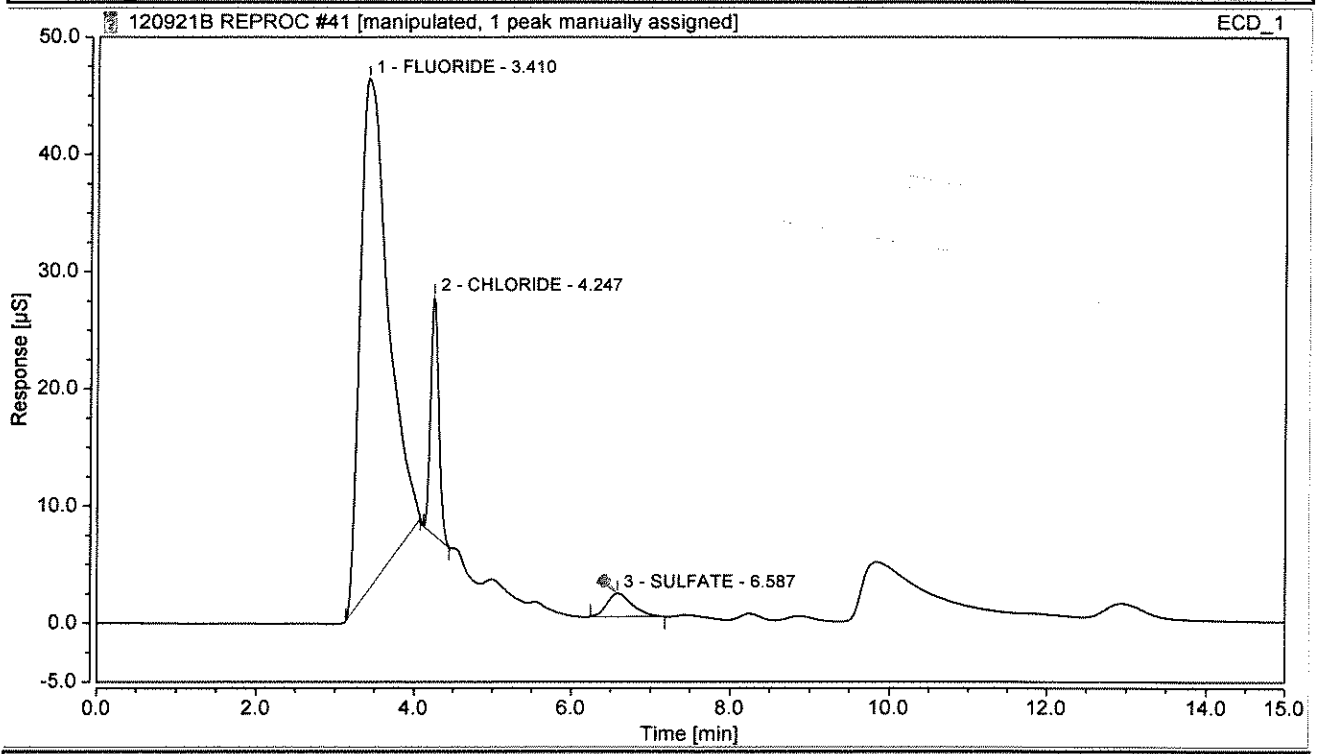
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.410	17.874	43.727	87.92	68.28	36.5473	n.a.
2	CHLORIDE	4.247	2.457	20.314	12.08	31.72	8.0682	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**20.331**	**64.041**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-11**	*Run Time (min):*	**14.99**
Vial Number:	**41**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 02:49**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

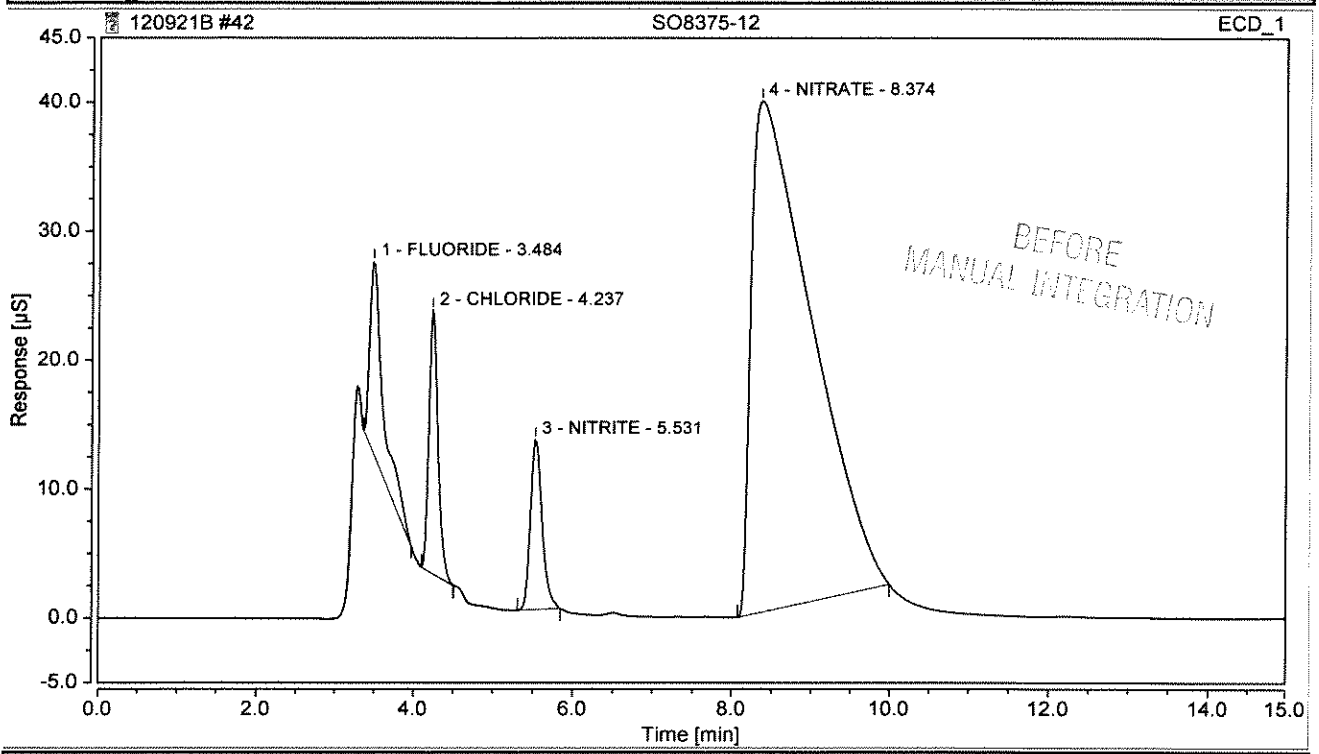
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.410	17.874	43.727	84.83	66.23	36.5473	n.a.
2	CHLORIDE	4.247	2.457	20.314	11.66	30.77	8.0682	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	SULFATE	6.587	0.739	1.987	3.51	3.01	3.2055	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**21.069**	**66.028**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-12**	*Run Time (min):*	**14.98**
Vial Number:	**42**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**10/Dec/21 03:10**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

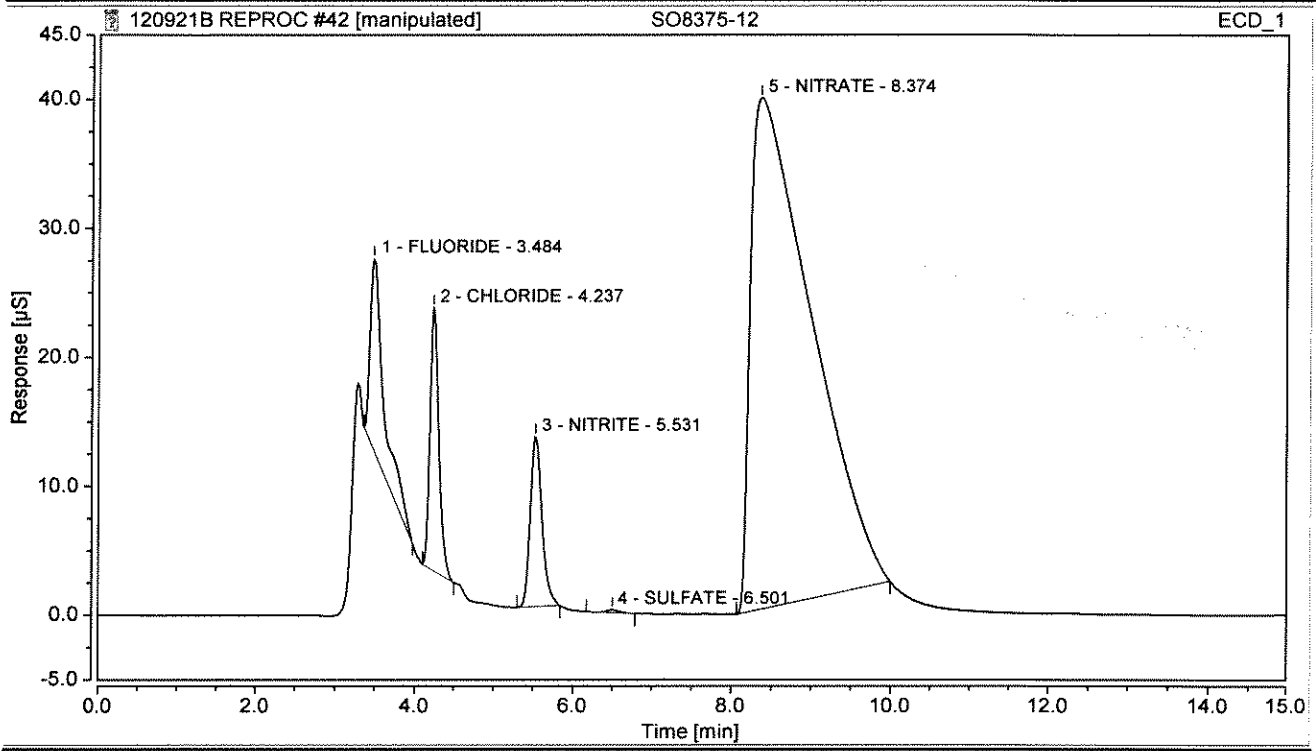
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.484	2.947	14.883	6.86	16.89	60.2589	n.a.
2	CHLORIDE	4.237	2.707	20.388	6.30	23.14	88.7955	n.a.
3	NITRITE	5.531	2.254	13.198	5.24	14.98	33.6820	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	NITRATE	8.374	35.065	39.651	81.60	45.00	452.2712	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**42.973**	**88.120**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-12**	*Run Time (min):*	**14.98**
Vial Number:	**42**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**10/Dec/21 03:10**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

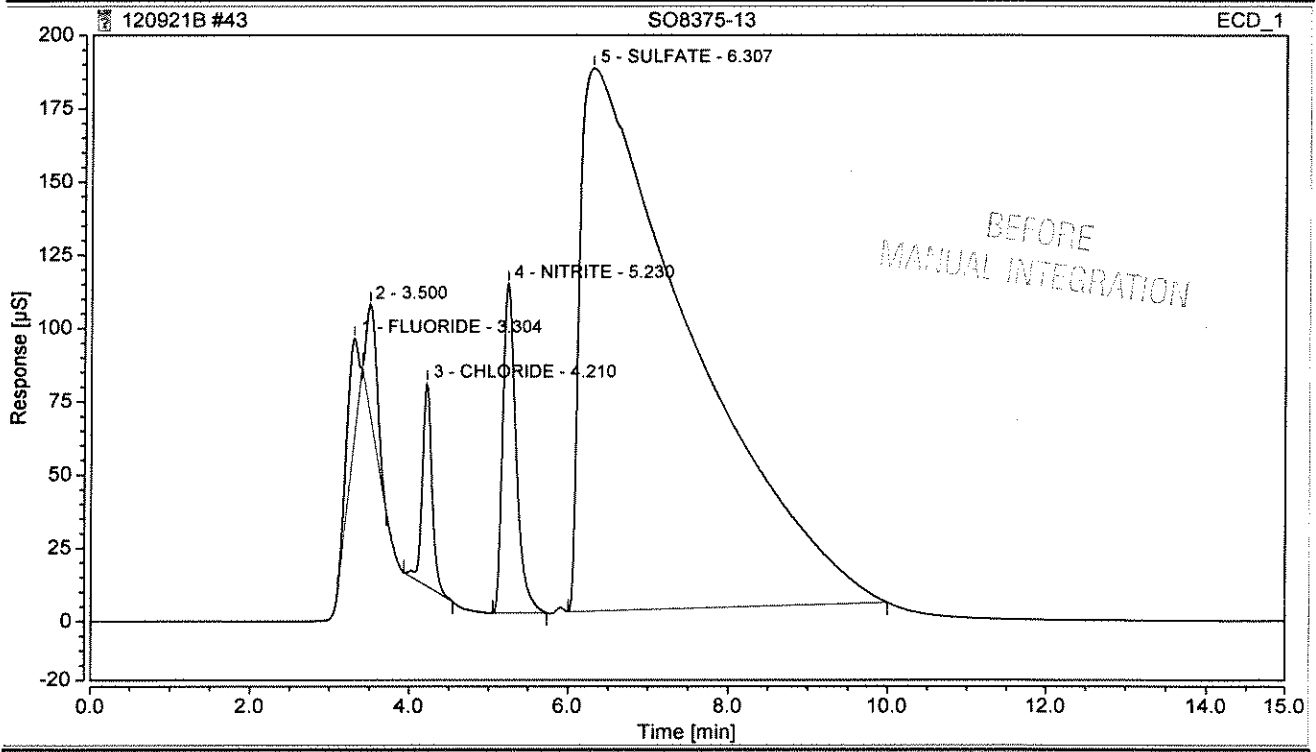
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.484	2.947	14.883	6.85	16.85	60.2589	n.a.
2	CHLORIDE	4.237	2.707	20.388	6.29	23.08	88.7955	n.a.
3	NITRITE	5.531	2.254	13.198	5.24	14.94	33.6820	n.a.
4	SULFATE	6.501	0.040	0.215	0.09	0.24	1.7174	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	NITRATE	8.374	35.065	39.651	81.52	44.89	452.2712	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**43.012**	**88.335**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-13**	*Run Time (min):*	**14.98**
Vial Number:	**43**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**10/Dec/21 03:31**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

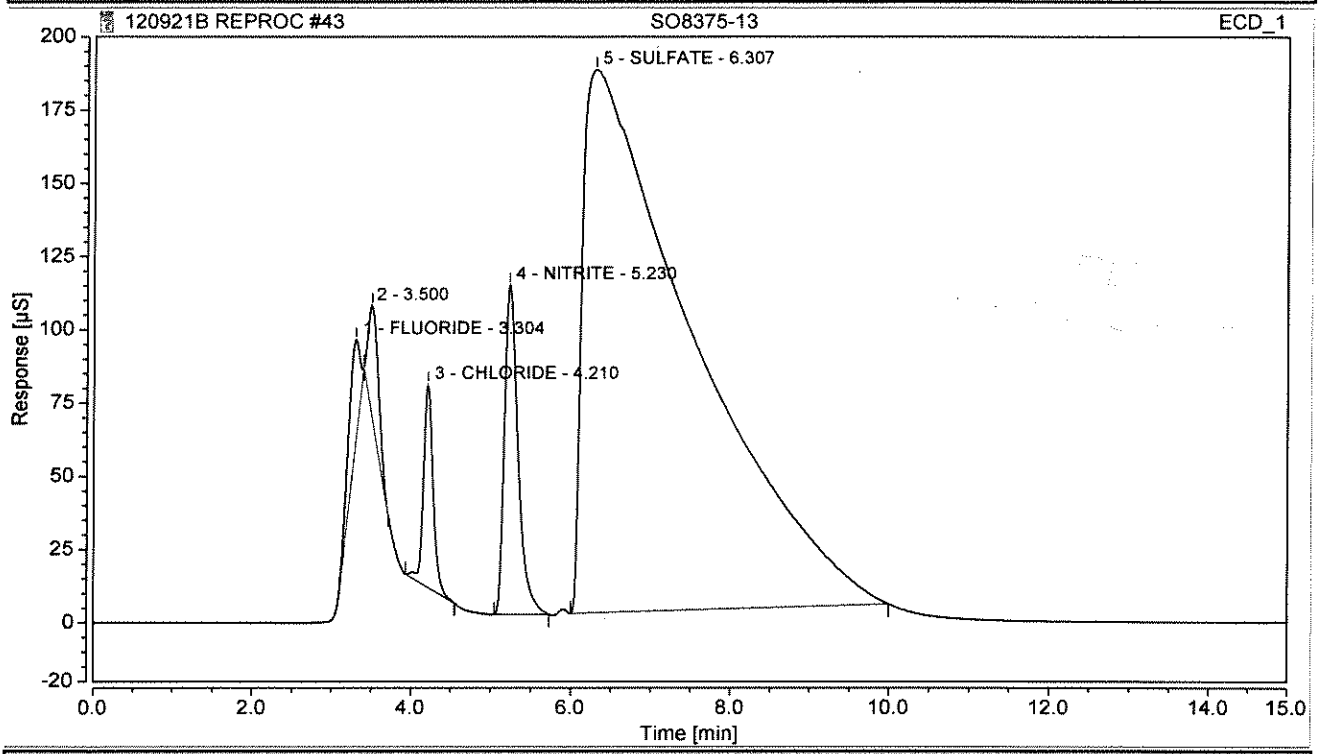
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.304	5.809	34.341	1.71	7.83	118.7733	n.a.
3	CHLORIDE	4.210	9.657	69.107	2.84	15.77	314.3449	n.a.
4	NITRITE	5.230	22.224	112.372	6.54	25.64	332.1522	n.a.
5	SULFATE	6.307	296.272	185.305	87.20	42.28	12857.6582	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**333.962**	**401.125**	**98.29**	**91.52**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-13**	*Run Time (min):*	**14.98**
Vial Number:	**43**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**10/Dec/21 03:31**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

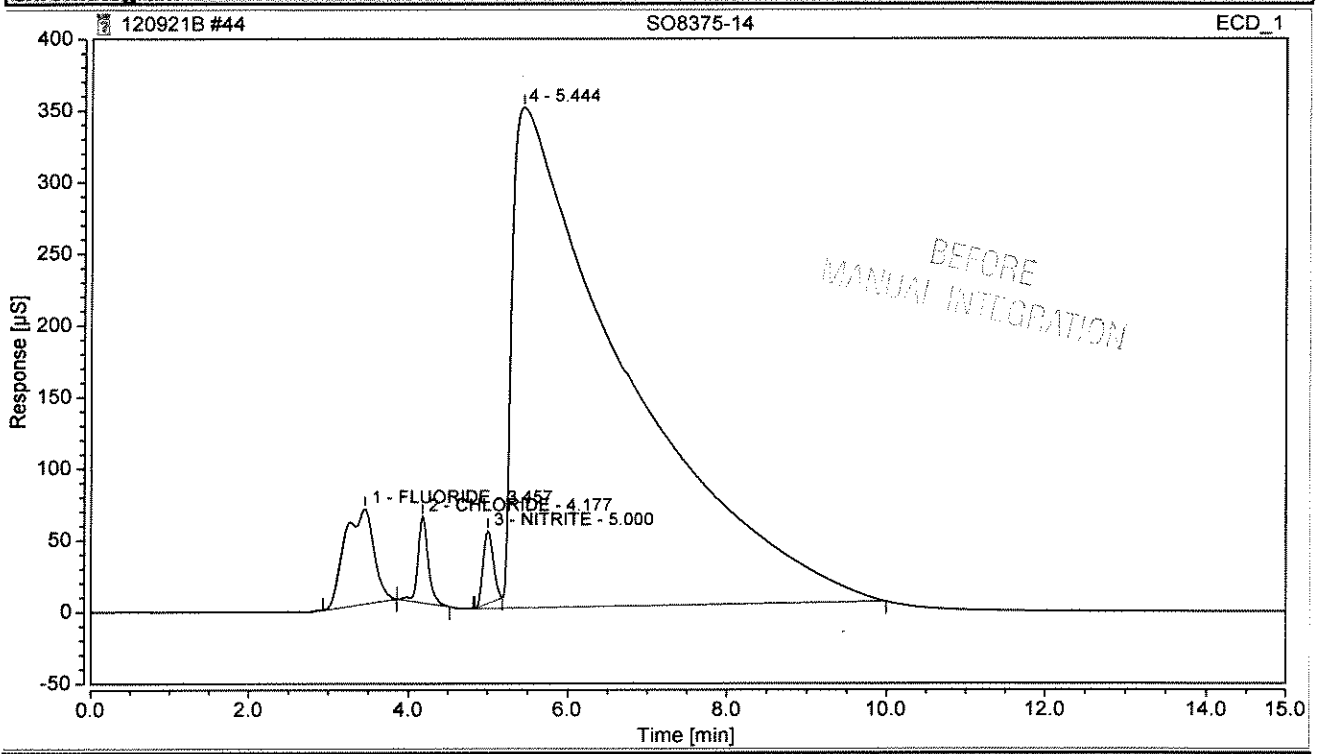
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.304	5.809	34.341	1.71	7.83	118.7733	n.a.
3	CHLORIDE	4.210	9.657	69.107	2.84	15.77	314.3449	n.a.
4	NITRITE	5.230	22.224	112.372	6.54	25.64	332.1522	n.a.
5	SULFATE	6.307	296.272	185.305	87.20	42.28	12857.6582	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**333.962**	**401.125**	**98.29**	**91.52**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-14**	*Run Time (min):*	**14.98**
Vial Number:	**44**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**10/Dec/21 03:52**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

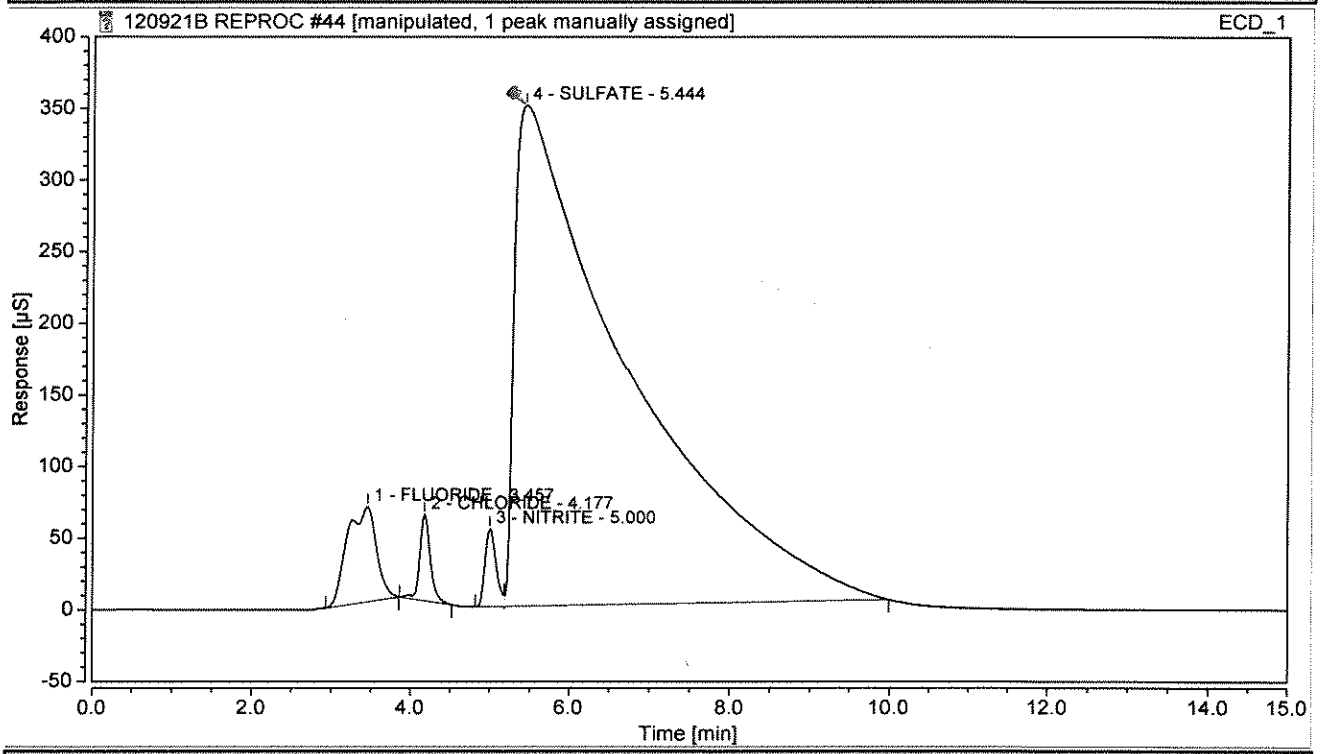
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.457	28.303	66.446	4.55	12.62	578.7289	n.a.
2	CHLORIDE	4.177	9.183	59.988	1.48	11.39	298.9656	n.a.
3	NITRITE	5.000	7.510	50.564	1.21	9.60	112.2334	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**44.996**	**176.998**	**7.24**	**33.62**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-14**	*Run Time (min):*	**14.98**
Vial Number:	**44**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**10/Dec/21 03:52**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

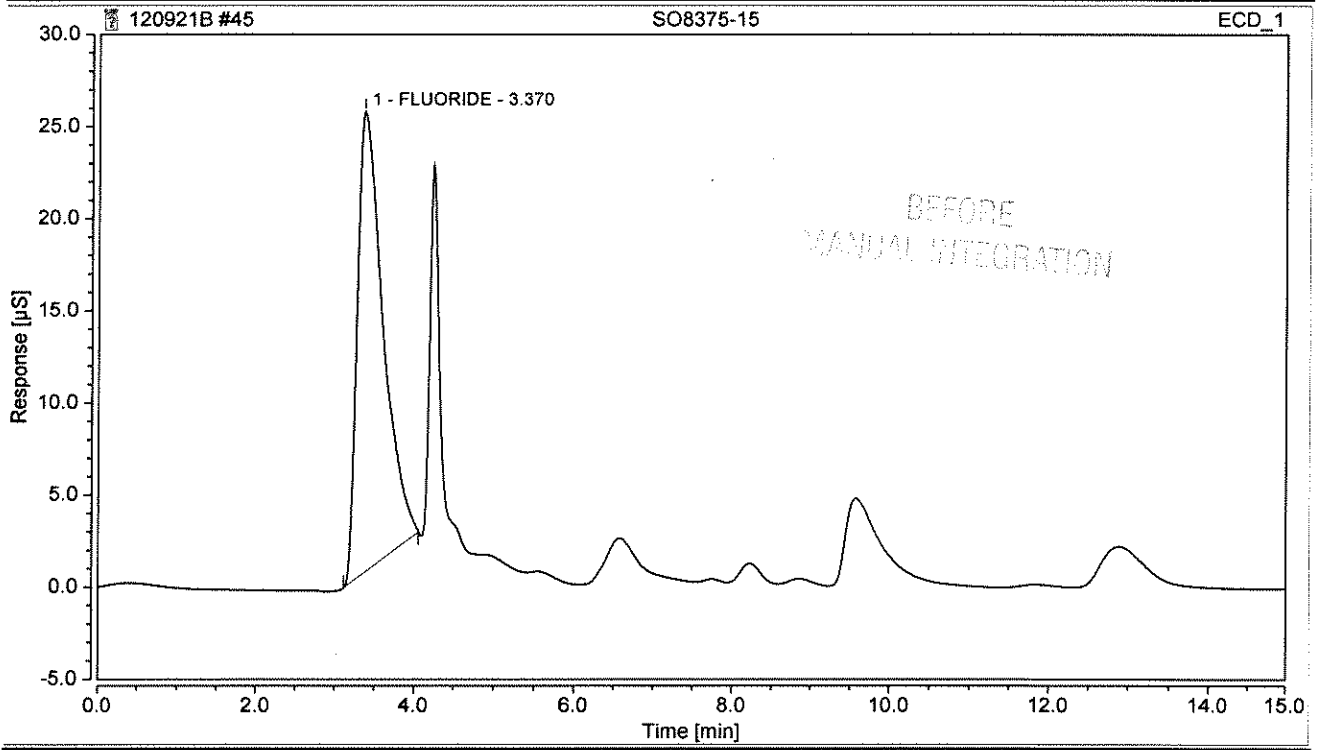
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.457	28.303	66.446	4.55	12.53	578.7289	n.a.
2	CHLORIDE	4.177	9.183	59.988	1.48	11.32	298.9656	n.a.
3	NITRITE	5.000	8.820	54.131	1.42	10.21	131.8205	n.a.
4	SULFATE	5.444	575.187	349.523	92.55	65.94	24962.0499	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**621.493**	**530.089**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-15**	*Run Time (min):*	**14.98**
Vial Number:	**45**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 04:12**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

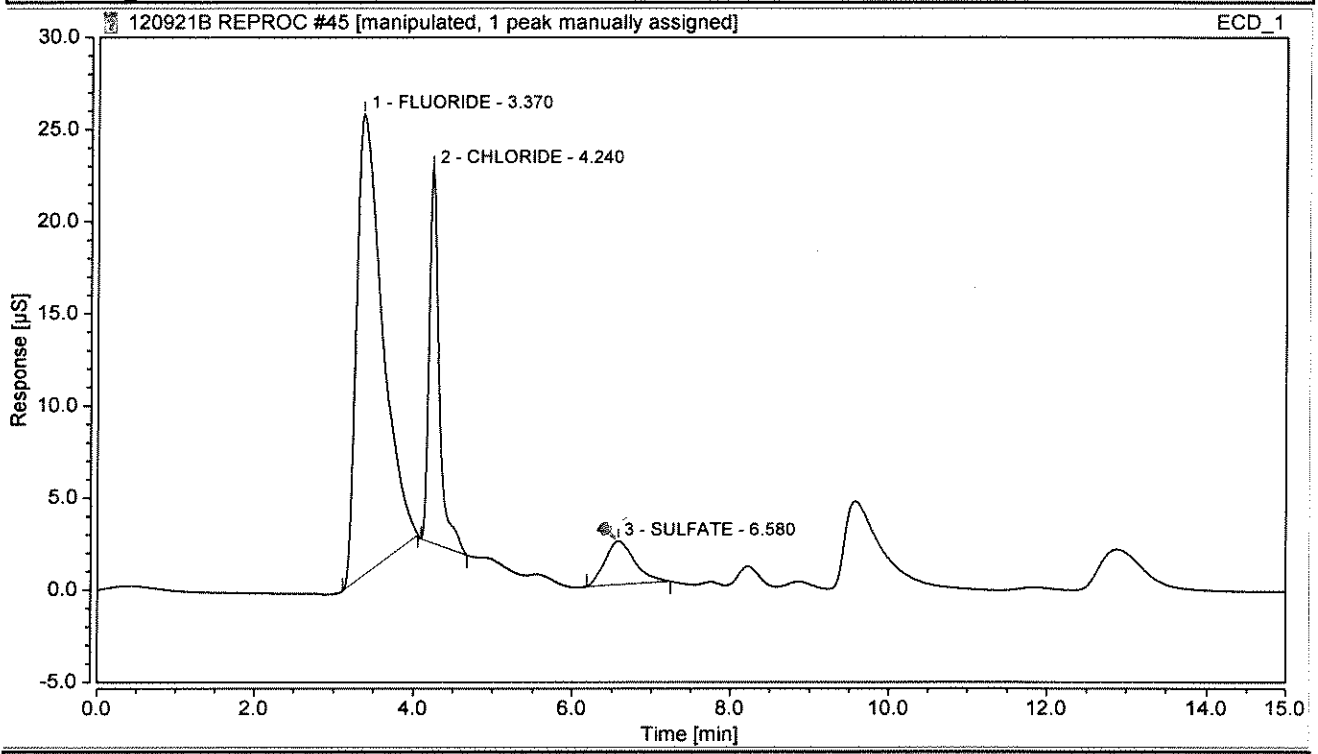
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.370	9.382	25.052	100.00	100.00	19.1836	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**9.382**	**25.052**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-15**	*Run Time (min):*	**14.98**
Vial Number:	**45**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 04:12**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

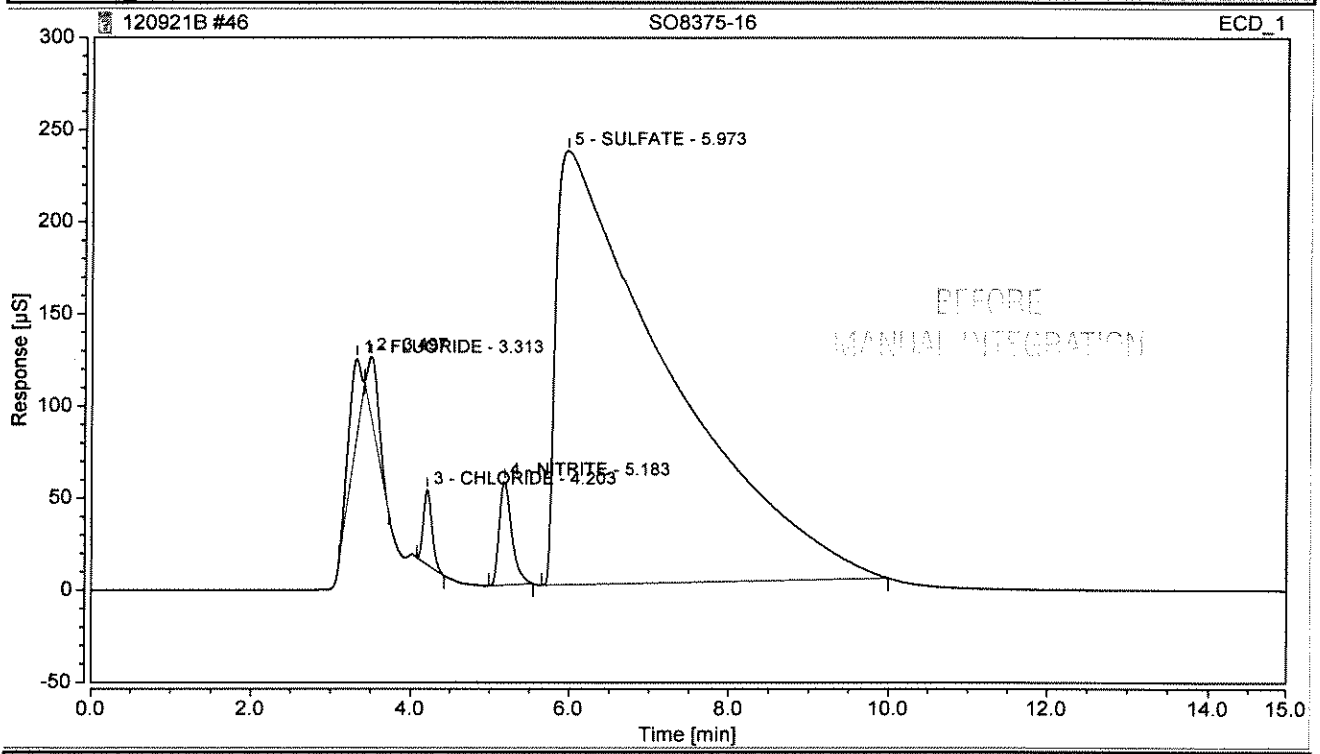
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.370	9.382	25.052	69.93	52.47	19.1836	n.a.
2	CHLORIDE	4.240	2.996	20.331	22.33	42.58	9.8175	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	SULFATE	6.580	1.039	2.365	7.74	4.95	4.5095	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**13.417**	**47.749**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-16**	*Run Time (min):*	**14.98**
Vial Number:	**46**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**10/Dec/21 04:33**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

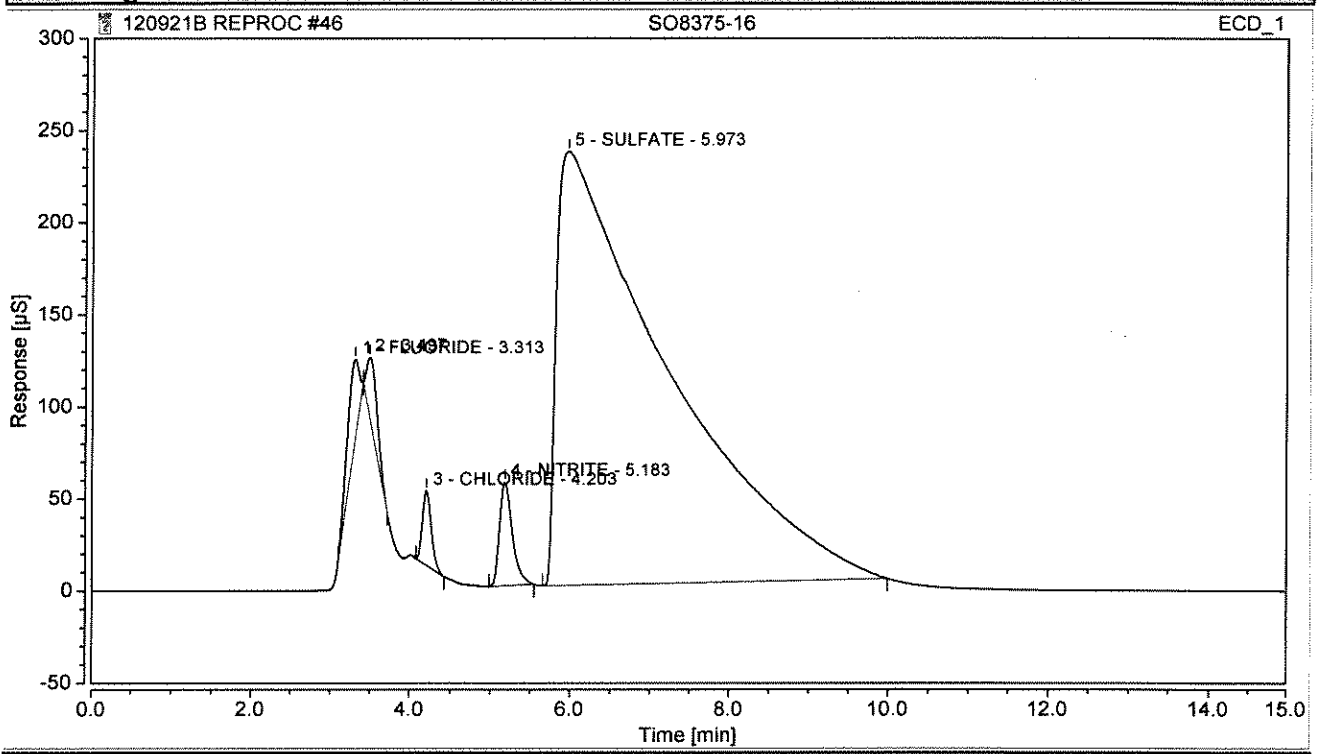
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.313	7.979	43.343	1.95	10.60	163.1511	n.a.
3	CHLORIDE	4.203	5.145	40.298	1.26	9.85	167.9254	n.a.
4	NITRITE	5.183	10.454	56.496	2.55	13.81	156.2423	n.a.
5	SULFATE	5.973	380.663	235.565	92.93	57.58	16520.0902	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**404.242**	**375.703**	**98.69**	**91.84**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-16**	*Run Time (min):*	**14.98**
Vial Number:	**46**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**10/Dec/21 04:33**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

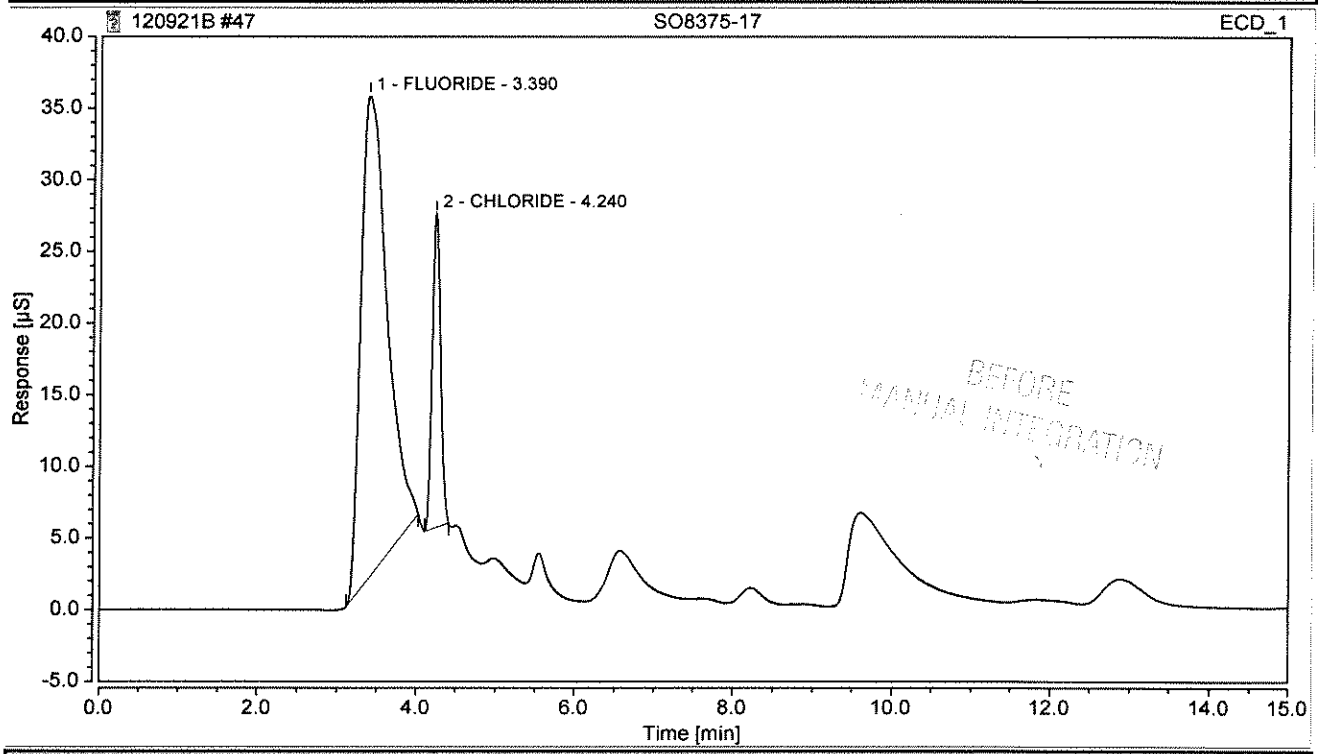
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.313	7.979	43.343	1.95	10.60	163.1511	n.a.
3	CHLORIDE	4.203	5.145	40.298	1.26	9.85	167.9254	n.a.
4	NITRITE	5.183	10.454	56.496	2.55	13.81	156.2423	n.a.
5	SULFATE	5.973	380.663	235.565	92.93	57.58	16520.0902	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**404.242**	**375.703**	**98.69**	**91.84**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-17**	*Run Time (min):*	**14.99**
Vial Number:	**47**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 04:54**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

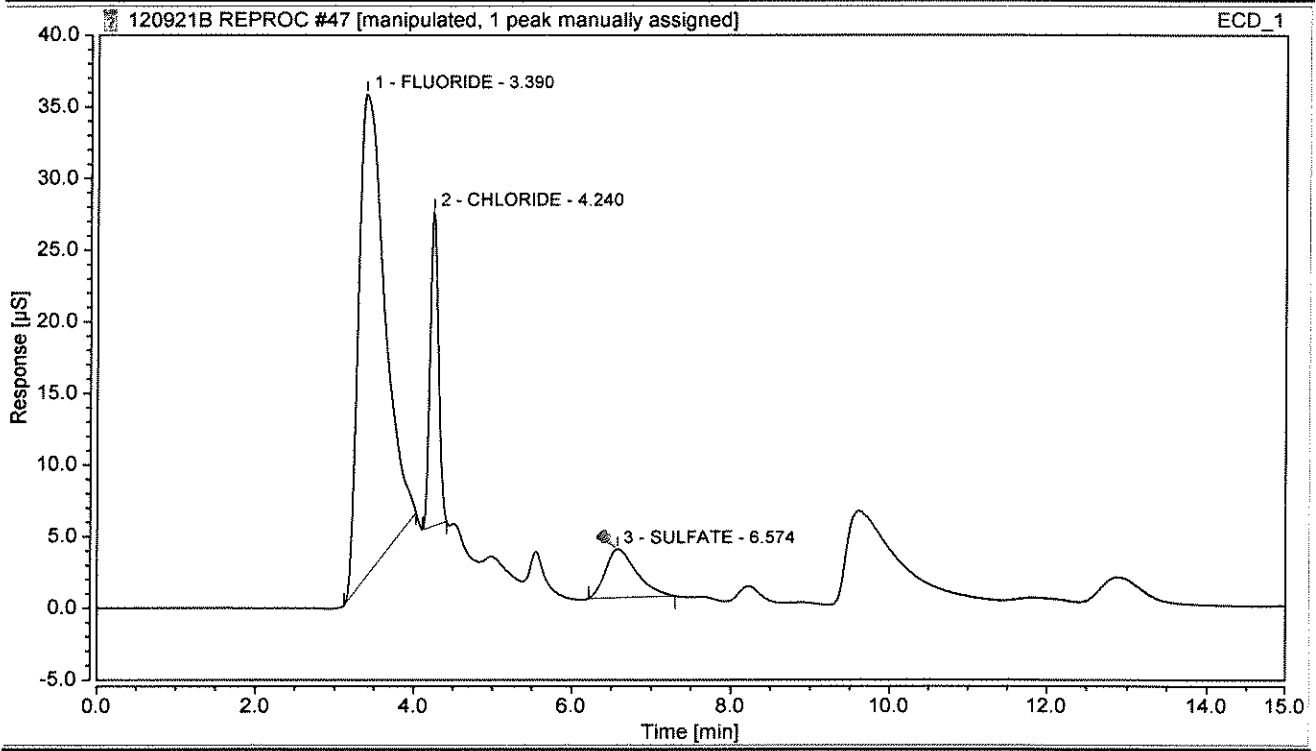
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.390	12.872	33.748	82.76	60.58	26.3191	n.a.
2	CHLORIDE	4.240	2.682	21.960	17.24	39.42	8.7995	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**15.554**	**55.708**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-17**	*Run Time (min):*	**14.99**
Vial Number:	**47**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 04:54**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

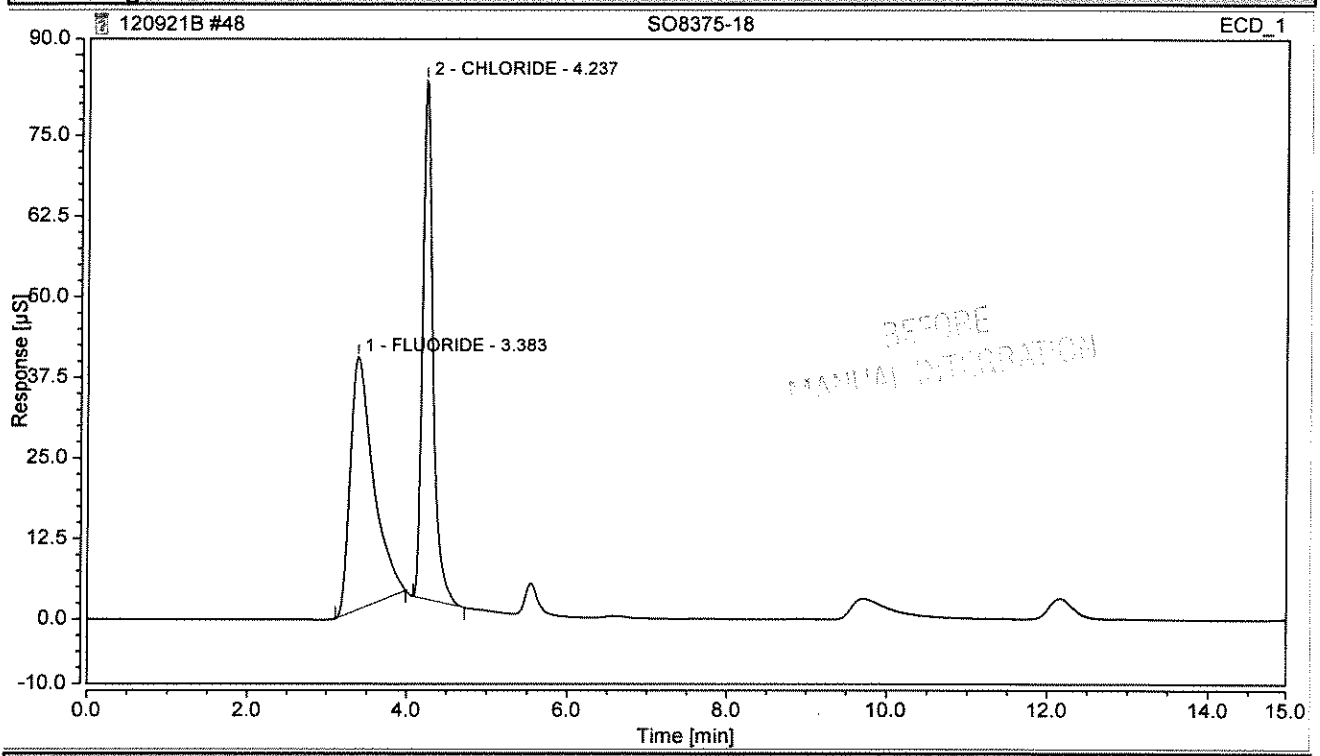
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.390	12.872	33.748	75.35	57.10	26.3191	n.a.
2	CHLORIDE	4.240	2.682	21.960	15.70	37.16	8.7995	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	SULFATE	6.574	1.528	3.391	8.94	5.74	6.6291	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**17.081**	**59.099**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-18**	*Run Time (min):*	**14.98**
Vial Number:	**48**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 05:15**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

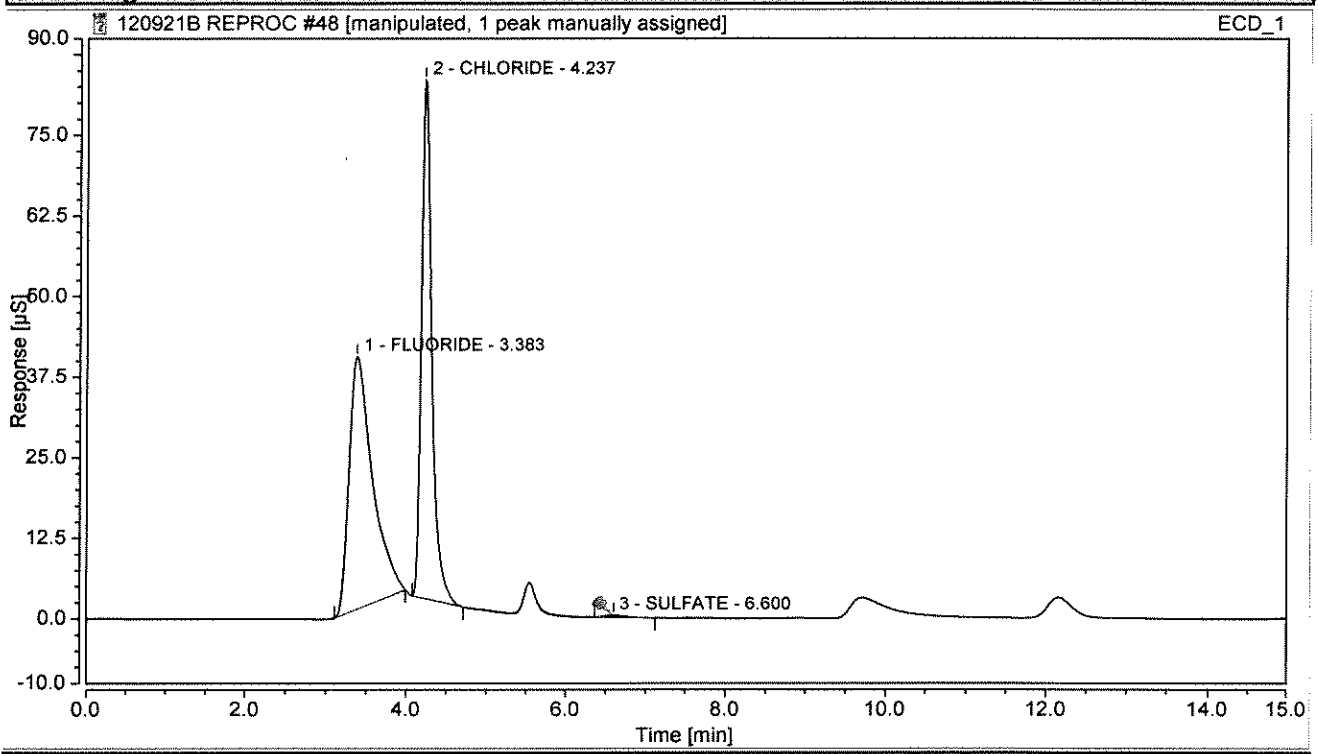
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.383	13.203	39.215	52.63	32.76	26.9972	n.a.
2	CHLORIDE	4.237	11.884	80.479	47.37	67.24	38.6626	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**25.088**	**119.694**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8375-18**	*Run Time (min):*	**14.98**
Vial Number:	**48**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 05:15**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

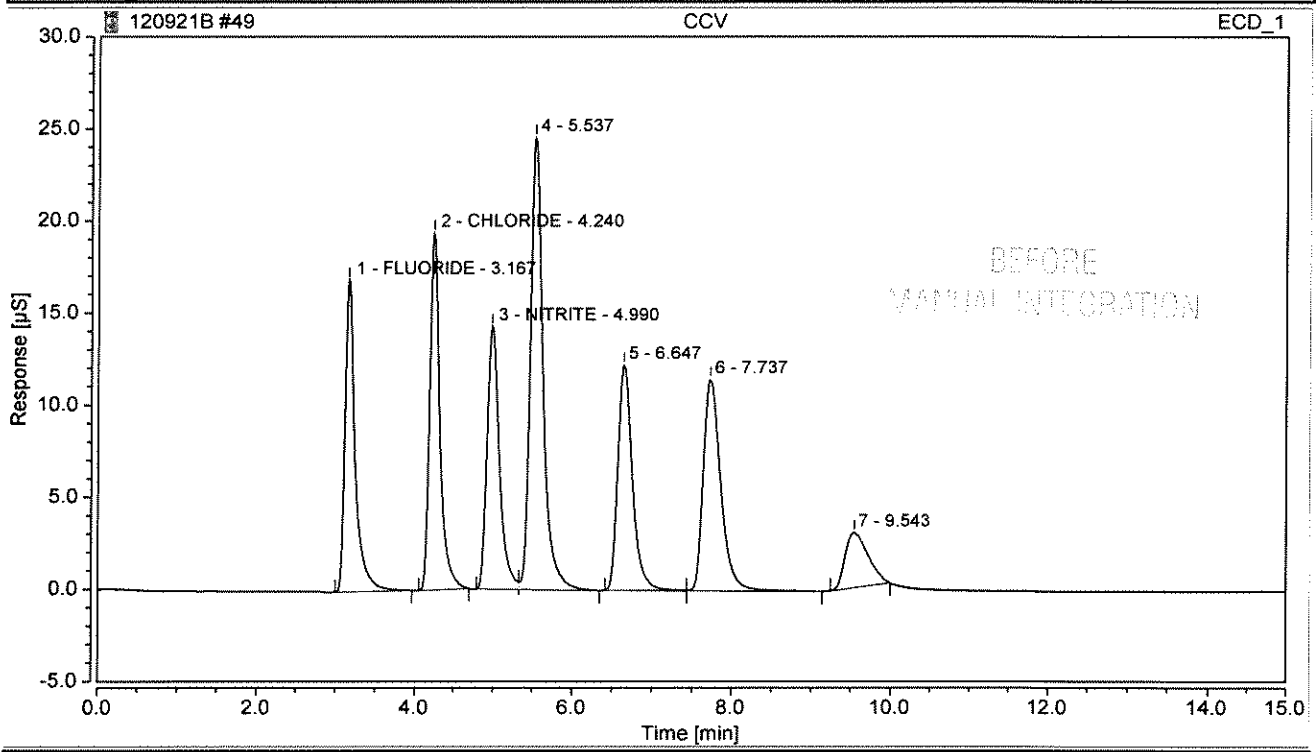
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.383	13.203	39.215	52.45	32.68	26.9972	n.a.
2	CHLORIDE	4.237	11.884	80.479	47.21	67.07	38.6626	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	SULFATE	6.600	0.087	0.307	0.34	0.26	0.3761	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**25.174**	**120.001**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.99**
Vial Number:	**49**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 05:35**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

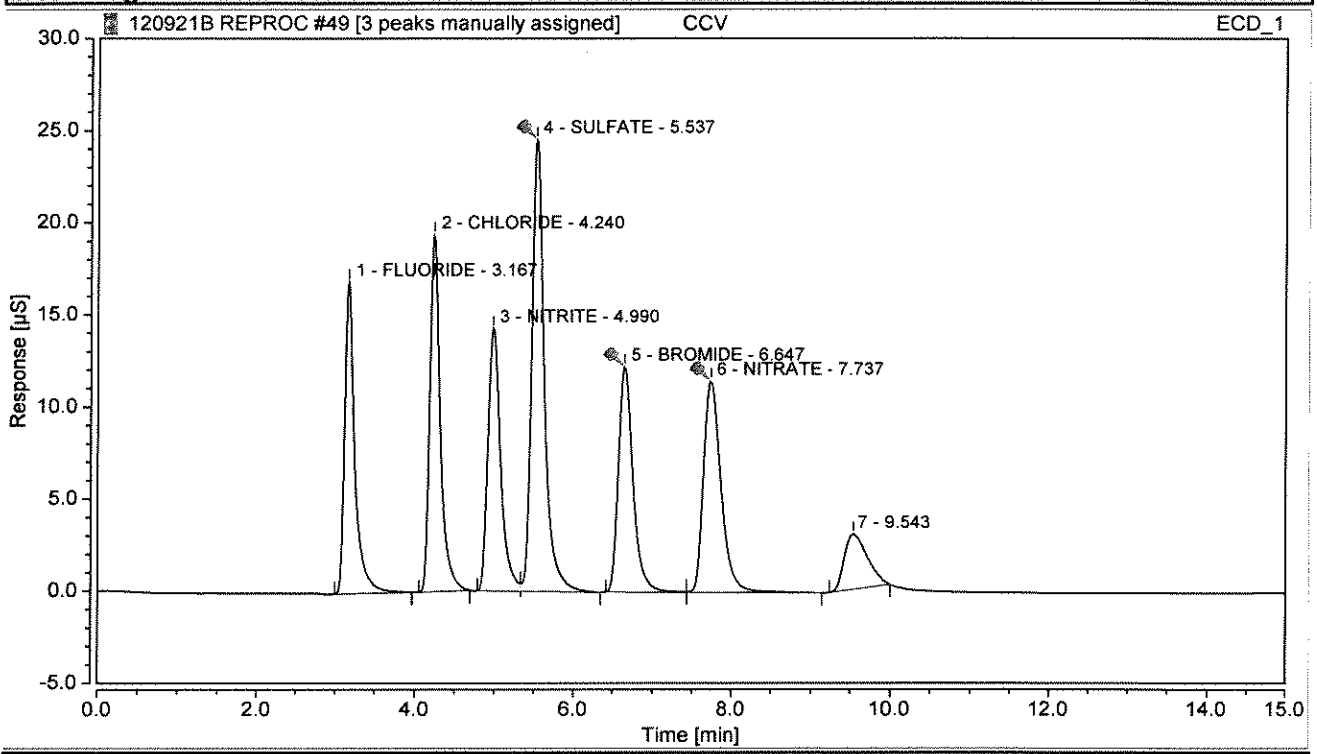
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	2.529	16.933	13.11	16.61	5.1720	3.4394
2	CHLORIDE	4.240	2.953	19.406	15.31	19.03	9.6779	-3.2212
3	NITRITE	4.990	2.616	14.275	13.56	14.00	3.9099	-2.2526
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.098**	**50.614**	**41.99**	**49.65**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.99**
Vial Number:	**49**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 05:35**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

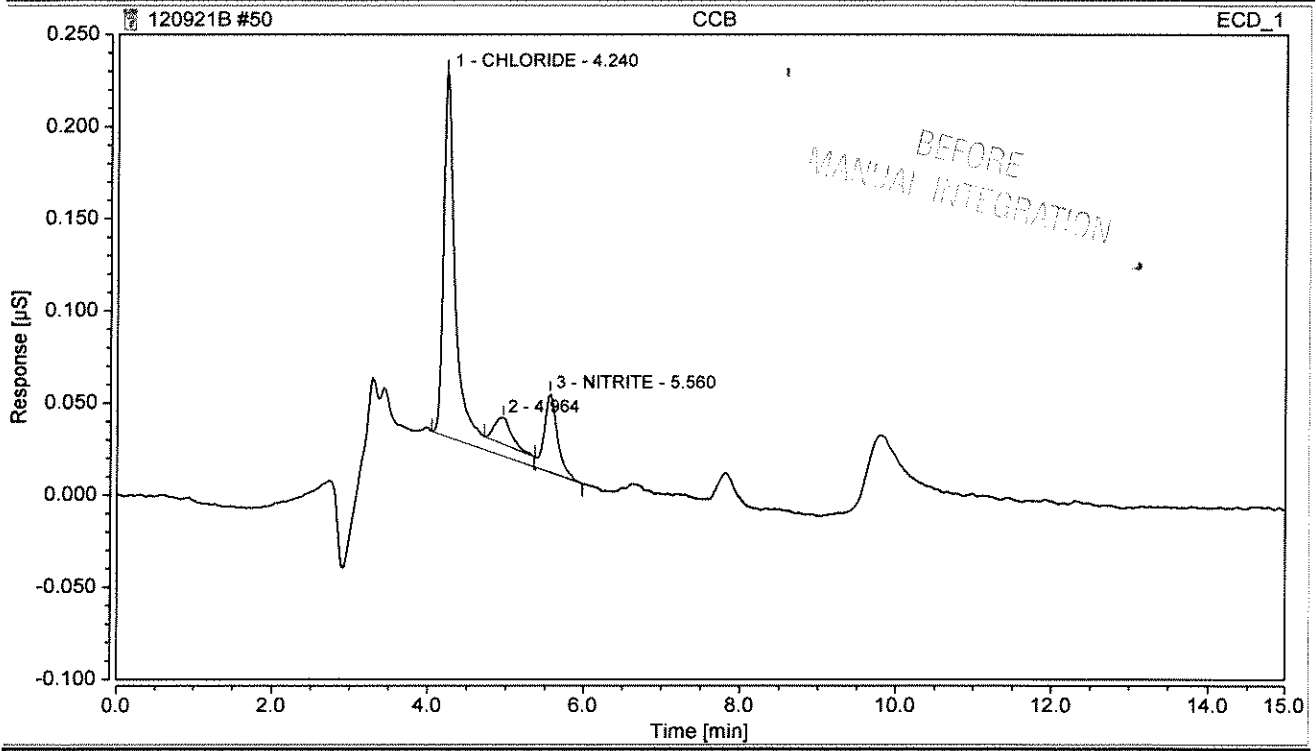
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	2.529	16.933	13.11	16.61	5.1720	3.4394
2	CHLORIDE	4.240	2.953	19.406	15.31	19.03	9.6779	-3.2212
3	NITRITE	4.990	2.616	14.275	13.56	14.00	3.9099	-2.2526
4	SULFATE	5.537	4.594	24.573	23.82	24.10	19.9377	-0.3113
5	BROMIDE	6.647	2.625	12.257	13.61	12.02	18.8981	-5.5094
6	NITRATE	7.737	2.962	11.502	15.36	11.28	3.8620	-3.4499
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**18.279**	**98.947**	**94.77**	**97.05**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.98**
Vial Number:	**50**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 05:56**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

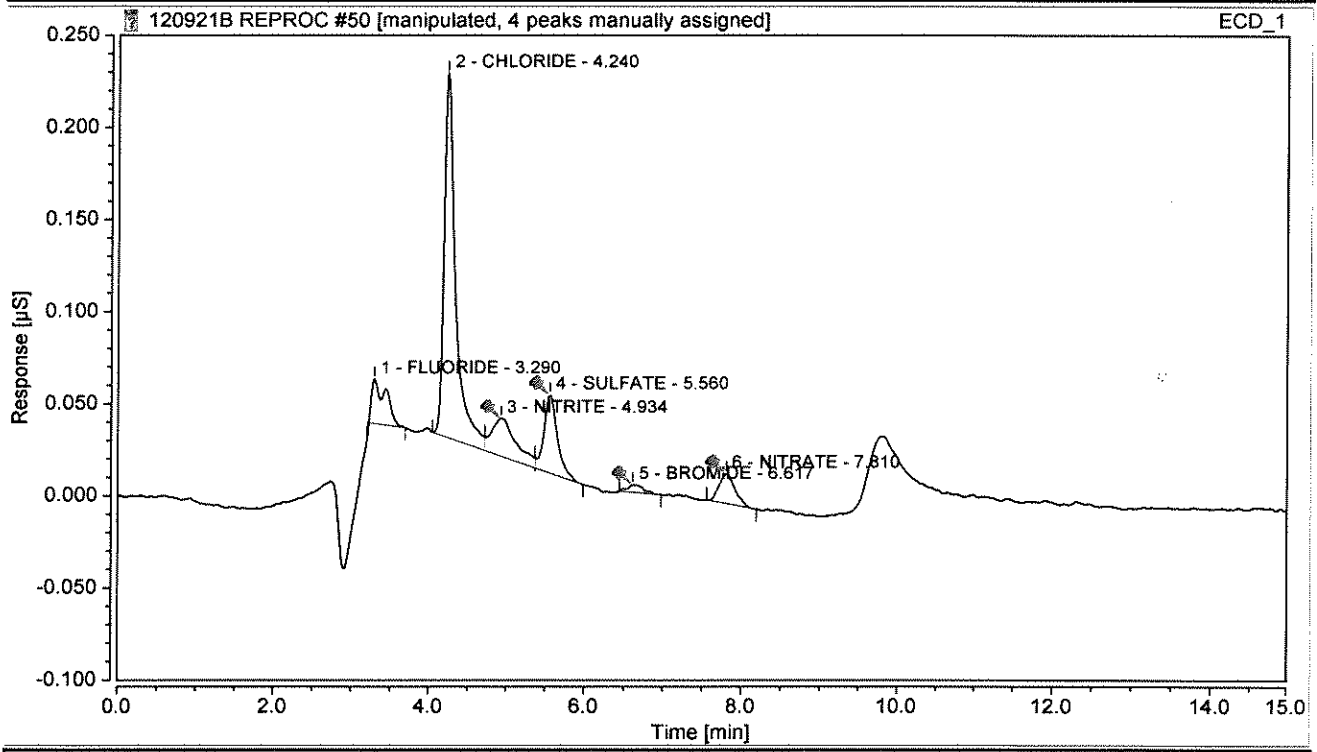
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	CHLORIDE	4.240	0.038	0.198	76.07	77.78	0.2196	n.a.
3	NITRITE	5.560	0.008	0.042	16.87	16.67	0.0127	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.047**	**0.240**	**92.94**	**94.44**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.98**
Vial Number:	**50**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**10/Dec/21 05:56**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.290	0.005	0.024	8.44	7.89	0.0104	n.a.
2	CHLORIDE	4.240	0.034	0.198	56.89	64.91	0.2064	n.a.
3	NITRITE	4.934	0.008	0.020	12.66	6.71	0.0114	n.a.
4	SULFATE	5.560	0.008	0.042	14.12	13.91	0.0369	n.a.
5	BROMIDE	6.617	0.001	0.004	1.62	1.31	0.0062	n.a.
6	NITRATE	7.810	0.004	0.016	6.27	5.28	0.0504	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.060**	**0.305**	**100.00**	**100.00**		

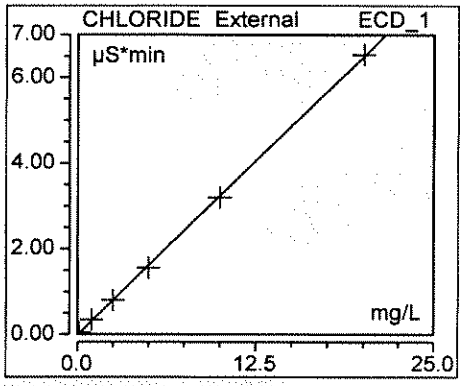
Calibration Batch Report

Sequence:	**092321A CAL REPROC**	*Injection Volume:*	**200.00**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Operator:*	**Katahdin Analytical**
Inj. Date / Time:	**23-Sep-2021 / 18:59**	*Run Time:*	**20.983833**

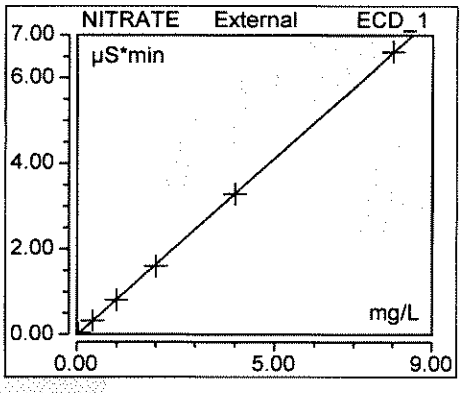
Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
FLUORIDE	Area	Lin	6.000	0.000	0.526	0.000	99.7217
CHLORIDE	Area	in, WithOffse	7.000	-0.008	0.325	0.000	99.9739
NITRITE	Area	Lin	6.000	0.000	0.695	0.000	99.8794
SULFATE	Area	Lin	7.000	0.000	0.242	0.000	99.9905
BROMIDE	Height	Lin	6.000	0.000	0.734	0.000	99.9675
NITRATE	Area	in, WithOffse	7.000	-0.012	0.826	0.000	99.9923
		AVERAGE:		-0.0034	0.5579	0.0000	99.9209

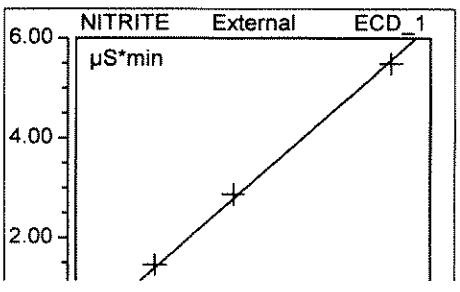
Injection Name **CHLORIDE**	Ret.Time min CHLORIDE	Area µS*min CHLORIDE	Height µS CHLORIDE	Amount mg/L CHLORIDE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	4.401	0.0156	0.078	0.074
CAL 2	4.401	0.0312	0.215	0.121
CAL 3	4.401	0.2808	2.062	0.889
CAL 4	4.401	0.6837	5.193	2.127
CAL 5	4.404	1.4839	10.609	4.586
CAL 6	4.404	3.0407	21.657	9.371
CAL 7	4.401	6.1530	43.400	18.937
Average	4.401			
Rel. Std. Dev.	0.037 %			



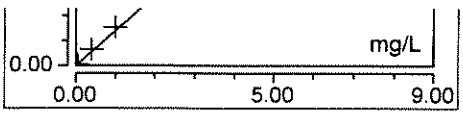
Injection Name **NITRATE**	Ret.Time min NITRATE	Area µS*min NITRATE	Height µS NITRATE	Amount mg/L NITRATE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	8.441	0.0098	0.041	0.026
CAL 2	8.441	0.0269	0.115	0.047
CAL 3	8.427	0.2681	1.183	0.339
CAL 4	8.407	0.7105	3.094	0.875
CAL 5	8.387	1.4726	6.184	1.797
CAL 6	8.347	3.0493	12.212	3.706
CAL 7	8.284	6.1983	22.774	7.517
Average	8.391			
Rel. Std. Dev.	0.686 %			



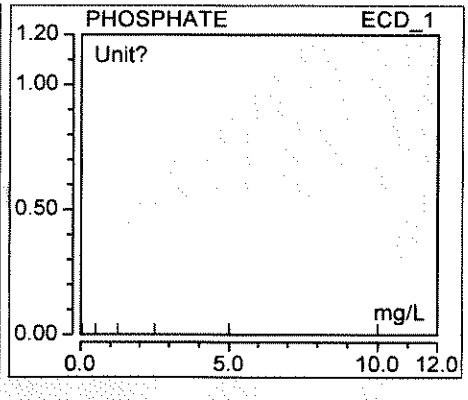
Injection Name **NITRITE**	Ret.Time min NITRITE	Area µS*min NITRITE	Height µS NITRITE	Amount mg/L NITRITE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	5.274	0.0042	0.016	0.006
CAL 2	5.244	0.0213	0.138	0.031
CAL 3	5.244	0.2700	1.683	0.389
CAL 4	5.244	0.6827	4.228	0.982



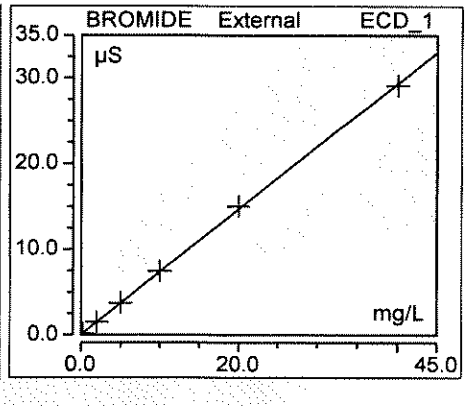
CAL 5	5.247	1.3843	8.194	1.992
CAL 6	5.244	2.7760	15.721	3.995
CAL 7	5.244	5.2897	28.130	7.612
Average	5.249			
Rel. Std. Dev.	0.213 %			



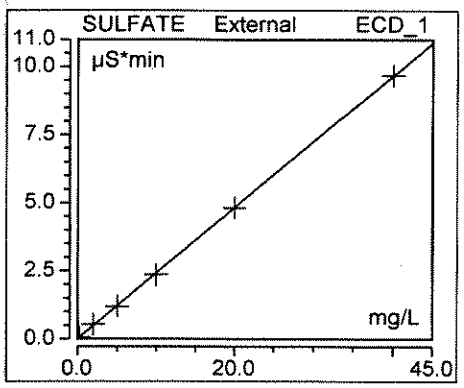
Injection Name **PHOSPHATE**	Ret.Time min PHOSPHATE	Area µS*min PHOSPHATE	Height µS PHOSPHATE	Amount mg/L PHOSPHATE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.
CAL 2	n.a.	n.a.	n.a.	n.a.
CAL 3	n.a.	n.a.	n.a.	n.a.
CAL 4	n.a.	n.a.	n.a.	n.a.
CAL 5	n.a.	n.a.	n.a.	n.a.
CAL 6	n.a.	n.a.	n.a.	n.a.
CAL 7	n.a.	n.a.	n.a.	n.a.
Average	#DIV/0!			
Rel. Std. Dev.	#DIV/0!			



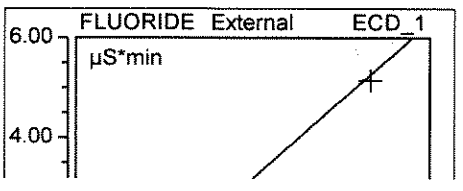
Injection Name **BROMIDE**	Ret.Time min BROMIDE	Area µS*min BROMIDE	Height µS BROMIDE	Amount mg/L BROMIDE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.
CAL 2	7.137	0.0193	0.096	0.131
CAL 3	7.131	0.2367	1.212	1.652
CAL 4	7.124	0.6180	3.192	4.351
CAL 5	7.117	1.2932	6.476	8.828
CAL 6	7.097	2.7022	13.229	18.033
CAL 7	7.064	5.4957	25.828	35.207
Average	7.112			
Rel. Std. Dev.	0.382 %			



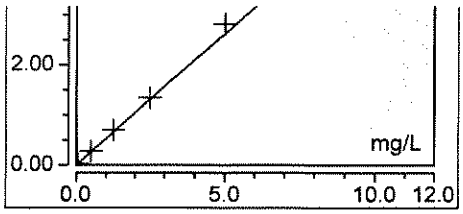
Injection Name **SULFATE**	Ret.Time min SULFATE	Area µS*min SULFATE	Height µS SULFATE	Amount mg/L SULFATE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	6.054	0.0063	0.034	0.026
CAL 2	6.051	0.0385	0.208	0.159
CAL 3	6.051	0.4233	2.338	1.752
CAL 4	6.044	1.0846	5.927	4.489
CAL 5	6.041	2.2261	11.891	9.213
CAL 6	6.021	4.5870	24.056	18.985
CAL 7	5.997	9.2576	46.984	38.316
Average	6.037			
Rel. Std. Dev.	0.343 %			



Injection Name **FLUORIDE**	Ret.Time min FLUORIDE	Area µS*min FLUORIDE	Height µS FLUORIDE	Amount mg/L FLUORIDE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.



CAL 2	3.201	0.0248	0.156	0.047
CAL 3	3.201	0.2394	1.943	0.455
CAL 4	3.201	0.5957	4.903	1.133
CAL 5	3.204	1.1610	9.488	2.208
CAL 6	3.211	2.5167	18.776	4.787
CAL 7	3.217	4.8725	34.514	9.268
Average	3.206			
Rel. Std. Dev.	0.216 %			



Anion Summary Report

No. CHLORIDE	Name CHLORIDE	Time min CHLORIDE ECD_1	Area µS*min CHLORIDE ECD_1	Rel.Area % CHLORIDE ECD_1	Height µS CHLORIDE ECD_1	Rel.Height % CHLORIDE ECD_1	Amount mg/L CHLORIDE ECD_1
1	CAL 1	4.401	0.0156	38.29	0.08	39.91	0.0736
2	CAL 2	4.401	0.0312	19.25	0.22	23.17	0.1214
3	CAL 3	4.401	0.2808	16.34	2.06	19.79	0.8886
4	CAL 4	4.401	0.6837	15.63	5.19	19.57	2.1270
5	CAL 5	4.404	1.4839	16.45	10.61	20.08	4.5863
6	CAL 6	4.404	3.0407	16.28	21.66	20.50	9.3712
7	CAL 7	4.401	6.1530	16.51	43.40	21.52	18.9369
	Sum:	30.810	11.689	138.752	83.214	164.542	36.105
	Average:	4.401	1.670	19.822	11.888	23.506	5.158
	Rel.Std.Dev:	0.037 %	134.658 %	41.499 %	133.323 %	31.231 %	133.990 %

No. NITRATE	Name NITRATE	Time min NITRATE ECD_1	Area µS*min NITRATE ECD_1	Rel.Area % NITRATE ECD_1	Height µS NITRATE ECD_1	Rel.Height % NITRATE ECD_1	Amount mg/L NITRATE ECD_1
1	CAL 1	8.441	0.0098	24.01	0.04	21.28	0.0263
2	CAL 2	8.441	0.0269	16.60	0.12	12.40	0.0470
3	CAL 3	8.427	0.2681	15.60	1.18	11.35	0.3390
4	CAL 4	8.407	0.7105	16.24	3.09	11.66	0.8745
5	CAL 5	8.387	1.4726	16.32	6.18	11.70	1.7970
6	CAL 6	8.347	3.0493	16.33	12.21	11.56	3.7055
7	CAL 7	8.284	6.1983	16.63	22.77	11.30	7.5171
	Sum:	58.734	11.735	121.735	45.603	91.244	14.307
	Average:	8.391	1.676	17.391	6.515	13.035	2.044
	Rel.Std.Dev:	0.686 %	135.120 %	16.894 %	128.414 %	28.020 %	134.161 %

No. NITRITE	Name NITRITE	Time min NITRITE ECD_1	Area µS*min NITRITE ECD_1	Rel.Area % NITRITE ECD_1	Height µS NITRITE ECD_1	Rel.Height % NITRITE ECD_1	Amount mg/L NITRITE ECD_1
1	CAL 1	5.274	0.0042	10.24	0.02	8.13	0.0060
2	CAL 2	5.244	0.0213	13.18	0.14	14.86	0.0307
3	CAL 3	5.244	0.2700	15.71	1.68	16.15	0.3886
4	CAL 4	5.244	0.6827	15.60	4.23	15.93	0.9824
5	CAL 5	5.247	1.3843	15.35	8.19	15.51	1.9921
6	CAL 6	5.244	2.7760	14.87	15.72	14.88	3.9949
7	CAL 7	5.244	5.2897	14.19	28.13	13.95	7.6122
	Sum:	36.740	10.428	99.147	58.110	99.413	15.007
	Average:	5.249	1.490	14.164	8.301	14.202	2.144
	Rel.Std.Dev:	0.213 %	130.298 %	13.733 %	124.791 %	19.572 %	130.298 %

No. PHOSPHATE	Name PHOSPHATE	Time min PHOSPHATE ECD_1	Area µS*min PHOSPHATE ECD_1	Rel.Area % PHOSPHATE ECD_1	Height µS PHOSPHATE ECD_1	Rel.Height % PHOSPHATE ECD_1	Amount mg/L PHOSPHATE ECD_1
1	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	CAL 3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	CAL 4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	CAL 5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

6	CAL 6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	CAL 7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Sum:	0.000	0.000	0.000	0.000	0.000	0.000
	Average:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Rel.Std.Dev:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

No. BROMIDE	Name BROMIDE	Time min BROMIDE ECD_1	Area µS*min BROMIDE ECD_1	Rel.Area % BROMIDE ECD_1	Height µS BROMIDE ECD_1	Rel.Height % BROMIDE ECD_1	Amount mg/L BROMIDE ECD_1
1	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 2	7.137	0.0193	11.90	0.10	10.36	0.1310
3	CAL 3	7.131	0.2367	13.77	1.21	11.63	1.6524
4	CAL 4	7.124	0.6180	14.13	3.19	12.03	4.3510
5	CAL 5	7.117	1.2932	14.34	6.48	12.26	8.8276
6	CAL 6	7.097	2.7022	14.47	13.23	12.52	18.0330
7	CAL 7	7.064	5.4957	14.75	25.83	12.81	35.2074
	Sum:	42.670	10.365	83.356	50.033	71.603	68.202
	Average:	7.112	1.728	13.893	8.339	11.934	11.367
	Rel.Std.Dev:	0.382 %	120.620 %	7.405 %	117.311 %	7.306 %	117.311 %

No. SULFATE	Name SULFATE	Time min SULFATE ECD_1	Area µS*min SULFATE ECD_1	Rel.Area % SULFATE ECD_1	Height µS SULFATE ECD_1	Rel.Height % SULFATE ECD_1	Amount mg/L SULFATE ECD_1
1	CAL 1	6.054	0.0063	15.46	0.03	17.56	0.0261
2	CAL 2	6.051	0.0385	23.75	0.21	22.37	0.1591
3	CAL 3	6.051	0.4233	24.63	2.34	22.43	1.7519
4	CAL 4	6.044	1.0846	24.79	5.93	22.33	4.4891
5	CAL 5	6.041	2.2261	24.68	11.89	22.50	9.2134
6	CAL 6	6.021	4.5870	24.57	24.06	22.77	18.9850
7	CAL 7	5.997	9.2576	24.84	46.98	23.30	38.3161
	Sum:	42.257	17.623	162.722	91.438	153.270	72.941
	Average:	6.037	2.518	23.246	13.063	21.896	10.420
	Rel.Std.Dev:	0.343 %	134.392 %	14.850 %	131.629 %	8.863 %	134.392 %

No. FLUORIDE	Name FLUORIDE	Time min FLUORIDE ECD_1	Area µS*min FLUORIDE ECD_1	Rel.Area % FLUORIDE ECD_1	Height µS FLUORIDE ECD_1	Rel.Height % FLUORIDE ECD_1	Amount mg/L FLUORIDE ECD_1
1	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 2	3.201	0.0248	15.32	0.16	16.84	0.0472
3	CAL 3	3.201	0.2394	13.93	1.94	18.64	0.4554
4	CAL 4	3.201	0.5957	13.61	4.90	18.48	1.1330
5	CAL 5	3.204	1.1610	12.87	9.49	17.96	2.2082
6	CAL 6	3.211	2.5167	13.48	18.78	17.77	4.7868
7	CAL 7	3.217	4.8725	13.07	34.51	17.12	9.2676
	Sum:	19.233	9.410	82.295	69.780	106.808	17.898
	Average:	3.206	1.568	13.716	11.630	17.801	2.983
	Rel.Std.Dev:	0.216 %	117.838 %	6.377 %	112.114 %	4.031 %	117.838 %

SERES ENGINEERING & SERVICES, LLC

FORT DEVENS 2021 LTM

SO8914

Ms. Leslie Dimond
207-874-2400

KATAHDIN ANALYTICAL SERVICES
600 TECHNOLOGY WAY
SCARBOROUGH, ME 04074

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SAMPLE DATA PACKAGE

NARRATIVE
KATAHDIN ANALYTICAL SERVICES
SERES ENGINEERING & SERVICES, LLC
FORT DEVENS 2021 LTM
SO8914

Sample Receipt

The following samples were received on December 29, 2021 and were logged in under Katahdin Analytical Services work order number SO8914 for a hardcopy due date of January 19, 2022.

KATAHDIN Sample No.	SERES Sample Identification
SO8914-1	MW-21-3D-EVENT#4
SO8914-2	MW-21-3D-FF-EVENT#4
SO8914-3	AS-DUP-EVENT#4
SO8914-4	AS-DUP-FF-EVENT#4
SO8914-5	MW-21-3S-EVENT#4
SO8914-6	MW-21-3S-FF-EVENT#4
SO8914-7	SMH-10-06-EVENT#4
SO8914-8	SMH-10-06-FF-EVENT#4
SO8914-9	MW-21-4D-EVENT#4
SO8914-10	MW-21-4D-FF-EVENT#4
SO8914-11	MW-21-1S-EVENT#4
SO8914-12	MW-21-1S-FF-EVENT#4
SO8914-14	FILTER BLANK

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

We certify that the test results provided in this report are accredited under the laboratory's ISO/IEC 17025:2017 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation L2223.

Analytes which are reported but not listed on our ANAB scope of accreditation will be "^" flagged and the following language will be included in the case narrative for all DoD compliant work: "^" Indicates this analyte is not included on Katahdin Analytical Services DoD-ELAP Scope of Accreditation.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Heather Manz**. This narrative is an integral part of the Report of Analysis.

Reissue 3/2/2022

The report is being reissued to include results for calcium, magnesium, sodium and potassium on samples SO8914-1, 3, 5, 7, 9 and 11, correct the recoveries for the metals MS/MSD on sample SO8914-10 and correct the Wet Chemistry Blank Sample Summary Report.

Metals Analysis

The samples associated with Katahdin Work Order SO8914 were prepared and analyzed for metals in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015), Office of Solid Waste and Emergency Response, U.S. EPA.

Inductively-Coupled Plasma (ICP) Atomic Emission Spectroscopic Analysis

Aqueous-matrix Katahdin Sample Numbers SO8914-(1-9) were digested for ICP analysis on 01/04/22 (QC Batch PA04CW1) in accordance USEPA Method 3010A. Per client request, Katahdin Sample Numbers SO8914-(1, 2) were prepared with duplicate matrix-spiked aliquots.

Aqueous-matrix Katahdin Sample Numbers SO8914-(10, 11, 12, 14) were digested for ICP analysis on 01/05/22 (QC Batch PA05ICW1) in accordance USEPA Method 3010A. Katahdin Sample Number SO8914-10 was prepared with duplicate matrix-spiked aliquots.

ICP analyses of Katahdin Work Order SO8914 samples were performed using a Thermo iCAP 6500 ICP spectrometer in accordance with USEPA Method 6010C. All samples were analyzed within holding times and all applicable analytical run QC criteria were met.

During data review it was noted that the dissolved analyte concentrations in sample "MW-21-3D-EVENT#4" (Katahdin Sample Number SO8914-2) were higher than the total analyte concentrations (Katahdin Sample Number SO8914-1). Aliquots of the undigested samples were analyzed on 02/21/22 and verified these concentration levels.

Matrix QC Summary

The measured recoveries of calcium, iron, manganese, and sodium in one or both of the matrix-spiked aliquots of Katahdin Sample Number SO8914-1 are outside project acceptance criteria. For calcium, iron, and manganese, this may be attributable to the native concentration in the sample being much greater than the spike added.

The measured recoveries of arsenic and iron in both of the matrix-spiked aliquots of Katahdin Sample Number SO8914-2 are outside project acceptance criteria. This may be attributable to the native concentration in the sample being much greater than the spike added.

The measured recovery of iron in one of the matrix-spiked aliquots of Katahdin Sample Number SO8914-10 is outside project acceptance criteria. This may be attributable to the native concentration in the sample being much greater than the spike added.

The measured recoveries of iron in the post-digestion matrix spiked aliquots off Katahdin Sample Numbers SO8914-(1, 2) are outside project acceptance criteria. This may be attributable to the native sample concentrations being much greater than the spike amount added.

Reporting of Metals Results

Per client request, analytical results for client samples on Form I, preparation blanks on Form IIIP, and matrix QC samples on Forms VA, VD, and VI have been reported using the laboratory's Limits of Quantitation (LOQ). All results were evaluated down to the laboratory's method detection limits (MDLs). Results that are less than the MDL are flagged with "U" in the C-qualifier column, and the LOQ is listed in the concentration column. Results that fall between the MDL and the LOQ are flagged with "J" in the C-qualifier column, and the measured concentration appears in the concentration column. These LOQs and MDLs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results on Forms VB and IX for client samples, analysis QC samples (serial dilutions and post-digestion spikes) have been reported down to the laboratory's method detection limits (MDLs). Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the adjusted MDL is listed in the concentration column.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, MDLs, LODs, and LOQs are listed on Form 10 of the accompanying data package.

Wet Chemistry Analysis

The samples of Work Order SO8914 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for alkalinity, filterable residue, and total biochemical oxygen demand were performed according to "Standard Methods for the Examination of Water and Wastewater", 15th, 16th, 17th, 18th, 19th, and 20th editions, 1980, 1985, 1989, 1992, 1995, 1999. APHA-AWWA-WPCF.

Analyses for chloride and sulfate were performed according to "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW-846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015).

Analyses for nitrate were performed according to "Methods for the Determination of Inorganic Substances in Environmental Samples", EPA 600/R-93/100, August 1993.

All Wet Chemistry results were evaluated to Katahdin Analytical Services' Method Detection Limits (MDL). Measured concentrations that fall between the MDL and Katahdin's Limit of Quantitation (LOQ) are flagged "J". Measured concentrations that are below the MDL are flagged "U" and reported as "U LOQ", where "LOQ" is the numerical value of the Limit of Quantitation.

All analyses were performed within analytical holding times. All quality control criteria were met, with the following exceptions:

The relative percent difference (20%) between duplicate analyses of Katahdin Sample Nos. SO8914-5 for filterable residue is greater than the laboratory's acceptance limit of 10%.

The nitrate recoveries in the matrix spike (35%) and matrix spike duplicate (33%) aliquots of Katahdin Sample No. SO8914-1 are outside the laboratory's acceptance limits of 90% - 110%.

The sulfate recoveries in the matrix spike (0%) and matrix spike duplicate (0%) aliquots of Katahdin Sample No. SO8914-1 are outside the laboratory's acceptance limits of 90% - 110%.

Subcontracted Data

Analyses for Dissolved Organic Carbon by Method SW9060A were performed by subcontract laboratories. Please refer to the sections of the data package titled Subcontracted Data.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Quality Assurance Officer, or their designee, as verified by the following signature.

Leslie Dimond ***Mar 02, 2022***

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin Analytical Services, LLC.

Sample Receipt Condition Report

Client: Arcadis	KAS PM: HHM	Sampled By: Client
Project:	KIMS Entry By: GV	Delivered By: KAS
KAS Work Order#: 508914	KIMS Review By: HHM	Received By: GV
	Labeled By: GV	
SDG #:	Cooler: 1 of 1	Date/Time Rec.: 12-29-21/14:58

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 5.5 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles:				✓	
Aqueous: No bubble larger than a pea?				✓	
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Page 1 of 1

Client	Contact	Phone #	Fax #
Arcadis - Seres JV	Heather Levesque	(619) 370-0374	( )

Address	City	State	Zip Code

Purchase Order #	Proj. Name / No.	Katahdin Quote #
	Devens / 30048342.07F	

Bill (if different than above)	Address

Sampler (Print / Sign)	Copies To:
Desmond Bedard Desmond Bedard	

LAB USE ONLY

WORK ORDER #: 508914

KATAHDIN PROJECT NUMBER

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	ANALYSIS AND CONTAINER TYPE PRESERVATIVES: Filt. Y N / Dis. TOC H2SO4	Filt. Y N / Dis. Metals HNO3	Filt. Y N / Total Metals HNO3	Filt. Y N / Alkalinity, TDS, Anions None	Filt. Y N / BOD None	Filt. Y N	Filt. Y N	Filt. Y N	Filt. Y N	Filt. Y N
	MW-21-30-EVENT#4	12/28/21/ 10:13	GW	2			✓	✓						
	MW-21-30-FF-EVENT#4	12/28/21/ 10:13	GW	3	✓	✓								
	MW-21-30-EVENT#4-MS	12/28/21/ 10:13	GW	2			✓	✓						
	MW-21-30-FF-EVENT#4-MS	12/28/21/ 10:13	GW	3	✓	✓								
	MW-21-30-EVENT#4-MSD	12/28/21/ 10:13	GW	2			✓	✓						
	MW-21-30-EVENT#4-MSD	12/28/21/ 10:13	GW	3	✓	✓								
	AS-DUP-EVENT#4	12/28/21/ 11:00	GW	2			✓	✓						
	AS-DUP-FF-EVENT#4	12/28/21/ 11:00	GW	3	✓	✓								
	MW-21-35-EVENT#4	12/28/21/ 12:15	GW	2			✓	✓						
	MW-21-35-FF-EVENT#4	12/28/21/ 12:15	GW	3	✓	✓								
	SHM-10-06-EVENT#4	12/28/21/ 14:05	GW	2			✓	✓						
	SHM-10-06-FF-EVENT#4	12/28/21/ 14:05	GW	3	✓	✓								
	MW-21-40-FF-EVENT#4	12/28/21/ 15:29	GW	~~3~~ 2 DBO	✓	~~DBO~~								
	MW-21-40-EVENT#4	12/28/21/ 15:29	GW	~~2~~ 3 DBO		✓	✓	✓	←	Dis. Metals sample in an unpreserved container. Must be filtered in lab.				
	MW-21-15-EVENT#4	12/29/21/ 11:35	GW	3	✓	✓								
	MW-21-15-FF-EVENT#4	12/29/21/ 11:35	GW	3			✓	✓	✓					

COMMENTS

Lab did not send labels as requested → called lab @ 10:16 on 12/28/21 and confirmed it was OK to sharpie directly on bottleware.

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Desmond Bedard	12/29/21 12:00	TTS / Shaman 12/29/2021 12:00	Buchanan 12/29/2021 14:58		
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin
ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody (ln01)

Mar. 02, 2022
11:16 AM

Login Number: SO8914

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Primary Report Address:
Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston, SC 29492
USA
halevesque@seres-es.com

Primary Invoice Address:
Accounts Payable
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston,SC 29492
USA
metunstall@seres-es.com

Report CC Addresses:
Invoice CC Addresses:

Quote/Incoming: SERES-FT-DEVENS

Login Information

ANALYSIS INSTRUCTIONS	:	DOD 5.3, ND to LOQ w/ J flags, include LOD on ROAs. Dec 2021 Anions: NO3 by E353.2, Cl/SO4 by SW9056.
CHECK NO.	:	
CLIENT PO#	:	Project # JV2008 04.03
CLIENT PROJECT MANAGE	:	Heather Levesque
CONTRACT	:	W912WJ-19D-0014
COOLER TEMPERATURE	:	5.5
DELIVERY SERVICES	:	KAS
EDD FORMAT	:	WESTMDLPQLLOD-XLS
LOGIN INITIALS	:	GN
PM	:	HHM
PROJECT NAME	:	Fort Devens 2021 LTM
QC LEVEL	:	IV
REPORT INSTRUCTIONS	:	Upload EDD to Ft. Devens Database. Upload to SDS. Email reports to halevesque@seres-es.com; Ian.Martz@arcadis.com; Jennifer.Singer@arcadis.com. Email invoices to METunstall@seres-es.com & HALevesque@seres-es.com.
SDG ID	:	
SDG STATUS	:	
VERBAL TAT	:	

11:22 am, Mar 02, 2022

Run Reports: Logindetail

REISSUE

0000009

Login Number: SO8914

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Quote/Incoming: SERES-FT-DEVENS

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SO8914-1	MW-21-3D-EVENT#4	28-DEC-21 10:13	29-DEC-21		19-JAN-22		08-FEB-22

Sample Comments: MS/MSD

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Service	S	COURIER-BILLING			
Aqueous	S	E353.2-NITRATE	30-DEC-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	11-JAN-22		
Aqueous	S	SM2540C-TDS	04-JAN-22		250mL Plastic
Aqueous	S	SW3010-PREP	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	26-JAN-22		

SO8914-2	MW-21-3D-FF-EVENT#4	28-DEC-21 10:13	29-DEC-21		19-JAN-22		08-FEB-22

Sample Comments: MS/MSD

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			

SO8914-3	AS-DUP-EVENT#4	28-DEC-21 11:00	29-DEC-21		19-JAN-22		08-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	E353.2-NITRATE	30-DEC-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	11-JAN-22		
Aqueous	S	SM2540C-TDS	04-JAN-22		250mL Plastic
Aqueous	S	SW3010-PREP	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	26-JAN-22		

SO8914-4	AS-DUP-FF-EVENT#4	28-DEC-21 11:00	29-DEC-21		19-JAN-22		08-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			

Login Number: SO8914

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Quote/Incoming: SERES-FT-DEVENS

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SO8914-5	MW-21-3S-EVENT#4	28-DEC-21 12:15	29-DEC-21		19-JAN-22		08-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	E353.2-NITRATE	30-DEC-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	11-JAN-22		
Aqueous	S	SM2540C-TDS	04-JAN-22		250mL Plastic
Aqueous	S	SW3010-PREP	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	26-JAN-22		

SO8914-6	MW-21-3S-FF-EVENT#4	28-DEC-21 12:15	29-DEC-21		19-JAN-22		08-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			

SO8914-7	SMH-10-06-EVENT#4	28-DEC-21 14:05	29-DEC-21		19-JAN-22		08-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	E353.2-NITRATE	30-DEC-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	11-JAN-22		
Aqueous	S	SM2540C-TDS	04-JAN-22		250mL Plastic
Aqueous	S	SW3010-PREP	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	26-JAN-22		

SO8914-8	SMH-10-06-FF-EVENT#4	28-DEC-21 14:05	29-DEC-21		19-JAN-22		08-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			

Run Reports: Logindetail

11:22 am, Mar 02, 2022

Login Number: SO8914

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Quote/Incoming: SERES-FT-DEVENS

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SO8914-9	MW-21-4D-EVENT#4	28-DEC-21 15:29	29-DEC-21		19-JAN-22		08-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	E353.2-NITRATE	30-DEC-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	11-JAN-22		
Aqueous	S	SM2540C-TDS	04-JAN-22		250mL Plastic
Aqueous	S	SW3010-PREP	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	26-JAN-22		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SO8914-10	MW-21-4D-FF-EVENT#4	28-DEC-21 15:29	29-DEC-21		19-JAN-22		08-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SO8914-11	MW-21-1S-EVENT#4	28-DEC-21 11:35	29-DEC-21		19-JAN-22		08-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	E353.2-NITRATE	30-DEC-21 SHORT		125mL Plastic
Aqueous	S	SM2320B-ALKALINITY	11-JAN-22		
Aqueous	S	SM2540C-TDS	04-JAN-22		250mL Plastic
Aqueous	S	SM5210B-TBOD	30-DEC-21 SHORT		250mL Plastic
Aqueous	S	SW3010-PREP	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW9056-ANIONS	26-JAN-22		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SO8914-12	MW-21-1S-FF-EVENT#4	28-DEC-21 11:35	29-DEC-21		19-JAN-22		08-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	26-JUN-22		250mL Plastic+HNO3
Aqueous	S	TOC-SUB			

Run Reports: Logindetail

11:22 am, Mar 02, 2022

REISSUE

0000012

Login Number: SO8914

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Quote/Incoming: SERES-FT-DEVENS

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SO8914-14	FILTER BLANK	29-DEC-21 17:00	29-DEC-21		19-JAN-22		08-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	27-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	27-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	27-JUN-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	27-JUN-22		250mL Plastic+HNO3

Total Samples: 13 ***Total Analyses: 108***

11:22 am, Mar 02, 2022

Run Reports: Logindetail

SAMPLE DATA SUMMARY PACKAGE

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Limit of Quantitation (LOQ) (previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.
J	The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ) (previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results may not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results may not be reportable for compliance purposes.

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	1820			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	36400		N	P	1	100	11	80
7439-89-6	IRON, TOTAL	51200		NA	P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	5550			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	3090		N	P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6160			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	16300		N	P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-FF-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	2410		N	P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	63600		NA	P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	3560			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	2.7	J		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	15100			P	1	100	11	80
7439-89-6	IRON, TOTAL	3390			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	2370			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	338			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	9190			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	20000			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-FF-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	2230			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	370			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-005

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	2.8	J		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	15700			P	1	100	11	80
7439-89-6	IRON, TOTAL	3520			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	2450			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	353			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	9480			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	20700			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-FF-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	2270			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	357			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SMH-10-06-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-007

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	1140			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	39200			P	1	100	11	80
7439-89-6	IRON, TOTAL	86000			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6130			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	2830			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	10900			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	18900			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SMH-10-06-FF-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-008

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1120			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	81600			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	2710			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-009

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	1900			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	36500			P	1	100	11	80
7439-89-6	IRON, TOTAL	58600			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	5560			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1460			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6890			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	18100			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-010

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	246			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	25800		N	P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1360			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-011

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	44600			P	1	100	11	80
7439-89-6	IRON, TOTAL	17	J		P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	7460			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	666			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	12400			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	19700			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-FF-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-012

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	100	U		P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	667			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** FILTER BLANK

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-014

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	100	U		P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	5.0	U		P	1	5.0	1.1	4.0

Comments:

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8914-1
Report Date: 24-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8914

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3D-EVENT#4	AQ	28-DEC-21 10:13:00	29-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	110 mg/L	5.0	0.23	4	STDM 2320B	WG312546	06-JAN-22 12:24:11	N/A	N/A	
Chloride	27 mg/L	4.0	0.20	2.0	SW846 9056A	WG312905	14-JAN-22 14:39:00	N/A	N/A	
Nitrate As N	U0.10 mg/L	0.10	0.030	0.050	EPA 353.2	WG312264	29-DEC-21 16:54:10	N/A	N/A	M1
Solids-Filterable Residue	100 mg/L	10.	5.0	8	STDM 2540C	WG312427	06-JAN-22 08:05:00	SM 2540C	04-JAN-22	
Sulfate	19 mg/L	1.0	0.064	0.50	SW846 9056A	WG312835	13-JAN-22 21:25:00	N/A	N/A	M2

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8914-3
Report Date: 24-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8914

Sample Description	Matrix	Date Sampled	Date Received
AS-DUP-EVENT#4	AQ	28-DEC-21 11:00:00	29-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	66. mg/L	5.0	0.23	4	STDM 2320B	WG312434	04-JAN-22 01:16:04	N/A	N/A	
Chloride	31 mg/L	4.0	0.20	2.0	SW846 9056A	WG312905	14-JAN-22 15:42:00	N/A	N/A	
Nitrate As N	U0.050 mg/L	0.050	0.015	0.025	EPA 353.2	WG312264	29-DEC-21 16:52:59	N/A	N/A	
Solids-Filterable Residue	100 mg/L	10.	5.0	8	STDM 2540C	WG312427	06-JAN-22 08:05:00	SM 2540C	04-JAN-22	
Sulfate	12 mg/L	1.0	0.064	0.50	SW846 9056A	WG312835	13-JAN-22 21:46:00	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8914-5
Report Date: 24-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8914

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3S-EVENT#4	AQ	28-DEC-21 12:15:00	29-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	71. mg/L	5.0	0.23	4	STDM 2320B	WG312434	04-JAN-22 01:18:25	N/A	N/A	
Chloride	31 mg/L	4.0	0.20	2.0	SW846 9056A	WG312905	14-JAN-22 16:02:00	N/A	N/A	
Nitrate As N	U0.050 mg/L	0.050	0.015	0.025	EPA 353.2	WG312264	29-DEC-21 16:48:21	N/A	N/A	
Solids-Filterable Residue	120 mg/L	10.	5.0	8	STDM 2540C	WG312585	10-JAN-22 14:12:00	SM 2540C	07-JAN-22	R1
Sulfate	12 mg/L	1.0	0.064	0.50	SW846 9056A	WG312835	13-JAN-22 22:07:00	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8914-7
Report Date: 24-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8914

Sample Description	Matrix	Date Sampled	Date Received
SMH-10-06-EVENT#4	AQ	28-DEC-21 14:05:00	29-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	180 mg/L	5.0	0.23	4	STDM 2320B	WG312434	04-JAN-22 01:20:41	N/A	N/A	
Chloride	32 mg/L	4.0	0.20	2.0	SW846 9056A	WG312905	14-JAN-22 16:23:00	N/A	N/A	
Nitrate As N	U0.10 mg/L	0.10	0.030	0.050	EPA 353.2	WG312264	29-DEC-21 17:02:25	N/A	N/A	
Solids-Filterable Residue	190 mg/L	10.	5.0	8	STDM 2540C	WG312427	06-JAN-22 08:05:00	SM 2540C	04-JAN-22	
Sulfate	7.4 mg/L	1.0	0.064	0.50	SW846 9056A	WG312835	13-JAN-22 22:28:00	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8914-9
Report Date: 24-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8914

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4D-EVENT#4	AQ	28-DEC-21 15:29:00	29-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	140 mg/L	5.0	0.23	4	STDM 2320B	WG312434	04-JAN-22 01:24:02	N/A	N/A	
Chloride	28 mg/L	4.0	0.20	2.0	SW846 9056A	WG312905	14-JAN-22 17:26:00	N/A	N/A	
Nitrate As N	U0.10 mg/L	0.10	0.030	0.050	EPA 353.2	WG312264	29-DEC-21 17:03:34	N/A	N/A	
Solids-Filterable Residue	190 mg/L	10.	5.0	8	STDM 2540C	WG312427	06-JAN-22 08:05:00	SM 2540C	04-JAN-22	
Sulfate	22 mg/L	1.0	0.064	0.50	SW846 9056A	WG312835	13-JAN-22 22:49:00	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8914-11
Report Date: 24-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8914

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1S-EVENT#4	AQ	28-DEC-21 11:35:00	29-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	180 mg/L	5.0	0.23	4	STDM 2320B	WG312434	04-JAN-22 01:26:59	N/A	N/A	
Chloride	26 mg/L	4.0	0.20	2.0	SW846 9056A	WG312905	14-JAN-22 17:46:00	N/A	N/A	
Nitrate As N	1.8 mg/L	0.050	0.015	0.025	EPA 353.2	WG312264	29-DEC-21 16:50:40	N/A	N/A	
Solids-Filterable Residue	170 mg/L	10.	5.0	8	STDM 2540C	WG312427	06-JAN-22 08:05:00	SM 2540C	04-JAN-22	
Sulfate	15 mg/L	1.0	0.064	0.50	SW846 9056A	WG312835	13-JAN-22 23:09:00	N/A	N/A	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG312275	04-JAN-22 11:07:00	SM 5210B	30-DEC-21 0923	

METALS DATA

Sample Data Section

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL, "U" LOQ or "U" LOD, where the rate of false negatives is <1%.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Katahdin Analytical Services

SDG Name: SO8914 **SOW No.** SW846

Client Field ID	Lab Sample ID
AS-DUP-EVENT#4	SO8914-003
AS-DUP-FF-EVENT#4	SO8914-004
FILTER BLANK	SO8914-014
MW-21-1S-EVENT#4	SO8914-011
MW-21-1S-FF-EVENT#4	SO8914-012
MW-21-3D-EVENT#4	SO8914-001
MW-21-3D-EVENT#4P	SO8914-001P
MW-21-3D-EVENT#4S	SO8914-001S
MW-21-3D-FF-EVENT#4	SO8914-002
MW-21-3D-FF-EVENT#4P	SO8914-002P
MW-21-3D-FF-EVENT#4S	SO8914-002S
MW-21-3S-EVENT#4	SO8914-005
MW-21-3S-FF-EVENT#4	SO8914-006
MW-21-4D-EVENT#4	SO8914-009
MW-21-4D-FF-EVENT#4	SO8914-010
MW-21-4D-FF-EVENT#4P	SO8914-010P
MW-21-4D-FF-EVENT#4S	SO8914-010S
SMH-10-06-EVENT#4	SO8914-007
SMH-10-06-FF-EVENT#4	SO8914-008

Were ICP interelement corrections applied ?	Yes
Were ICP background corrections applied ?	Yes
If yes - were raw data generated before application of background corrections ?	No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: George Brewer Name: George Brewer

Date: 01/25/22 Title: Inorganics Dept. Mgr.

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	1820			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	36400		N	P	1	100	11	80
7439-89-6	IRON, TOTAL	51200		NA	P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	5550			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	3090		N	P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6160			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	16300		N	P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-FF-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	2410		N	P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	63600		NA	P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	3560			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	2.7	J		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	15100			P	1	100	11	80
7439-89-6	IRON, TOTAL	3390			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	2370			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	338			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	9190			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	20000			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-FF-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	2230			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	370			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-005

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	2.8	J		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	15700			P	1	100	11	80
7439-89-6	IRON, TOTAL	3520			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	2450			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	353			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	9480			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	20700			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-FF-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	2270			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	357			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SMH-10-06-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-007

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	1140			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	39200			P	1	100	11	80
7439-89-6	IRON, TOTAL	86000			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6130			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	2830			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	10900			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	18900			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SMH-10-06-FF-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-008

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1120			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	81600			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	2710			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-009

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	1900			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	36500			P	1	100	11	80
7439-89-6	IRON, TOTAL	58600			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	5560			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1460			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6890			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	18100			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-010

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	246			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	25800		N	P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1360			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-011

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	44600			P	1	100	11	80
7439-89-6	IRON, TOTAL	17	J		P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	7460			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	666			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	12400			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	19700			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-FF-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-012

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	100	U		P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	667			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** FILTER BLANK

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-014

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	100	U		P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	5.0	U		P	1	5.0	1.1	4.0

Comments:

QC Summary Section

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: ICV

File: IPA05A Jan 05, 2022 11:23

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	9969.00	99.7
ARSENIC	400.0	384.90	96.2
CALCIUM	10000.0	10100.00	101.0
IRON	10000.0	10050.00	100.5
MAGNESIUM	10000.0	9864.00	98.6
MANGANESE	400.0	391.00	97.8
POTASSIUM	13600.0	13390.00	98.5
SODIUM	10000.0	9998.00	100.0

SAMPLE: CCV

File: IPA05A Jan 05, 2022 11:45

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12810.00	102.5
ARSENIC	500.0	504.40	100.9
CALCIUM	12500.0	13020.00	104.2
IRON	12500.0	12940.00	103.5
MAGNESIUM	12500.0	12730.00	101.8
MANGANESE	500.0	503.90	100.8
POTASSIUM	12500.0	12600.00	100.8
SODIUM	12500.0	12720.00	101.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: CCV

File: IPA05A Jan 05, 2022 12:03

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13130.00	105.0
ARSENIC	500.0	506.20	101.2
CALCIUM	12500.0	13250.00	106.0
IRON	12500.0	12980.00	103.8
MAGNESIUM	12500.0	12930.00	103.4
MANGANESE	500.0	506.00	101.2
POTASSIUM	12500.0	12930.00	103.4
SODIUM	12500.0	13020.00	104.2

SAMPLE: CCV

File: IPA05A Jan 05, 2022 12:55

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12300.00	98.4
ARSENIC	500.0	501.10	100.2
CALCIUM	12500.0	12460.00	99.7
IRON	12500.0	12360.00	98.9
MAGNESIUM	12500.0	12830.00	102.6
MANGANESE	500.0	482.50	96.5
POTASSIUM	12500.0	12170.00	97.4
SODIUM	12500.0	12500.00	100.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: CCV

File: IPA05A Jan 05, 2022 13:46

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12670.00	101.4
ARSENIC	500.0	507.70	101.5
CALCIUM	12500.0	12830.00	102.6
IRON	12500.0	12830.00	102.6
MAGNESIUM	12500.0	12770.00	102.2
MANGANESE	500.0	497.20	99.4
POTASSIUM	12500.0	12490.00	99.9
SODIUM	12500.0	12710.00	101.7

SAMPLE: CCV

File: IPA05A Jan 05, 2022 14:34

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12490.00	99.9
ARSENIC	500.0	509.20	101.8
CALCIUM	12500.0	12550.00	100.4
IRON	12500.0	12700.00	101.6
MAGNESIUM	12500.0	12840.00	102.7
MANGANESE	500.0	495.20	99.0
POTASSIUM	12500.0	12320.00	98.6
SODIUM	12500.0	12380.00	99.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: ICV

File: IPA06A Jan 06, 2022 11:26

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	10110.00	101.1
ARSENIC	400.0	391.50	97.9
CALCIUM	10000.0	10240.00	102.4
IRON	10000.0	10020.00	100.2
MAGNESIUM	10000.0	10090.00	100.9
MANGANESE	400.0	398.60	99.7
POTASSIUM	13600.0	13690.00	100.7
SODIUM	10000.0	10160.00	101.6

SAMPLE: CCV

File: IPA06A Jan 06, 2022 11:48

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12810.00	102.5
ARSENIC	500.0	510.20	102.0
CALCIUM	12500.0	13130.00	105.0
IRON	12500.0	12840.00	102.7
MAGNESIUM	12500.0	12940.00	103.5
MANGANESE	500.0	505.80	101.2
POTASSIUM	12500.0	12650.00	101.2
SODIUM	12500.0	12650.00	101.2

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: CCV

File: IPA06A Jan 06, 2022 12:06

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12970.00	103.8
ARSENIC	500.0	515.20	103.0
CALCIUM	12500.0	13240.00	105.9
IRON	12500.0	13010.00	104.1
MAGNESIUM	12500.0	13020.00	104.2
MANGANESE	500.0	513.20	102.6
POTASSIUM	12500.0	12990.00	103.9
SODIUM	12500.0	12980.00	103.8

SAMPLE: CCV

File: IPA06A Jan 06, 2022 12:57

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12700.00	101.6
ARSENIC	500.0	515.90	103.2
CALCIUM	12500.0	12940.00	103.5
IRON	12500.0	12750.00	102.0
MAGNESIUM	12500.0	13120.00	105.0
MANGANESE	500.0	507.40	101.5
POTASSIUM	12500.0	12620.00	101.0
SODIUM	12500.0	12580.00	100.6

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: CCV

File: IPA06A Jan 06, 2022 13:49

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12910.00	103.3
ARSENIC	500.0	517.90	103.6
CALCIUM	12500.0	13020.00	104.2
IRON	12500.0	12770.00	102.2
MAGNESIUM	12500.0	13220.00	105.8
MANGANESE	500.0	514.40	102.9
POTASSIUM	12500.0	12820.00	102.6
SODIUM	12500.0	12700.00	101.6

SAMPLE: CCV

File: IPA06A Jan 06, 2022 14:41

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12940.00	103.5
ARSENIC	500.0	520.20	104.0
CALCIUM	12500.0	12990.00	103.9
IRON	12500.0	12720.00	101.8
MAGNESIUM	12500.0	13320.00	106.6
MANGANESE	500.0	518.50	103.7
POTASSIUM	12500.0	12770.00	102.2
SODIUM	12500.0	12640.00	101.1

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: CCV

File: IPA06A Jan 06, 2022 15:33

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12680.00	101.4
ARSENIC	500.0	519.50	103.9
CALCIUM	12500.0	12810.00	102.5
IRON	12500.0	12560.00	100.5
MAGNESIUM	12500.0	13330.00	106.6
MANGANESE	500.0	510.90	102.2
POTASSIUM	12500.0	12560.00	100.5
SODIUM	12500.0	12370.00	99.0

SAMPLE: CCV

File: IPA06A Jan 06, 2022 16:25

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12480.00	99.8
ARSENIC	500.0	525.90	105.2
CALCIUM	12500.0	12550.00	100.4
IRON	12500.0	12250.00	98.0
MAGNESIUM	12500.0	13520.00	108.2
MANGANESE	500.0	505.20	101.0
POTASSIUM	12500.0	12330.00	98.6
SODIUM	12500.0	12060.00	96.5

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: PQL

File: IPA05A Jan 05, 2022 11:31

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	317.40	105.8
ARSENIC	8.0	6.81	85.1
CALCIUM	100.0	103.30	103.3
IRON	100.0	102.20	102.2
MAGNESIUM	100.0	97.89	97.9
MANGANESE	5.0	4.87	97.4
POTASSIUM	1000.0	1035.00	103.5
SODIUM	1000.0	1032.00	103.2

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: PQL

File: IPA06A Jan 06, 2022 11:34

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	314.70	104.9
ARSENIC	8.0	7.32	91.5
CALCIUM	100.0	108.20	108.2
IRON	100.0	106.40	106.4
MAGNESIUM	100.0	99.22	99.2
MANGANESE	5.0	4.72	94.4
POTASSIUM	1000.0	1049.00	104.9
SODIUM	1000.0	1050.00	105.0

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: ICB

File: IPA05A Jan 05, 2022 11:27

Analyte	Result	C
ALUMINUM	14.600	J
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	4.717	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IPA05A Jan 05, 2022 11:49

Analyte	Result	C
ALUMINUM	21.500	J
ARSENIC	1.400	U
CALCIUM	17.830	J
IRON	13.350	J
MAGNESIUM	7.977	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IPA05A Jan 05, 2022 12:07

Analyte	Result	C
ALUMINUM	12.090	J
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	4.589	J
MAGNESIUM	6.473	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	13.730	J

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: CCB
File: IPA05A Jan 05, 2022 12:59

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	3.600	U
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	25.910	J

SAMPLE: CCB
File: IPA05A Jan 05, 2022 13:50

Analyte	Result	C
ALUMINUM	12.690	J
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	6.479	J
MAGNESIUM	6.225	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB
File: IPA05A Jan 05, 2022 14:38

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	4.269	J
MAGNESIUM	5.037	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: ICB
File: IPA06A Jan 06, 2022 11:30

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	4.319	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB
File: IPA06A Jan 06, 2022 11:52

Analyte	Result	C
ALUMINUM	16.680	J
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	8.815	J
MAGNESIUM	16.600	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB
File: IPA06A Jan 06, 2022 12:10

Analyte	Result	C
ALUMINUM	13.150	J
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	8.403	J
MAGNESIUM	7.382	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: CCB
File: IPA06A Jan 06, 2022 13:02

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	8.939	J
MAGNESIUM	7.297	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB
File: IPA06A Jan 06, 2022 13:53

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	10.640	J
MAGNESIUM	9.119	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB
File: IPA06A Jan 06, 2022 14:45

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	9.517	J
MAGNESIUM	4.457	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: CCB

File: IPA06A Jan 06, 2022 15:37

Analyte	Result	C
ALUMINUM	14.190	J
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	10.700	J
MAGNESIUM	5.637	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IPA06A Jan 06, 2022 16:29

Analyte	Result	C
ALUMINUM	10.640	J
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	8.483	J
MAGNESIUM	3.708	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWPA04ICW1

Matrix: WATER **SDG Name:** SO8914

QC Batch ID: PA04ICW1

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	8.0	U
CALCIUM	100	U
IRON	100	U
MAGNESIUM	100	U
MANGANESE	5.0	U
POTASSIUM	1000	U
SODIUM	1000	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWPA05ICW1

Matrix: WATER **SDG Name:** SO8914

QC Batch ID: PA05ICW1

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	8.0	U
CALCIUM	100	U
IRON	100	U
MAGNESIUM	100	U
MANGANESE	5.0	U
POTASSIUM	1000	U
SODIUM	1000	U

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: ICSA

File: IPA05A Jan 05, 2022 11:36

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	519600.00	103.9
ARSENIC	0	-0.07	
CALCIUM	500000.00	493000.00	98.6
IRON	200000.00	195100.00	97.5
MAGNESIUM	500000.00	482500.00	96.5
MANGANESE	0	0.44	
POTASSIUM	0	3.39	
SODIUM	0	67.73	

SAMPLE: ICSAB

File: IPA05A Jan 05, 2022 11:40

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	464300.00	92.9
ARSENIC	100.00	102.40	102.0
CALCIUM	500000.00	442300.00	88.5
IRON	200000.00	172700.00	86.4
MAGNESIUM	500000.00	433700.00	86.7
MANGANESE	500.00	476.80	95.4
POTASSIUM	20000.00	21220.00	106.1
SODIUM	20000.00	21390.00	106.9

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Concentration Units: ug/L

SAMPLE: ICSA

File: IPA06A Jan 06, 2022 11:39

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	534600.00	106.9
ARSENIC	0	3.17	
CALCIUM	500000.00	508800.00	101.8
IRON	200000.00	199100.00	99.6
MAGNESIUM	500000.00	490800.00	98.2
MANGANESE	0	0.76	
POTASSIUM	0	-2.11	
SODIUM	0	78.35	

SAMPLE: ICSAB

File: IPA06A Jan 06, 2022 11:43

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	467300.00	93.5
ARSENIC	100.00	103.40	103.0
CALCIUM	500000.00	445100.00	89.0
IRON	200000.00	174600.00	87.3
MAGNESIUM	500000.00	441800.00	88.4
MANGANESE	500.00	488.40	97.6
POTASSIUM	20000.00	21540.00	107.7
SODIUM	20000.00	21460.00	107.3

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-EVENT#4P

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-001P

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, TOTAL	1920		1820		100	101.0		87	113	P
CALCIUM, TOTAL	40400		36400		2500	160.8	N	87	113	P
IRON, TOTAL	53800		51200		1000	256.0	N	87	115	P
MAGNESIUM, TOTAL	10700		5550		5000	102.8		85	113	P
MANGANESE, TOTAL	3720		3090		500	127.0	N	90	114	P
POTASSIUM, TOTAL	17200		6160		10000	110.8		86	114	P
SODIUM, TOTAL	25200		16300		7500	119.1	N	87	115	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-EVENT#4S

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-001S

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, TOTAL	1920		1820		100	95.0		87	113	P
CALCIUM, TOTAL	38600		36400		2500	86.0	N	87	113	P
IRON, TOTAL	51600		51200		1000	37.0	N	87	115	P
MAGNESIUM, TOTAL	10600		5550		5000	100.0		85	113	P
MANGANESE, TOTAL	3550		3090		500	92.4		90	114	P
POTASSIUM, TOTAL	16400		6160		10000	102.5		86	114	P
SODIUM, TOTAL	24000		16300		7500	102.5		87	115	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-FF-EVENT#4P

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-002P

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	2550		2410		100	144.0	N	87	113	P
IRON, DISSOLVED	64400		63600		1000	79.0	N	87	115	P
MANGANESE, DISSOLVED	4070		3560		500	101.8		90	114	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-FF-EVENT#4S

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-002S

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	2540		2410		100	131.0	N	87	113	P
IRON, DISSOLVED	65100		63600		1000	148.0	N	87	115	P
MANGANESE, DISSOLVED	4110		3560		500	109.2		90	114	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#4P

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-010P

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	354		246		100	108.2		87	113	P
IRON, DISSOLVED	28400		25800		2000	131.0	N	87	115	P
MANGANESE, DISSOLVED	2440		1360		1000	107.6		90	114	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#4S

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-010S

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	358		246		100	112.2		87	113	P
IRON, DISSOLVED	28100		25800		2000	113.0		87	115	P
MANGANESE, DISSOLVED	2390		1360		1000	103.4		90	114	P

Comments:

5B

POST DIGEST SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-EVENT#4A

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-001A

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, TOTAL	2280		1820		500	92.6		80	120	P
CALCIUM, TOTAL	41100		36400		5500	85.3		80	120	P
IRON, TOTAL	55400		51200		5500	76.9	A	80	120	P
MAGNESIUM, TOTAL	11000		5550		5500	99.1		80	120	P
MANGANESE, TOTAL	3490		3090		500	80.8		80	120	P
POTASSIUM, TOTAL	16200		6160		10000	100.3		80	120	P
SODIUM, TOTAL	21600		16300		5500	96.5		80	120	P

Comments:

5B

POST DIGEST SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-FF-EVENT#4A

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-002A

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	2870		2410		500	91.6		80	120	P
IRON, DISSOLVED	67900		63600		5500	77.6	A	80	120	P
MANGANESE, DISSOLVED	3990		3560		500	86.0		80	120	P

Comments:

5B

POST DIGEST SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#4A

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-010A

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	746		246		500	100.0		80	120	P
IRON, DISSOLVED	31000		25800		5500	95.1		80	120	P
MANGANESE, DISSOLVED	1840		1360		500	95.8		80	120	P

Comments:

5D

SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-001

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, TOTAL		1920		1920		0.3		P
CALCIUM, TOTAL		38600		40400		4.7		P
IRON, TOTAL		51600		53800		4.2		P
MAGNESIUM, TOTAL		10600		10700		1.3		P
MANGANESE, TOTAL		3550		3720		4.8		P
POTASSIUM, TOTAL		16400		17200		4.9		P
SODIUM, TOTAL		24000		25200		5.0		P

Comments:

5D

SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-FF-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-002

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, DISSOLVED		2540		2550		0.5		P
IRON, DISSOLVED		65100		64400		1.1		P
MANGANESE, DISSOLVED		4110		4070		0.9		P

Comments:

FORM VD - IN

5D

SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#4

Matrix: WATER **SDG Name:** SO8914

Percent Solids: 0.00 **Lab Sample ID:** SO8914-010

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, DISSOLVED		358		354		1.1		P
IRON, DISSOLVED		28100		28400		1.3		P
MANGANESE, DISSOLVED		2390		2440		1.7		P

Comments:

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWPA04ICW1

Matrix: WATER **SDG Name:** SO8914

QC Batch ID: PA04ICW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	105	104.8	87	113
CALCIUM	2500	2620	105.0	87	113
IRON	1000	1060	105.9	87	115
MAGNESIUM	5000	5240	104.7	85	113
MANGANESE	500	514	102.7	90	114
POTASSIUM	10000	10400	104.5	86	114
SODIUM	7500	7970	106.3	87	115

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWPA05ICW1

Matrix: WATER **SDG Name:** SO8914

QC Batch ID: PA05ICW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	106	105.7	87	113
CALCIUM	2500	2670	106.8	87	113
IRON	2000	2150	107.5	87	115
MAGNESIUM	5000	5220	104.4	85	113
MANGANESE	1000	1060	106.2	90	114
POTASSIUM	10000	10600	106.5	86	114
SODIUM	7500	8040	107.1	87	115

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-EVENT#4L

Matrix: WATER **SDG Name:** SO8914

Lab Sample ID: SO8914-001L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution Result	C	% Difference	Q	M
ARSENIC, TOTAL	1820		1780		2.2		P
CALCIUM, TOTAL	36400		36800		1.1		P
IRON, TOTAL	51200		51500		0.6		P
MAGNESIUM, TOTAL	5550		5540		0.2		P
MANGANESE, TOTAL	3090		3120		1.0		P
POTASSIUM, TOTAL	6160		6000		2.6		P
SODIUM, TOTAL	16300		16300		0.0		P

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-FF-EVENT#4L

Matrix: WATER **SDG Name:** SO8914

Lab Sample ID: SO8914-002L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution Result	C	% Difference	Q	M
ARSENIC, DISSOLVED	2410		2380		1.2		P
IRON, DISSOLVED	63600		63700		0.2		P
MANGANESE, DISSOLVED	3560		3600		1.1		P

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#4L

Matrix: WATER **SDG Name:** SO8914

Lab Sample ID: SO8914-010L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution Result	C	% Difference	Q	M
ARSENIC, DISSOLVED	246		234		4.9		P
IRON, DISSOLVED	25800		25800		0.0		P
MANGANESE, DISSOLVED	1360		1360		0.0		P

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/23/2019

Concentration Units: ug/L

Analyte	PQL/LOQ	IDL	M
ALUMINUM	300	10	P
ARSENIC	8.0	1.4	P
CALCIUM	100	11	P
IRON	100	3.6	P
MAGNESIUM	100	2.9	P
MANGANESE	5.0	0.87	P
POTASSIUM	1000	73	P
SODIUM	1000	12	P

LIMITS of DETECTION

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 06/11/2010

Analyte	LOD	Units	M	EPA Prep./Anal. Method
ARSENIC	5.0	ug/L	P	SW846 3010A / SW846 6010C
CALCIUM	80	ug/L	P	SW846 3010A / SW846 6010C
IRON	80	ug/L	P	SW846 3010A / SW846 6010C
MAGNESIUM	80	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	4.0	ug/L	P	SW846 3010A / SW846 6010C
POTASSIUM	500	ug/L	P	SW846 3010A / SW846 6010C
SODIUM	500	ug/L	P	SW846 3010A / SW846 6010C

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/19/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ARSENIC	1.4	ug/L	P	SW846 3010A / SW846 6010C
CALCIUM	11	ug/L	P	SW846 3010A / SW846 6010C
IRON	5.4	ug/L	P	SW846 3010A / SW846 6010C
MAGNESIUM	7.8	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	1.1	ug/L	P	SW846 3010A / SW846 6010C
POTASSIUM	41	ug/L	P	SW846 3010A / SW846 6010C
SODIUM	24	ug/L	P	SW846 3010A / SW846 6010C

ICP INTERELEMENT CORRECTION FACTORS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Instrument Name: THERMO ICAP 6500 **Instrument ID:** I **Date:** 03/10/2021

Analyte	Wavelength (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	As	Cr	Co	Cu	Mn	Mo	Ni	Ti	V
ALUMINUM	396.15	0.0	0.0006250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0293740	0.0	0.0	0.0
ANTIMONY	206.83	0.0000130	0.0	0.0000150	0.0	0.0000731	0.0160080	0.0	0.0	0.0	-0.0046490	-0.0008980	0.0	-0.0005030
ARSENIC	189.04	-0.0000090	0.0	-0.0001780	0.0	0.0	0.0001984	0.0	0.0	0.0	0.0015170	0.0	0.0	0.0
BARIUM	455.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BERYLLIUM	313.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006836	0.0001220
BORON	208.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0501700	0.0	0.0	0.0
CADMIUM	226.50	0.0	0.0	0.0000850	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0001140	0.0000801	0.0
CALCIUM	315.89	0.0	0.0	0.0	0.0	0.0	0.0026700	0.0008487	0.0	0.0	0.0	0.0	0.0	0.0
CHROMIUM	267.72	0.0	0.0	-0.0000010	0.0	0.0	0.0	0.0	0.0	0.0003640	0.0	0.0	0.0	-0.0000100
COBALT	228.62	0.0	0.0	0.0000050	0.0	0.0	0.0001670	0.0	0.0	0.0	0.0	0.0001562	0.0017840	0.0
COPPER	327.40	0.0000079	0.0	-0.0000147	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006988	0.0004860
GOLD	242.79	0.0	0.0	0.0001110	0.0	0.0	0.0	0.0	0.0	0.0058700	0.0	0.0	0.0	0.0
IRON	259.94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LEAD	220.35	-0.0001590	0.0	0.0000440	0.0	0.0001480	-0.0000772	-0.0000860	0.0004910	0.0	-0.0010840	0.0003270	-0.0000220	0.0
LITHIUM	670.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAGNESIUM	202.58	0.0	0.0	0.0000300	0.0	0.0	0.0	0.1395100	0.0	0.0	0.0145280	0.0	0.0003530	0.0
MANGANESE	257.61	-0.0000050	0.0	0.0000100	0.0000391	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MOLYBDENUM	202.03	0.0	0.0	0.0	0.0	0.0	0.0000270	0.0	0.0	-0.0000204	0.0	0.0	0.0	-0.0001163
NICKEL	231.60	0.0	0.0	-0.0000490	0.0	0.0	0.0	0.0000390	0.0	0.0	0.0034490	0.0	0.0	0.0
POTASSIUM	766.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SELENIUM	196.09	0.0000090	0.0	0.0000320	0.0	0.0003180	0.0	0.0002310	0.0	0.0006280	0.0	0.0	0.0	0.0003040
SILICON	251.61	0.0	0.0	-0.0000150	0.0	0.0	0.0	0.0	0.0	0.0	0.0132630	0.0	0.0105540	0.0
SILVER	328.07	0.0	0.0	-0.0002820	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0008413	0.0
SODIUM	589.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STRONTIUM	421.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THALLIUM	190.86	0.0000030	0.0	0.0000001	0.0	0.0	0.0	0.0023030	-0.0000680	-0.0024730	-0.0000880	0.0	-0.0009840	-0.0078940
TIN	189.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TITANIUM	334.90	0.0	0.0	0.0	0.0	0.0	0.0001510	0.0	0.0	0.0	0.0002130	0.0	0.0	0.0
VANADIUM	292.40	0.0	0.0	0.0000120	0.0	0.0	-0.0053650	0.0	0.0	-0.0001670	-0.0037960	0.0	0.0006990	0.0
ZINC	206.20	0.0	0.0	0.0	0.0	0.0	-0.0010444	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FORM XI - IN

ICP LINEAR RANGES

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 11/25/2020

Concentration Units: ug/L

Analyte	Integration Time (sec)	Linear Range	M
ALUMINUM	5.00	500000	P
ARSENIC	45.00	20000	P
CALCIUM	5.00	500000	P
IRON	5.00	250000	P
MAGNESIUM	45.00	200000	P
MANGANESE	5.00	20000	P
POTASSIUM	5.00	300000	P
SODIUM	5.00	200000	P

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** PA04ICW1

Matrix: WATER **SDG Name:** SO8914

Method: P **Prep Date:** 01/04/2022

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWPA04ICW1	LCSWPA04ICW1	0.05	0.05	
PBWPA04ICW1	PBWPA04ICW1	0.05	0.05	
MW-21-3D-EVENT#4	SO8914-001	0.05	0.05	E
MW-21-3D-EVENT#4P	SO8914-001P	0.05	0.05	E
MW-21-3D-EVENT#4S	SO8914-001S	0.05	0.05	E
MW-21-3D-FF-EVENT#4	SO8914-002	0.05	0.05	A
MW-21-3D-FF-EVENT#4P	SO8914-002P	0.05	0.05	A
MW-21-3D-FF-EVENT#4S	SO8914-002S	0.05	0.05	A
AS-DUP-EVENT#4	SO8914-003	0.05	0.05	C
AS-DUP-FF-EVENT#4	SO8914-004	0.05	0.05	C
MW-21-3S-EVENT#4	SO8914-005	0.05	0.05	C
MW-21-3S-FF-EVENT#4	SO8914-006	0.05	0.05	C
SMH-10-06-EVENT#4	SO8914-007	0.05	0.05	C
SMH-10-06-FF-EVENT#4	SO8914-008	0.05	0.05	C
MW-21-4D-EVENT#4	SO8914-009	0.05	0.05	C

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** PA05ICW1

Matrix: WATER **SDG Name:** SO8914

Method: P **Prep Date:** 01/05/2022

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWPA05ICW1	LCSWPA05ICW1	0.05	0.05	
PBWPA05ICW1	PBWPA05ICW1	0.05	0.05	
MW-21-4D-FF-EVENT#4	SO8914-010	0.05	0.05	C
MW-21-4D-FF-EVENT#4P	SO8914-010P	0.05	0.05	C
MW-21-4D-FF-EVENT#4S	SO8914-010S	0.05	0.05	C
MW-21-1S-EVENT#4	SO8914-011	0.05	0.05	C
MW-21-1S-FF-EVENT#4	SO8914-012	0.05	0.05	A
FILTER BLANK	SO8914-014	0.05	0.05	C

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Instrument ID: THERMO ICAP 6500 **File Name:** IPA05A

Date: 01/05/2022 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
Blank		1	11:14	AL	AS	CA	FE	MG MN	K	NA
Std 1		1	11:19	AL	AS	CA	FE	MG MN	K	NA
ICV		1	11:23	AL	AS	CA	FE	MG MN	K	NA
ICB		1	11:27	AL	AS	CA	FE	MG MN	K	NA
PQL		1	11:31	AL	AS	CA	FE	MG MN	K	NA
ICSA		1	11:36	AL	AS	CA	FE	MG MN	K	NA
ICSAB		1	11:40	AL	AS	CA	FE	MG MN	K	NA
CCV		1	11:45	AL	AS	CA	FE	MG MN	K	NA
CCB		1	11:49	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	11:53							
ZZZZZZ		1	11:58							
CCV		1	12:03	AL	AS	CA	FE	MG MN	K	NA
CCB		1	12:07	AL	AS	CA	FE	MG MN	K	NA
LCSWPA04ICW1		1	12:11		AS	CA	FE	MG MN	K	NA
PBWPA04ICW1		1	12:15		AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	12:20							
ZZZZZZ		5	12:24							
ZZZZZZ		5	12:28							
ZZZZZZ		1	12:33							
ZZZZZZ		1	12:37							
ZZZZZZ		1	12:42							
ZZZZZZ		1	12:46							
ZZZZZZ		1	12:51							
CCV		1	12:55	AL	AS	CA	FE	MG MN	K	NA
CCB		1	12:59	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	13:04							
ZZZZZZ		1	13:08							

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Instrument ID: THERMO ICAP 6500 **File Name:** IPA05A

Date: 01/05/2022 **Method:** P

Lab Sample ID	Client ID	D.F.	Time		Elements					
SO8914-001	MW-21-3D-EVENT#4	1	13:12		AS	CA	FE	MG MN	K	NA
SO8914-001L	MW-21-3D-EVENT#4L	5	13:17		AS	CA	FE	MG MN	K	NA
SO8914-001A	MW-21-3D-EVENT#4A	1	13:21		AS	CA	FE	MG MN	K	NA
SO8914-001P	MW-21-3D-EVENT#4P	1	13:25		AS	CA	FE	MG MN	K	NA
SO8914-001S	MW-21-3D-EVENT#4S	1	13:29		AS	CA	FE	MG MN	K	NA
SO8914-002	MW-21-3D-FF-EVENT#4	1	13:34		AS		FE	MN		
SO8914-002L	MW-21-3D-FF-EVENT#4L	5	13:38		AS		FE	MN		
SO8914-002A	MW-21-3D-FF-EVENT#4A	1	13:42		AS		FE	MN		
CCV		1	13:46	AL	AS	CA	FE	MG MN	K	NA
CCB		1	13:50	AL	AS	CA	FE	MG MN	K	NA
SO8914-002P	MW-21-3D-FF-EVENT#4P	1	13:55		AS		FE	MN		
SO8914-002S	MW-21-3D-FF-EVENT#4S	1	13:59		AS		FE	MN		
SO8914-003	AS-DUP-EVENT#4	1	14:03		AS	CA	FE	MG MN	K	NA
SO8914-004	AS-DUP-FF-EVENT#4	1	14:08		AS		FE	MN		
SO8914-005	MW-21-3S-EVENT#4	1	14:12		AS	CA	FE	MG MN	K	NA
SO8914-006	MW-21-3S-FF-EVENT#4	1	14:16		AS		FE	MN		
SO8914-007	SMH-10-06-EVENT#4	1	14:21		AS	CA	FE	MG MN	K	NA
SO8914-008	SMH-10-06-FF-EVENT#4	1	14:25		AS		FE	MN		
SO8914-009	MW-21-4D-EVENT#4	1	14:29		AS	CA	FE	MG MN	K	NA
CCV		1	14:34	AL	AS	CA	FE	MG MN	K	NA
CCB		1	14:38	AL	AS	CA	FE	MG MN	K	NA

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Instrument ID: THERMO ICAP 6500 **File Name:** IPA06A

Date: 01/06/2022 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
Blank		1	11:17	AL	AS	CA	FE	MG MN	K	NA
Std 1		1	11:22	AL	AS	CA	FE	MG MN	K	NA
ICV		1	11:26	AL	AS	CA	FE	MG MN	K	NA
ICB		1	11:30	AL	AS	CA	FE	MG MN	K	NA
PQL		1	11:34	AL	AS	CA	FE	MG MN	K	NA
ICSA		1	11:39	AL	AS	CA	FE	MG MN	K	NA
ICSAB		1	11:43	AL	AS	CA	FE	MG MN	K	NA
CCV		1	11:48	AL	AS	CA	FE	MG MN	K	NA
CCB		1	11:52	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	11:56							
ZZZZZZ		1	12:01							
CCV		1	12:06	AL	AS	CA	FE	MG MN	K	NA
CCB		1	12:10	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	12:14							
ZZZZZZ		1	12:19							
ZZZZZZ		1	12:23							
ZZZZZZ		1	12:27							
ZZZZZZ		1	12:32							
ZZZZZZ		1	12:36							
ZZZZZZ		1	12:40							
ZZZZZZ		1	12:44							
ZZZZZZ		1	12:49							
ZZZZZZ		1	12:53							
CCV		1	12:57	AL	AS	CA	FE	MG MN	K	NA
CCB		1	13:02	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	13:06							
ZZZZZZ		1	13:10							

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Instrument ID: THERMO ICAP 6500 **File Name:** IPA06A

Date: 01/06/2022 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
ZZZZZZ		1	13:15							
ZZZZZZ		1	13:19							
LCSWPA05ICW1		1	13:23		AS	CA	FE	MG MN	K	NA
PBWPA05ICW1		1	13:27		AS	CA	FE	MG MN	K	NA
ZZZZZZ		5	13:32							
ZZZZZZ		5	13:36							
ZZZZZZ		5	13:40							
ZZZZZZ		5	13:45							
CCV		1	13:49	AL	AS	CA	FE	MG MN	K	NA
CCB		1	13:53	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	13:57							
ZZZZZZ		1	14:02							
ZZZZZZ		5	14:06							
ZZZZZZ		5	14:11							
ZZZZZZ		5	14:15							
ZZZZZZ		5	14:19							
ZZZZZZ		5	14:23							
ZZZZZZ		5	14:28							
ZZZZZZ		5	14:32							
ZZZZZZ		5	14:36							
CCV		1	14:41	AL	AS	CA	FE	MG MN	K	NA
CCB		1	14:45	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		5	14:49							
ZZZZZZ		1	14:53							
ZZZZZZ		1	14:58							
ZZZZZZ		1	15:02							
ZZZZZZ		1	15:07							

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO8914

Instrument ID: THERMO ICAP 6500 **File Name:** IPA06A

Date: 01/06/2022 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
ZZZZZZ		1	15:11							
ZZZZZZ		1	15:15							
ZZZZZZ		1	15:20							
ZZZZZZ		1	15:24							
ZZZZZZ		1	15:28							
CCV		1	15:33	AL	AS	CA	FE	MG MN	K	NA
CCB		1	15:37	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		2	15:41							
ZZZZZZ		2	15:46							
SO8914-010	MW-21-4D-FF-EVENT#4	1	15:50		AS		FE	MN		
SO8914-010L	MW-21-4D-FF-EVENT#4L	5	15:55		AS		FE	MN		
SO8914-010A	MW-21-4D-FF-EVENT#4A	1	15:59		AS		FE	MN		
SO8914-010P	MW-21-4D-FF-EVENT#4P	1	16:03		AS		FE	MN		
SO8914-010S	MW-21-4D-FF-EVENT#4S	1	16:07		AS		FE	MN		
SO8914-011	MW-21-1S-EVENT#4	1	16:12		AS	CA	FE	MG MN	K	NA
SO8914-012	MW-21-1S-FF-EVENT#4	1	16:16		AS		FE	MN		
SO8914-014	FILTER BLANK	1	16:20		AS		FE	MN		
CCV		1	16:25	AL	AS	CA	FE	MG MN	K	NA
CCB		1	16:29	AL	AS	CA	FE	MG MN	K	NA

Raw Data Section

KATAHDIN ANALYTICAL SERVICES, LLC
METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: I (Thermo iCAP 6500) **ANALYST:** EP **ANALYSIS DATE:** 01/05/2022

METHOD: ICP
- ☑ 200.7
- ☑ 6010
- ☑ DOD
- ☐ _____

FILE NAME: IPA05A

REVIEWED
EP 01-04-22
KATAHDIN ANALYTICAL
METALS SECTION

The pHs of all samples that were tested by direct analysis in this analytical run were checked just prior to analysis and confirmed to be <2. The time of preservation of these samples was checked in the "Measured Turbidity and Preservation of Incoming Samples" logbook to verify that they had been preserved at least 16 hours prior to analysis. These verifications were performed by EP (initals) on 1/5/22 (date). Client IDs verified

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
Cal. Blk/ICB/CCB	MW20733	12/20/2021	12/20/2022	0 ug/L
Standard 1	MW20722	12/14/2021	02/04/2022	Varies by Element
ICV	MW20710	12/09/2021	01/27/2022	Varies by Element
PQL	MW20737	12/22/2021	03/22/2022	Varies by Element
LRS1	MW20736	12/22/2021	03/22/2022	Varies by Element
LRS2	MW20724	12/17/2021	03/17/2022	Varies by Element
ICSA	MW20738	12/22/2021	03/22/2022	Varies by Element
ICSAB	MW20739	12/22/2021	01/26/2022	Varies by Element
CCV	MW20751	01/04/2022	02/04/2022	Varies by Element
Internal Standard	MW20706	12/08/2021	03/08/2022	5.0 mg/L Yttrium

Additional Comments and Notes:

EP 01-06-22

Dilutions: Some samples were diluted based on history or due to interfering element concentrations.

Dilution preparations are as follows:

5x diln.: 2.0 mL of sample (pipet M29) + 8.0 mL of MW20693 (pipet M29)

Post Spike: 0.123mL MW20532 (pipet M27) to 6.0mL of sample (pipet M29)

INSTRUMENT RUNLOG

Instrument: ICAP 6500

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Blank	1.000	IPA05A	01/05/2022	11:14	EP
Std 1	1.000	IPA05A	01/05/2022	11:19	EP
ICV	1.000	IPA05A	01/05/2022	11:23	EP
ICB	1.000	IPA05A	01/05/2022	11:27	EP
PQL	1.000	IPA05A	01/05/2022	11:31	EP
ICSA	1.000	IPA05A	01/05/2022	11:36	EP
ICSAB	1.000	IPA05A	01/05/2022	11:40	EP
CCV	1.000	IPA05A	01/05/2022	11:45	EP
CCB	1.000	IPA05A	01/05/2022	11:49	EP
LRS1	1.000	IPA05A	01/05/2022	11:53	EP
LRS2	1.000	IPA05A	01/05/2022	11:58	EP
CCV	1.000	IPA05A	01/05/2022	12:03	EP
CCB	1.000	IPA05A	01/05/2022	12:07	EP
LCSWPA04ICW1	1.000	IPA05A	01/05/2022	12:11	EP
PBWPA04ICW1	1.000	IPA05A	01/05/2022	12:15	EP
SP0012-001	1.000	IPA05A	01/05/2022	12:20	EP
SO8887-001	5.000	IPA05A	01/05/2022	12:24	EP
SO8920-001	5.000	IPA05A	01/05/2022	12:28	EP
SO8892-001	1.000	IPA05A	01/05/2022	12:33	EP
SO8892-002	1.000	IPA05A	01/05/2022	12:37	EP
SO8892-003	1.000	IPA05A	01/05/2022	12:42	EP
SO8892-004	1.000	IPA05A	01/05/2022	12:46	EP
SO8892-005	1.000	IPA05A	01/05/2022	12:51	EP
CCV	1.000	IPA05A	01/05/2022	12:55	EP
CCB	1.000	IPA05A	01/05/2022	12:59	EP
SO8894-001	1.000	IPA05A	01/05/2022	13:04	EP
SO8894-002	1.000	IPA05A	01/05/2022	13:08	EP
SO8914-001	1.000	IPA05A	01/05/2022	13:12	EP
SO8914-001L	5.000	IPA05A	01/05/2022	13:17	EP
SO8914-001A	1.000	IPA05A	01/05/2022	13:21	EP
SO8914-001P	1.000	IPA05A	01/05/2022	13:25	EP
SO8914-001S	1.000	IPA05A	01/05/2022	13:29	EP
SO8914-002	1.000	IPA05A	01/05/2022	13:34	EP
SO8914-002L	5.000	IPA05A	01/05/2022	13:38	EP
SO8914-002A	1.000	IPA05A	01/05/2022	13:42	EP
CCV	1.000	IPA05A	01/05/2022	13:46	EP
CCB	1.000	IPA05A	01/05/2022	13:50	EP
SO8914-002P	1.000	IPA05A	01/05/2022	13:55	EP
SO8914-002S	1.000	IPA05A	01/05/2022	13:59	EP
SO8914-003	1.000	IPA05A	01/05/2022	14:03	EP
SO8914-004	1.000	IPA05A	01/05/2022	14:08	EP
SO8914-005	1.000	IPA05A	01/05/2022	14:12	EP
SO8914-006	1.000	IPA05A	01/05/2022	14:16	EP
SO8914-007	1.000	IPA05A	01/05/2022	14:21	EP

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
SO8914-008	1.000	IPA05A	01/05/2022	14:25	EP
SO8914-009	1.000	IPA05A	01/05/2022	14:29	EP
CCV	1.000	IPA05A	01/05/2022	14:34	EP
CCB	1.000	IPA05A	01/05/2022	14:38	EP
PQL	1.000	IPA05A	01/05/2022	14:42	EP
ICSA	1.000	IPA05A	01/05/2022	14:46	EP
ICSAB	1.000	IPA05A	01/05/2022	14:51	EP
CCV	1.000	IPA05A	01/05/2022	14:55	EP
CCB	1.000	IPA05A	01/05/2022	15:00	EP

Intensity Report

Author:

Published: 1/5/2022 3:20:13PM

Notes:

Blank

Method Name: FAST-2016_NO_AU Method Revision: 1,076

Analyst Name: EP

Acquire Date: 1/5/2022 11:14:39AM Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.0001340	Cts/S	0.00001000	7.192	-20.45
Al3961_R		-0.00003700	Cts/S	0.0004780	1,292	-0.6728
As1891_A		-0.0004090	Cts/S	0.00004600	11.30	-3.595
B_2089_A		0.0005130	Cts/S	0.00007500	14.67	4.515
Ba4554_R		0.0009060	Cts/S	0.0001410	15.58	16.66
Be3130_R		-0.0002430	Cts/S	0.00005600	23.18	-4.468
Ca3158_R		-0.001037	Cts/S	0.0003500	33.73	-19.06
Cd2265_A		0.000004000	Cts/S	0.00002300	536.4	-0.03760
Co2286_A		0.0003280	Cts/S	0.00003300	9.903	2.888
Cr2677_A		0.000003000	Cts/S	0.000009000	289.7	0.4838
Cu3273_A		-0.0002080	Cts/S	0.000007000	3.517	-31.69
Fe2599_R		0.0008000	Cts/S	0.0001300	16.25	14.70
K_7664_R		-0.004742	Cts/S	0.00002800	0.5822	-87.19
Li6707_R		0.00007800	Cts/S	0.0008760	1,129	1.442
Mg2025_A		-0.0009150	Cts/S	0.00009100	9.889	-8.054
Mn2576_R		0.0001250	Cts/S	0.0002970	237.3	2.304
Mo2020_A		0.00002800	Cts/S	0.000006000	22.65	0.2466
Na5895_R		0.003354	Cts/S	0.0005800	17.30	61.67
Ni2316_A		-0.00002200	Cts/S	0.00003500	162.6	-0.1898
Pb2203_A		-0.00007000	Cts/S	0.00003700	52.51	-0.6129
Sb2068_A		0.00001200	Cts/S	0.0000	2.043	0.1049
Se1960_A		0.0002970	Cts/S	0.000007000	2.212	2.617
Si2516_R		0.007189	Cts/S	0.001537	21.38	132.2
Sn1899_A		0.00006800	Cts/S	0.000001000	1.425	0.5986
Sr4215_R		-0.002800	Cts/S	0.0006530	23.32	-51.47
Ti3349_A		-0.00003300	Cts/S	0.00003800	114.5	-4.995
Tl1908_A		-0.0001610	Cts/S	0.00006100	37.97	-1.416
V_2924_A		-0.00003500	Cts/S	0.0000	0.5922	-5.256
Zn2062_A		0.00002700	Cts/S	0.00001100	40.29	0.2378
Y_3600_R		18,387	Cts/S	33.481	0.18209	18,387
Y_2243_A		8,799.0	Cts/S	4.6537	0.052889	8,799.0
Y_3600_A		152,100	Cts/S	509.41	0.33493	152,100

Std 1

Method Name: FAST-2016_NO_AU Method Revision: 1,076

Analyst Name: EP

Acquire Date: 1/5/2022 11:19:01AM Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1433	Cts/S	0.003183	2.221	20,650
Al3961_R		1.421	Cts/S	0.006495	0.4570	25,840
As1891_A		0.04689	Cts/S	0.00009300	0.1981	393.2
B_2089_A		0.1802	Cts/S	0.0004020	0.2232	1,511
Ba4554_R		3.483	Cts/S	0.02103	0.6038	63,320
Be3130_R		5.417	Cts/S	0.04476	0.8262	98,480
Ca3158_R		1.757	Cts/S	0.005193	0.2955	31,950
Cd2265_A		1.537	Cts/S	0.003772	0.2454	12,890
Co2286_A		0.4810	Cts/S	0.001261	0.2622	4,033
Cr2677_A		0.07801	Cts/S	0.001937	2.483	11,240
Cu3273_A		0.08018	Cts/S	0.001609	2.006	11,550
Fe2599_R		2.696	Cts/S	0.01985	0.7360	49,020
K_7664_R		0.8107	Cts/S	0.002152	0.2655	14,740
Li6707_R		0.5294	Cts/S	0.002225	0.4203	9,625

Std 1

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 11:19:01AM
Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Mg2025_A		1.062	Cts/S	0.0005110	0.04814	8,909
Mn2576_R		0.6095	Cts/S	0.004525	0.7424	11,080
Mo2020_A		0.3958	Cts/S	0.001290	0.3258	3,319
Na5895_R		2.612	Cts/S	0.003116	0.1193	47,500
Ni2316_A		0.2423	Cts/S	0.0008870	0.3661	2,032
Pb2203_A		0.1189	Cts/S	0.0001990	0.1670	996.9
Sb2068_A		0.06783	Cts/S	0.0001660	0.2440	568.8
Se1960_A		0.03648	Cts/S	0.0001230	0.3375	305.9
Si2516_R		0.7869	Cts/S	0.01214	1.543	14,310
Sn1899_A		0.06296	Cts/S	0.00009800	0.1557	527.9
Sr4215_R		3.813	Cts/S	0.01745	0.4576	69,330
Ti3349_A		0.1901	Cts/S	0.003614	1.902	27,380
Tl1908_A		0.07303	Cts/S	0.0002850	0.3899	612.3
V_2924_A		0.07641	Cts/S	0.001988	2.602	11,010
Zn2062_A		0.3626	Cts/S	0.0008490	0.2341	3,040
Y_3600_R		18,181	Cts/S	15.654	0.086101	18,181
Y_2243_A		8,385.2	Cts/S	1.5054	0.017953	8,385.2
Y_3600_A		144,080	Cts/S	2,396.7	1.6634	144,080

ICV

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 11:23:08AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		397.2	ug/L	1.035	0.2605	8,333
Al3961_R		9,969	ug/L	180.5	1.811	10,470
As1891_A		384.9	ug/L	0.9642	0.2505	152.8
B_2089_A		396.9	ug/L	1.021	0.2572	617.1
Ba4554_R		396.4	ug/L	5.160	1.302	25,530
Be3130_R		394.1	ug/L	4.682	1.188	39,450
Ca3158_R		10,100	ug/L	276.2	2.734	13,110
Cd2265_A		402.4	ug/L	0.009355	0.002325	5,311
Co2286_A		403.6	ug/L	0.7338	0.1818	1,668
Cr2677_A		400.7	ug/L	0.1571	0.03920	4,583
Cu3273_A		404.0	ug/L	3.739	0.9256	4,730
Fe2599_R		10,050	ug/L	178.3	1.773	20,050
K_7664_R		13,390	ug/L	292.6	2.186	7,983
Li6707_R		405.3	ug/L	1.808	0.4461	3,967
Mg2025_A		9,864	ug/L	2.360	0.02393	3,596
Mn2576_R		391.0	ug/L	8.543	2.185	4,406
Mo2020_A		406.4	ug/L	0.05378	0.01323	1,381
Na5895_R		9,998	ug/L	203.3	2.034	19,350
Ni2316_A		406.3	ug/L	0.2717	0.06687	845.3
Pb2203_A		406.3	ug/L	0.04906	0.01208	414.4
Sb2068_A		396.0	ug/L	0.8756	0.2211	230.7
Se1960_A		399.3	ug/L	0.3269	0.08187	126.6
Si2516_R		10,060	ug/L	510.8	5.077	5,817
Sn1899_A		403.5	ug/L	1.723	0.4271	218.5
Sr4215_R		398.9	ug/L	5.078	1.273	28,090
Ti3349_A		404.7	ug/L	1.495	0.3695	11,270
Tl1908_A		406.5	ug/L	0.8293	0.2040	254.1
V_2924_A		402.0	ug/L	1.472	0.3662	4,499
Zn2062_A		404.9	ug/L	0.4255	0.1051	1,261
Y_3600_R		18,487	Cts/S	494.52	2.6750	18,487
Y_2243_A		8,587.1	Cts/S	6.2288	0.072537	8,587.1
Y_3600_A		146,590	Cts/S	773.28	0.52750	146,590

ICB

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 11:27:17AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2095	ug/L	0.3712	177.2	-15.66
Al3961_R		14.60	ug/L	7.896	54.07	14.49
As1891_A		-0.1063	ug/L	0.2494	234.7	-3.621
B_2089_A		1.282	ug/L	0.3357	26.18	6.486
Ba4554_R		0.09263	ug/L	0.007134	7.702	22.49
Be3130_R		0.2721	ug/L	0.04105	15.09	22.52
Ca3158_R		2.853	ug/L	0.6793	23.81	-15.30
Cd2265_A		-0.002739	ug/L	0.006800	248.3	-0.06281
Co2286_A		0.07548	ug/L	0.01766	23.40	3.192
Cr2677_A		0.4348	ug/L	0.3829	88.06	5.564
Cu3273_A		0.2185	ug/L	0.1477	67.60	-28.62
Fe2599_R		4.717	ug/L	0.07805	1.655	23.94
K_7664_R		-25.83	ug/L	10.92	42.29	-102.2
Li6707_R		-1.089	ug/L	1.533	140.8	-9.101
Mg2025_A		2.488	ug/L	1.663	66.84	-7.084
Mn2576_R		-0.09589	ug/L	0.09840	102.6	1.217
Mo2020_A		0.6140	ug/L	0.08627	14.05	2.372
Na5895_R		6.108	ug/L	4.105	67.20	73.02
Ni2316_A		-0.1188	ug/L	0.07827	65.90	-0.4307
Pb2203_A		-0.1858	ug/L	0.5833	314.0	-0.8057
Sb2068_A		0.4078	ug/L	0.08906	21.84	0.3444
Se1960_A		-1.280	ug/L	0.6400	50.01	2.199
Si2516_R		86.09	ug/L	84.90	98.61	179.8
Sn1899_A		0.7500	ug/L	0.2402	32.03	1.008
Sr4215_R		0.3306	ug/L	0.06798	20.56	-28.15
Ti3349_A		0.3725	ug/L	0.08786	23.58	5.708
Tl1908_A		1.097	ug/L	0.1580	14.40	-0.7070
V_2924_A		0.2699	ug/L	0.2448	90.69	-2.111
Zn2062_A		0.04052	ug/L	0.1019	251.4	0.3638
Y_3600_R		18,298	Cts/S	63.968	0.34959	18,298
Y_2243_A		8,752.1	Cts/S	2.6336	0.030091	8,752.1
Y_3600_A		149,970	Cts/S	199.49	0.13302	149,970

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 11:31:41AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		9.181	ug/L	0.2450	2.669	176.4
Al3961_R		317.4	ug/L	10.36	3.263	327.5
As1891_A		6.806	ug/L	0.5485	8.060	-0.7396
B_2089_A		49.93	ug/L	0.05107	0.1023	79.82
Ba4554_R		5.294	ug/L	0.06458	1.220	352.1
Be3130_R		5.147	ug/L	0.05377	1.045	502.8
Ca3158_R		103.3	ug/L	1.554	1.505	113.4
Cd2265_A		5.061	ug/L	0.05193	1.026	66.41
Co2286_A		10.07	ug/L	0.1092	1.085	44.22
Cr2677_A		10.61	ug/L	0.1255	1.182	123.3
Cu3273_A		25.81	ug/L	0.3562	1.380	276.7
Fe2599_R		102.2	ug/L	0.05880	0.05752	215.2
K_7664_R		1,035	ug/L	12.89	1.245	528.3
Li6707_R		104.8	ug/L	1.721	1.642	1,011
Mg2025_A		97.89	ug/L	0.8056	0.8229	28.12
Mn2576_R		4.874	ug/L	0.2964	6.081	56.32
Mo2020_A		10.35	ug/L	0.04345	0.4198	35.26
Na5895_R		1,032	ug/L	6.697	0.6491	2,021
Ni2316_A		10.21	ug/L	0.05094	0.4988	20.99

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 11:31:41AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		4.787	ug/L	0.4083	8.531	4.253
Sb2068_A		9.012	ug/L	0.4091	4.540	4.764
Se1960_A		10.38	ug/L	0.08004	0.7708	5.751
Si2516_R		197.4	ug/L	44.99	22.79	240.7
Sn1899_A		101.5	ug/L	0.03931	0.03873	55.15
Sr4215_R		10.65	ug/L	0.1449	1.361	688.6
Ti3349_A		15.01	ug/L	0.1222	0.8139	418.6
Tl1908_A		14.73	ug/L	0.5565	3.779	7.833
V_2924_A		9.421	ug/L	0.2410	2.559	101.7
Zn2062_A		20.75	ug/L	0.05246	0.2528	64.58
Y_3600_R		18,204	Cts/S	118.24	0.64953	18,204
Y_2243_A		8,549.1	Cts/S	1.2177	0.014244	8,549.1
Y_3600_A		148,420	Cts/S	381.41	0.25698	148,420

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 11:36:03AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1203	ug/L	0.6833	567.9	-1,318
Al3961_R		519,600	ug/L	3,301	0.6353	517,200
As1891_A		-0.06577	ug/L	2.471	3,758	-18.55
B_2089_A		-0.7714	ug/L	0.1853	24.02	2.695
Ba4554_R		1.494	ug/L	0.01282	0.8581	107.1
Be3130_R		0.04177	ug/L	0.01845	44.18	-0.2082
Ca3158_R		493,000	ug/L	1,722	0.3493	608,000
Cd2265_A		0.04507	ug/L	0.1168	259.0	369.2
Co2286_A		-0.02520	ug/L	0.1249	495.7	5.358
Cr2677_A		2.980	ug/L	0.1642	5.510	48.20
Cu3273_A		-3.420	ug/L	0.09119	2.667	-38.36
Fe2599_R		195,100	ug/L	941.4	0.4825	368,900
K_7664_R		3.389	ug/L	13.77	406.3	-81.16
Li6707_R		9.753	ug/L	0.3820	3.917	91.92
Mg2025_A		482,500	ug/L	1,699	0.3520	147,800
Mn2576_R		0.4350	ug/L	0.2772	63.72	14.80
Mo2020_A		-1.448	ug/L	0.1379	9.524	-3.951
Na5895_R		67.73	ug/L	13.37	19.74	182.6
Ni2316_A		-0.1047	ug/L	0.7184	686.0	-13.79
Pb2203_A		0.7293	ug/L	2.232	306.0	-41.86
Sb2068_A		0.2317	ug/L	0.03987	17.21	5.851
Se1960_A		-2.705	ug/L	5.961	220.4	7.798
Si2516_R		-72.70	ug/L	35.16	48.36	69.50
Sn1899_A		4.644	ug/L	0.6389	13.76	2.609
Sr4215_R	W	5.187	ug/L	0.07217	1.391	298.0
Ti3349_A		1.406	ug/L	0.2085	14.83	29.63
Tl1908_A		-2.198	ug/L	0.07046	3.205	-1.659
V_2924_A		2.970	ug/L	0.5380	18.12	19.75
Zn2062_A		7.241	ug/L	0.3474	4.798	19.23
Y_3600_R		17,536	Cts/S	257.07	1.4660	17,536
Y_2243_A		7,246.8	Cts/S	2.8829	0.039781	7,246.8
Y_3600_A		126,470	Cts/S	43.624	0.034493	126,470

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 11:40:36AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 11:40:36AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		221.9	ug/L	0.4542	0.2047	2,886
Al3961_R		464,300	ug/L	621.3	0.1338	460,700
As1891_A		102.4	ug/L	0.1413	0.1380	18.65
B_2089_A		510.1	ug/L	2.331	0.4570	674.3
Ba4554_R		510.5	ug/L	4.892	0.9583	31,090
Be3130_R		499.6	ug/L	5.568	1.115	47,310
Ca3158_R		442,300	ug/L	5,596	1.265	543,800
Cd2265_A		965.4	ug/L	3.524	0.3651	11,140
Co2286_A		476.2	ug/L	0.7075	0.1486	1,680
Cr2677_A		501.1	ug/L	2.933	0.5854	4,956
Cu3273_A		542.0	ug/L	5.857	1.081	5,493
Fe2599_R		172,700	ug/L	442.1	0.2559	325,600
K_7664_R		21,220	ug/L	365.7	1.723	12,020
Li6707_R		551.3	ug/L	3.498	0.6344	5,103
Mg2025_A		433,700	ug/L	1,219	0.2811	134,200
Mn2576_R		476.8	ug/L	8.423	1.767	5,091
Mo2020_A		502.2	ug/L	2.013	0.4009	1,455
Na5895_R		21,390	ug/L	346.5	1.620	39,070
Ni2316_A		946.6	ug/L	2.539	0.2683	1,663
Pb2203_A		48.03	ug/L	0.7380	1.536	3.255
Sb2068_A		627.0	ug/L	1.827	0.2914	316.3
Se1960_A		53.60	ug/L	1.279	2.385	22.10
Si2516_R		1,787	ug/L	57.02	3.190	1,069
Sn1899_A		491.6	ug/L	0.8893	0.1809	226.7
Sr4215_R		516.8	ug/L	4.466	0.8641	34,420
Ti3349_A		517.6	ug/L	3.613	0.6979	12,430
Tl1908_A		90.58	ug/L	1.706	1.883	48.44
V_2924_A		513.8	ug/L	2.049	0.3987	4,957
Zn2062_A		955.4	ug/L	0.05994	0.006274	2,536
Y_3600_R		17,482	Cts/S	225.23	1.2884	17,482
Y_2243_A		7,318.0	Cts/S	7.4353	0.10160	7,318.0
Y_3600_A		126,380	Cts/S	675.21	0.53427	126,380

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 11:45:04AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		502.0	ug/L	1.128	0.2248	10,480
Al3961_R		12,810	ug/L	140.3	1.095	13,270
As1891_A		504.4	ug/L	0.2108	0.04180	196.9
B_2089_A		509.4	ug/L	1.848	0.3628	772.8
Ba4554_R		513.4	ug/L	4.557	0.8877	32,590
Be3130_R		506.0	ug/L	3.155	0.6236	49,950
Ca3158_R		13,020	ug/L	130.3	1.001	16,670
Cd2265_A		506.1	ug/L	3.427	0.6772	6,532
Co2286_A		507.8	ug/L	0.7159	0.1410	2,052
Cr2677_A		503.8	ug/L	0.3848	0.07638	5,730
Cu3273_A		496.8	ug/L	1.489	0.2997	5,792
Fe2599_R		12,940	ug/L	104.5	0.8071	25,450
K_7664_R		12,600	ug/L	147.9	1.174	7,403
Li6707_R		522.1	ug/L	5.189	0.9939	5,038
Mg2025_A		12,730	ug/L	5.543	0.04354	4,538
Mn2576_R		503.9	ug/L	6.630	1.316	5,598
Mo2020_A		504.4	ug/L	3.407	0.6754	1,676
Na5895_R		12,720	ug/L	176.7	1.389	24,250
Ni2316_A		511.5	ug/L	2.114	0.4133	1,040

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 11:45:04AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		510.5	ug/L	2.846	0.5574	509.3
Sb2068_A		501.0	ug/L	1.360	0.2715	285.3
Se1960_A		504.4	ug/L	2.849	0.5647	155.7
Si2516_R		12,820	ug/L	135.5	1.057	7,274
Sn1899_A		512.3	ug/L	1.413	0.2758	271.1
Sr4215_R		516.7	ug/L	2.878	0.5571	35,880
Ti3349_A		495.3	ug/L	2.364	0.4773	13,720
Tl1908_A		514.1	ug/L	0.3053	0.05938	314.5
V_2924_A		500.7	ug/L	1.690	0.3376	5,575
Zn2062_A		507.3	ug/L	2.021	0.3983	1,545
Y_3600_R		18,224	Cts/S	4.9901	0.027382	18,224
Y_2243_A		8,396.2	Cts/S	9.1430	0.10889	8,396.2
Y_3600_A		145,790	Cts/S	310.53	0.21300	145,790

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 11:49:13AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.01195	ug/L	0.1559	1,304	-20.51
Al3961_R		21.50	ug/L	15.04	69.97	22.07
As1891_A		0.01744	ug/L	0.4916	2,819	-3.495
B_2089_A		1.360	ug/L	0.03265	2.401	6.466
Ba4554_R		0.2255	ug/L	0.1326	58.81	31.63
Be3130_R		0.3515	ug/L	0.02932	8.342	31.01
Ca3158_R		17.83	ug/L	6.605	37.04	4.028
Cd2265_A		0.06661	ug/L	0.01601	24.04	0.8677
Co2286_A		-0.0002680	ug/L	0.1428	53,340	2.814
Cr2677_A		0.2853	ug/L	0.02719	9.529	3.809
Cu3273_A		0.3525	ug/L	0.4657	132.1	-26.95
Fe2599_R		13.35	ug/L	0.3553	2.661	41.83
K_7664_R		14.32	ug/L	20.79	145.2	-79.81
Li6707_R		-0.4932	ug/L	0.6073	123.1	-3.447
Mg2025_A		7.977	ug/L	0.1941	2.434	-4.950
Mn2576_R		0.02222	ug/L	0.1341	603.5	2.588
Mo2020_A		0.6327	ug/L	0.1293	20.44	2.385
Na5895_R		1.022	ug/L	5.366	525.0	64.60
Ni2316_A		0.05690	ug/L	0.1227	215.6	-0.05882
Pb2203_A		0.2278	ug/L	0.06510	28.58	-0.3667
Sb2068_A		1.063	ug/L	0.8065	75.90	0.7203
Se1960_A		1.362	ug/L	0.6310	46.33	2.969
Si2516_R		27.91	ug/L	79.18	283.6	150.1
Sn1899_A		0.4216	ug/L	0.1978	46.92	0.8097
Sr4215_R		0.3809	ug/L	0.1569	41.21	-25.19
Ti3349_A		0.5967	ug/L	0.006774	1.135	12.09
Tl1908_A		0.8498	ug/L	0.9769	115.0	-0.8488
V_2924_A		0.2691	ug/L	0.04771	17.73	-2.114
Zn2062_A		0.06382	ug/L	0.006563	10.28	0.4291
Y_3600_R		18,679	Cts/S	125.23	0.67041	18,679
Y_2243_A		8,567.2	Cts/S	44.753	0.52238	8,567.2
Y_3600_A		149,910	Cts/S	1,798.9	1.2000	149,910

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 11:53:37AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 11:53:37AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2,027	ug/L	47.72	2.354	41,200
Al3961_R		22.26	ug/L	4.035	18.13	221.9
As1891_A		21,130	ug/L	9.816	0.04645	7,889
B_2089_A		21,510	ug/L	62.82	0.2921	29,910
Ba4554_R		20,360	ug/L	283.8	1.394	1,287,000
Be3130_R		19,760	ug/L	12.62	0.06387	1,944,000
Ca3158_R		4.266	ug/L	0.7660	17.95	2.471
Cd2265_A		20,170	ug/L	42.84	0.2124	242,700
Co2286_A		20,940	ug/L	33.39	0.1594	79,130
Cr2677_A		20,020	ug/L	408.3	2.039	221,000
Cu3273_A		20,670	ug/L	133.3	0.6448	234,900
Fe2599_R		-2.313	ug/L	1.249	53.99	9.984
K_7664_R		-7.662	ug/L	14.11	184.1	-90.65
Li6707_R		21,270	ug/L	16.03	0.07533	204,400
Mg2025_A		-360.5	ug/L	23.82	6.607	880.5
Mn2576_R		19,830	ug/L	82.06	0.4138	219,500
Mo2020_A		5,238	ug/L	12.40	0.2366	16,300
Na5895_R		26.52	ug/L	3.800	14.33	111.2
Ni2316_A		21,020	ug/L	37.11	0.1765	39,890
Pb2203_A		21,410	ug/L	19.52	0.09118	20,090
Sb2068_A		20,990	ug/L	45.38	0.2162	11,180
Se1960_A		21,620	ug/L	25.89	0.1197	6,139
Si2516_R		751.0	ug/L	464.1	61.80	680.0
Sn1899_A		20,680	ug/L	28.82	0.1394	10,230
Sr4215_R		20,570	ug/L	41.16	0.2001	1,425,000
Ti3349_A		19,850	ug/L	458.7	2.311	533,800
Tl1908_A		20,590	ug/L	16.41	0.07970	11,850
V_2924_A		19,760	ug/L	266.2	1.347	214,700
Zn2062_A		20,090	ug/L	11.10	0.05528	57,260
Y_3600_R		18,154	Cts/S	101.49	0.55905	18,154
Y_2243_A		7,862.6	Cts/S	11.559	0.14701	7,862.6
Y_3600_A		141,530	Cts/S	2,301.0	1.6258	141,530

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 11:58:23AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.7033	ug/L	1.937	275.4	-1,626
Al3961_R		524,200	ug/L	11,850	2.261	524,500
As1891_A		3.685	ug/L	2.047	55.55	-19.43
B_2089_A		37.57	ug/L	5.408	14.39	51.91
Ba4554_R		2.227	ug/L	0.03923	1.761	152.7
Be3130_R		1.310	ug/L	0.06827	5.211	120.5
Ca3158_R		487,800	ug/L	8,225	1.686	604,800
Cd2265_A		1.964	ug/L	1.519	77.35	481.3
Co2286_A		3.323	ug/L	1.133	34.11	17.88
Cr2677_A		0.09959	ug/L	1.514	1,520	24.34
Cu3273_A		-4.227	ug/L	1.285	30.39	-16.17
Fe2599_R		242,200	ug/L	6,188	2.555	460,400
K_7664_R		316,900	ug/L	4,058	1.281	182,100
Li6707_R		10.35	ug/L	0.9670	9.341	98.03
Mg2025_A		207,400	ug/L	2,153	1.038	63,770
Mn2576_R		12.35	ug/L	0.2393	1.938	36.98
Mo2020_A		2.076	ug/L	0.4075	19.63	6.184
Na5895_R		213,900	ug/L	6,905	3.228	393,700
Ni2316_A		2.301	ug/L	1.060	46.06	-12.82

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 11:58:23AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		5.812	ug/L	0.4476	7.701	-37.79
Sb2068_A		5.166	ug/L	1.525	29.53	9.277
Se1960_A		0.2663	ug/L	5.872	2,205	9.305
Si2516_R		47,370	ug/L	382.1	0.8066	25,630
Sn1899_A		7.627	ug/L	0.2057	2.697	3.985
Sr4215_R		8.023	ug/L	0.1366	1.702	490.5
Ti3349_A		11.26	ug/L	1.384	12.29	267.2
Tl1908_A		1.752	ug/L	2.700	154.2	0.3997
V_2924_A		6.168	ug/L	1.691	27.41	49.83
Zn2062_A		6.750	ug/L	1.225	18.14	18.03
Y_3600_R		17,632	Cts/S	116.15	0.65875	17,632
Y_2243_A		7,275.6	Cts/S	60.973	0.83805	7,275.6
Y_3600_A		126,810	Cts/S	464.91	0.36662	126,810

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:03:00PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		499.7	ug/L	4.043	0.8092	10,410
Al3961_R		13,130	ug/L	113.3	0.8629	13,630
As1891_A		506.2	ug/L	0.1035	0.02045	194.8
B_2089_A	W	534.7	ug/L	0.6551	0.1225	799.0
Ba4554_R		513.1	ug/L	5.603	1.092	32,630
Be3130_R		502.0	ug/L	7.114	1.417	49,630
Ca3158_R	W	13,250	ug/L	155.6	1.174	16,990
Cd2265_A		510.2	ug/L	0.2953	0.05789	6,491
Co2286_A		513.5	ug/L	0.6781	0.1320	2,046
Cr2677_A		496.3	ug/L	2.919	0.5882	5,634
Cu3273_A		505.3	ug/L	4.265	0.8441	5,880
Fe2599_R		12,980	ug/L	198.4	1.528	25,560
K_7664_R		12,930	ug/L	124.8	0.9648	7,614
Li6707_R		518.9	ug/L	7.076	1.364	5,015
Mg2025_A		12,930	ug/L	48.41	0.3745	4,543
Mn2576_R		506.0	ug/L	5.704	1.127	5,631
Mo2020_A		510.6	ug/L	0.9068	0.1776	1,673
Na5895_R		13,020	ug/L	82.89	0.6365	24,870
Ni2316_A		516.0	ug/L	0.08259	0.01600	1,035
Pb2203_A		515.3	ug/L	0.007371	0.001431	506.8
Sb2068_A		507.2	ug/L	2.661	0.5246	284.8
Se1960_A		510.8	ug/L	1.346	0.2635	155.4
Si2516_R		13,160	ug/L	170.9	1.298	7,477
Sn1899_A		514.0	ug/L	1.318	0.2563	268.2
Sr4215_R		512.7	ug/L	5.721	1.116	35,670
Ti3349_A		499.6	ug/L	1.829	0.3661	13,820
Tl1908_A		517.0	ug/L	1.084	0.2097	311.9
V_2924_A		493.5	ug/L	1.116	0.2262	5,483
Zn2062_A		508.6	ug/L	0.07834	0.01540	1,527
Y_3600_R		18,254	Cts/S	21.276	0.11656	18,254
Y_2243_A		8,277.8	Cts/S	18.824	0.22740	8,277.8
Y_3600_A		145,500	Cts/S	250.93	0.17245	145,500

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:07:08PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:07:08PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1239	ug/L	0.2429	196.0	-22.92
Al3961_R		12.09	ug/L	7.678	63.49	12.20
As1891_A		0.3781	ug/L	0.4324	114.4	-3.293
B_2089_A	W	12.20	ug/L	0.6724	5.511	22.45
Ba4554_R		0.01872	ug/L	0.06438	343.9	18.08
Be3130_R		0.1972	ug/L	0.04885	24.77	15.29
Ca3158_R		3.808	ug/L	0.2284	5.998	-14.33
Cd2265_A		0.2384	ug/L	0.005390	2.261	3.050
Co2286_A		0.3318	ug/L	0.07692	23.18	4.117
Cr2677_A		0.5170	ug/L	0.02490	4.816	6.522
Cu3273_A		1.045	ug/L	0.7505	71.81	-18.66
Fe2599_R		4.589	ug/L	0.07092	1.546	24.13
K_7664_R		15.06	ug/L	2.046	13.58	-79.22
Li6707_R		1.843	ug/L	1.485	80.57	19.52
Mg2025_A		6.473	ug/L	0.5639	8.711	-5.386
Mn2576_R		0.2192	ug/L	0.2239	102.1	4.802
Mo2020_A		1.188	ug/L	0.05430	4.571	4.198
Na5895_R		13.73	ug/L	2.530	18.42	89.18
Ni2316_A		0.09892	ug/L	0.09616	97.21	0.03546
Pb2203_A		-0.001488	ug/L	0.2246	15,090	-0.5907
Sb2068_A		1.475	ug/L	0.02061	1.397	0.9459
Se1960_A		0.9083	ug/L	0.7778	85.63	2.783
Si2516_R		51.27	ug/L	79.49	155.0	163.5
Sn1899_A		0.6133	ug/L	0.1758	28.66	0.8984
Sr4215_R		0.2387	ug/L	0.03759	15.75	-35.19
Ti3349_A		1.379	ug/L	0.07794	5.653	34.38
Tl1908_A		1.757	ug/L	0.5714	32.53	-0.2749
V_2924_A		0.5869	ug/L	0.2321	39.56	1.517
Zn2062_A		0.3367	ug/L	0.06275	18.64	1.256
Y_3600_R		18,639	Cts/S	265.86	1.4264	18,639
Y_2243_A		8,427.4	Cts/S	5.8662	0.069609	8,427.4
Y_3600_A		149,960	Cts/S	6.8540	0.0045710	149,960

LCSWPA04ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:11:32PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		50.96	ug/L	0.3892	0.7636	1,047
Al3961_R		2,114	ug/L	23.15	1.095	2,214
As1891_A		104.8	ug/L	0.1734	0.1655	37.73
B_2089_A		527.9	ug/L	1.014	0.1920	775.9
Ba4554_R		2,084	ug/L	31.52	1.513	133,700
Be3130_R		52.48	ug/L	0.6831	1.302	5,232
Ca3158_R		2,625	ug/L	48.59	1.851	3,383
Cd2265_A		262.2	ug/L	0.7489	0.2856	3,322
Co2286_A		532.1	ug/L	2.239	0.4207	2,118
Cr2677_A		205.6	ug/L	0.9354	0.4550	2,355
Cu3273_A		262.9	ug/L	0.3292	0.1252	3,067
Fe2599_R		1,059	ug/L	19.27	1.819	2,119
K_7664_R		10,450	ug/L	180.8	1.730	6,192
Li6707_R		537.8	ug/L	6.955	1.293	5,246
Mg2025_A		5,235	ug/L	15.59	0.2978	1,850
Mn2576_R		513.7	ug/L	9.574	1.864	5,772
Mo2020_A		107.8	ug/L	0.3829	0.3551	353.1
Na5895_R		7,973	ug/L	145.9	1.831	15,390
Ni2316_A		533.3	ug/L	2.279	0.4273	1,064

LCSWPA04ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:11:32PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		106.3	ug/L	1.348	1.269	104.1
Sb2068_A		109.4	ug/L	0.5561	0.5084	58.87
Se1960_A		108.0	ug/L	0.7864	0.7283	34.80
Si2516_R		1,088	ug/L	33.99	3.123	748.7
Sn1899_A		538.8	ug/L	0.1309	0.02430	280.9
Sr4215_R		526.5	ug/L	7.775	1.477	36,960
Ti3349_A		523.0	ug/L	0.5732	0.1096	14,580
Tl1908_A		106.9	ug/L	0.5219	0.4884	63.99
V_2924_A		518.8	ug/L	0.9502	0.1831	5,854
Zn2062_A		516.8	ug/L	1.600	0.3096	1,551
Y_3600_R		18,423	Cts/S	72.703	0.39463	18,423
Y_2243_A		8,272.6	Cts/S	9.7010	0.11727	8,272.6
Y_3600_A		146,820	Cts/S	163.02	0.11104	146,820

PBWPA04ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:15:44PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.004543	ug/L	0.2573	5,663	-19.95
Al3961_R		9.425	ug/L	2.236	23.73	9.197
As1891_A		-1.020	ug/L	0.7482	73.33	-3.847
B_2089_A		6.489	ug/L	0.3094	4.768	13.94
Ba4554_R		0.6574	ug/L	0.07861	11.96	58.89
Be3130_R		0.1183	ug/L	0.04770	40.31	7.273
Ca3158_R		1.306	ug/L	0.9999	76.56	-17.42
Cd2265_A		0.07378	ug/L	0.02892	39.19	0.9164
Co2286_A		0.01381	ug/L	0.05771	417.9	2.826
Cr2677_A		0.1211	ug/L	0.1994	164.6	1.878
Cu3273_A		0.7502	ug/L	0.3046	40.61	-22.06
Fe2599_R		0.8331	ug/L	0.5764	69.19	16.39
K_7664_R		39.31	ug/L	32.54	82.76	-63.79
Li6707_R		0.5656	ug/L	0.9597	169.7	6.929
Mg2025_A		3.806	ug/L	0.2337	6.140	-6.345
Mn2576_R		0.002787	ug/L	0.06720	2,411	2.333
Mo2020_A		0.6156	ug/L	0.007390	1.200	2.286
Na5895_R		19.07	ug/L	2.159	11.32	98.48
Ni2316_A		-0.04293	ug/L	0.2414	562.3	-0.2611
Pb2203_A		-0.1069	ug/L	0.5794	541.7	-0.6936
Sb2068_A		1.727	ug/L	0.5998	34.73	1.086
Se1960_A		-0.001305	ug/L	0.3645	27,920	2.503
Si2516_R		-14.47	ug/L	39.57	273.6	124.4
Sn1899_A		0.7839	ug/L	0.2621	33.44	0.9870
Sr4215_R		0.2858	ug/L	0.03467	12.13	-31.50
Ti3349_A		1.099	ug/L	0.2188	19.91	26.20
Tl1908_A		-0.4468	ug/L	0.3334	74.61	-1.628
V_2924_A		0.3832	ug/L	0.02713	7.079	-0.7834
Zn2062_A		0.6312	ug/L	0.1542	24.43	2.154
Y_3600_R		18,427	Cts/S	71.498	0.38802	18,427
Y_2243_A		8,414.8	Cts/S	38.039	0.45205	8,414.8
Y_3600_A		148,910	Cts/S	79.615	0.053467	148,910

SP0012-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:20:09PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SP0012-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:20:09PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.01229	ug/L	0.02546	207.1	-19.92
Al3961_R		-12.52	ug/L	1.990	15.89	13.16
As1891_A		0.1351	ug/L	0.9408	696.4	-3.421
B_2089_A		7.047	ug/L	0.1382	1.961	14.92
Ba4554_R		16.00	ug/L	0.2500	1.563	1,065
Be3130_R		0.1560	ug/L	0.02179	13.96	11.37
Ca3158_R	W	30,090	ug/L	184.8	0.6140	39,800
Cd2265_A		0.07724	ug/L	0.002233	2.891	0.9658
Co2286_A		0.1924	ug/L	0.1824	94.82	3.574
Cr2677_A		0.5992	ug/L	0.2992	49.93	7.517
Cu3273_A		84.40	ug/L	0.1204	0.1426	987.4
Fe2599_R		-1.466	ug/L	0.5537	37.77	12.08
K_7664_R		1,159	ug/L	25.53	2.203	622.2
Li6707_R		2.934	ug/L	0.7768	26.47	30.66
Mg2025_A		851.1	ug/L	4.157	0.4885	298.4
Mn2576_R		27.04	ug/L	0.4174	1.544	312.8
Mo2020_A		0.05526	ug/L	0.03370	60.98	0.4231
Na5895_R		23,440	ug/L	72.11	0.3076	46,100
Ni2316_A		0.1769	ug/L	0.07694	43.50	0.1804
Pb2203_A		0.01569	ug/L	0.6790	4,327	-0.5571
Sb2068_A		-0.5009	ug/L	0.9195	183.6	-0.1870
Se1960_A		0.2327	ug/L	0.02287	9.829	2.606
Si2516_R		3,700	ug/L	10.94	0.2958	2,263
Sn1899_A		0.4323	ug/L	0.3074	71.12	0.8097
Sr4215_R		39.07	ug/L	0.2131	0.5454	2,753
Ti3349_A		-0.2803	ug/L	0.1056	37.69	-12.93
Tl1908_A		-0.2662	ug/L	0.1779	66.82	-1.546
V_2924_A		0.3610	ug/L	0.2098	58.13	-1.150
Zn2062_A		75.03	ug/L	0.02008	0.02677	231.9
Y_3600_R		18,818	Cts/S	127.78	0.67904	18,818
Y_2243_A		8,509.4	Cts/S	59.942	0.70443	8,509.4
Y_3600_A		150,260	Cts/S	570.34	0.37956	150,260

SO8887-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:24:29PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2285	ug/L	0.3701	162.0	-18.33
Al3961_R		447.0	ug/L	3.668	0.8206	94.64
As1891_A		2.234	ug/L	0.6255	28.01	-2.972
B_2089_A		90.26	ug/L	1.231	1.364	28.22
Ba4554_R		268.7	ug/L	2.832	1.054	3,338
Be3130_R		0.2529	ug/L	0.2683	106.1	0.3363
Ca3158_R		31,000	ug/L	89.15	0.2876	7,722
Cd2265_A		1.029	ug/L	0.2114	20.55	2.779
Co2286_A		0.02479	ug/L	0.9998	4,033	2.559
Cr2677_A		1.852	ug/L	2.302	124.3	4.296
Cu3273_A		3.717	ug/L	2.985	80.29	-19.48
Fe2599_R		1,013	ug/L	16.65	1.645	401.8
K_7664_R		9,179	ug/L	58.37	0.6359	978.6
Li6707_R		29.65	ug/L	3.632	12.25	57.09
Mg2025_A		6,007	ug/L	49.60	0.8256	381.3
Mn2576_R		208.0	ug/L	0.7016	0.3372	452.8
Mo2020_A		1.947	ug/L	1.028	52.80	1.389
Na5895_R	F	4,811,000	ug/L	110,500	2.296	1,782,000
Ni2316_A		5.102	ug/L	0.8903	17.45	1.706

SO8887-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:24:29PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.6868	ug/L	0.7624	111.0	-0.4148
Sb2068_A		1.749	ug/L	2.461	140.7	0.2766
Se1960_A		4.036	ug/L	8.618	213.5	2.508
Si2516_R		3,440	ug/L	188.1	5.469	500.8
Sn1899_A		1.345	ug/L	3.768	280.1	0.6485
Sr4215_R		249.5	ug/L	4.408	1.766	3,331
Ti3349_A		19.33	ug/L	1.311	6.780	92.56
Tl1908_A		2.573	ug/L	1.029	39.98	-0.9686
V_2924_A		3.116	ug/L	1.289	41.38	1.612
Zn2062_A		51.92	ug/L	0.2204	0.4246	29.02
Y_3600_R		17,750	Cts/S	2.8342	0.015967	17,750
Y_2243_A		7,645.8	Cts/S	42.472	0.55550	7,645.8
Y_3600_A		131,860	Cts/S	788.09	0.59767	131,860

SO8920-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:28:57PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		8.477	ug/L	0.9462	11.16	15.92
Al3961_R		103.9	ug/L	18.46	17.77	21.07
As1891_A		-1.166	ug/L	0.7628	65.44	-3.451
B_2089_A		173.0	ug/L	1.322	0.7643	54.28
Ba4554_R		3.056	ug/L	1.288	42.14	55.84
Be3130_R		0.3009	ug/L	0.03626	12.05	1.685
Ca3158_R		291.5	ug/L	13.34	4.577	56.32
Cd2265_A		0.09553	ug/L	0.03200	33.50	0.2328
Co2286_A		8.814	ug/L	0.3160	3.586	9.657
Cr2677_A		12.48	ug/L	0.1045	0.8380	40.69
Cu3273_A		6.261	ug/L	1.505	24.04	-15.54
Fe2599_R		78.12	ug/L	2.065	2.644	45.68
K_7664_R		598.6	ug/L	105.3	17.58	-15.37
Li6707_R		7.086	ug/L	0.7662	10.81	15.22
Mg2025_A		39.15	ug/L	14.74	37.64	-4.715
Mn2576_R	W	65,340	ug/L	820.8	1.256	146,500
Mo2020_A		2.968	ug/L	0.3724	12.55	1.295
Na5895_R	W	466,400	ug/L	4,679	1.003	179,100
Ni2316_A		22.74	ug/L	0.8513	3.743	8.839
Pb2203_A		18.81	ug/L	2.522	13.41	3.114
Sb2068_A		3.609	ug/L	6.017	166.7	0.4870
Se1960_A		-5.893	ug/L	0.5548	9.415	4.161
Si2516_R		-115.3	ug/L	227.7	197.5	119.3
Sn1899_A		17.86	ug/L	1.894	10.60	2.407
Sr4215_R		3.406	ug/L	0.3156	9.264	-3.688
Ti3349_A		2.510	ug/L	0.3508	13.98	9.039
Tl1908_A		-7.310	ug/L	2.101	28.74	-10.33
V_2924_A		14.49	ug/L	0.9214	6.358	-23.03
Zn2062_A		18.71	ug/L	0.1720	0.9190	11.38
Y_3600_R		18,390	Cts/S	80.984	0.44036	18,390
Y_2243_A		8,221.6	Cts/S	8.4076	0.10226	8,221.6
Y_3600_A		144,200	Cts/S	754.67	0.52337	144,200

SO8892-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:33:21PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8892-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:33:21PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.8984	ug/L	0.2111	23.49	-4.022
Al3961_R		-186.8	ug/L	9.039	4.839	75.76
As1891_A		-1.259	ug/L	0.4678	37.15	-3.550
B_2089_A		57.72	ug/L	0.1825	0.3162	80.70
Ba4554_R		203.7	ug/L	0.4099	0.2012	12,700
Be3130_R		0.1364	ug/L	0.03746	27.46	8.965
Ca3158_R	W	308,900	ug/L	3,797	1.229	388,500
Cd2265_A		-0.01005	ug/L	0.1477	1,471	0.7623
Co2286_A		17.42	ug/L	0.1004	0.5764	65.53
Cr2677_A		2.334	ug/L	0.2608	11.17	33.68
Cu3273_A		4.893	ug/L	0.2424	4.954	25.34
Fe2599_R		479.9	ug/L	1.784	0.3718	939.8
K_7664_R		9,811	ug/L	64.10	0.6533	5,639
Li6707_R		98.52	ug/L	1.505	1.527	934.2
Mg2025_A	W	31,370	ug/L	59.28	0.1890	9,992
Mn2576_R	W	9,865	ug/L	4.972	0.05040	107,600
Mo2020_A		9.488	ug/L	0.1131	1.192	27.93
Na5895_R	F	277,900	ug/L	6,457	2.324	518,800
Ni2316_A		28.24	ug/L	0.1426	0.5051	51.21
Pb2203_A		1.614	ug/L	0.7992	49.52	0.9406
Sb2068_A		0.6200	ug/L	0.1540	24.84	0.4096
Se1960_A		0.9269	ug/L	0.1086	11.71	3.930
Si2516_R		11,280	ug/L	97.22	0.8617	6,296
Sn1899_A		0.3155	ug/L	0.2962	93.87	0.6623
Sr4215_R	W	1,165	ug/L	2.274	0.1951	79,500
Ti3349_A		0.6525	ug/L	0.1800	27.58	12.50
Tl1908_A		-1.897	ug/L	0.6284	33.12	-7.852
V_2924_A		2.140	ug/L	0.09771	4.566	-18.49
Zn2062_A		1.057	ug/L	0.03882	3.672	3.090
Y_3600_R		17,887	Cts/S	20.050	0.11209	17,887
Y_2243_A		7,539.9	Cts/S	29.361	0.38941	7,539.9
Y_3600_A		135,140	Cts/S	412.67	0.30537	135,140

SO8892-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:37:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1606	ug/L	0.1224	76.22	-23.47
Al3961_R		5.024	ug/L	2.248	44.73	4.704
As1891_A		-0.8116	ug/L	0.2171	26.74	-3.715
B_2089_A		2.328	ug/L	0.2306	9.903	7.674
Ba4554_R		0.1279	ug/L	0.007751	6.063	24.88
Be3130_R		0.06740	ug/L	0.01563	23.18	2.248
Ca3158_R		157.2	ug/L	1.428	0.9084	184.4
Cd2265_A		-0.04276	ug/L	0.01834	42.89	-0.5783
Co2286_A		-0.02212	ug/L	0.01992	90.03	2.638
Cr2677_A		-0.05465	ug/L	0.1843	337.2	-0.1587
Cu3273_A		0.7317	ug/L	0.3229	44.14	-22.26
Fe2599_R		0.1138	ug/L	0.1325	116.4	14.95
K_7664_R		21.85	ug/L	9.276	42.46	-74.16
Li6707_R		-0.2289	ug/L	1.030	450.0	-0.7672
Mg2025_A		6.547	ug/L	3.506	53.55	-5.301
Mn2576_R		5.560	ug/L	0.2607	4.689	64.71
Mo2020_A		0.2445	ug/L	0.02346	9.596	1.036
Na5895_R		263.5	ug/L	1.838	0.6977	567.9
Ni2316_A		0.01836	ug/L	0.2626	1,431	-0.1368

SO8892-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:37:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.2168	ug/L	0.5141	237.1	-0.7921
Sb2068_A		1.117	ug/L	0.7610	68.10	0.7298
Se1960_A		0.7911	ug/L	1.021	129.0	2.708
Si2516_R		-44.13	ug/L	39.61	89.75	107.4
Sn1899_A		0.7516	ug/L	0.1758	23.39	0.9585
Sr4215_R		0.6820	ug/L	0.009155	1.342	-3.634
Ti3349_A		-0.1290	ug/L	0.005847	4.534	-8.519
Tl1908_A		-0.8347	ug/L	0.1739	20.83	-1.847
V_2924_A		-0.2041	ug/L	0.1532	75.06	-7.518
Zn2062_A		0.9310	ug/L	0.09537	10.24	3.031
Y_3600_R		18,409	Cts/S	126.52	0.68727	18,409
Y_2243_A		8,309.8	Cts/S	76.671	0.92266	8,309.8
Y_3600_A		148,800	Cts/S	145.72	0.097929	148,800

SO8892-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:42:18PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.004769	ug/L	0.4783	10,030	-61.85
Al3961_R		1,364	ug/L	13.67	1.002	1,437
As1891_A		-0.5086	ug/L	1.042	204.9	-3.780
B_2089_A		14.13	ug/L	0.3565	2.523	24.23
Ba4554_R		44.30	ug/L	0.8624	1.947	2,826
Be3130_R		0.08823	ug/L	0.05284	59.89	1.117
Ca3158_R	W	32,450	ug/L	553.1	1.705	41,550
Cd2265_A		0.3882	ug/L	0.02997	7.721	16.56
Co2286_A		2.311	ug/L	0.09316	4.032	12.04
Cr2677_A		3.039	ug/L	0.2013	6.623	34.86
Cu3273_A		8.750	ug/L	0.3551	4.059	73.58
Fe2599_R		5,589	ug/L	108.9	1.949	10,990
K_7664_R		11,610	ug/L	193.1	1.663	6,813
Li6707_R		5.535	ug/L	0.8597	15.53	54.77
Mg2025_A		8,015	ug/L	9.776	0.1220	2,726
Mn2576_R		248.4	ug/L	3.804	1.531	2,761
Mo2020_A		0.8972	ug/L	0.03657	4.076	3.074
Na5895_R	W	74,530	ug/L	1,063	1.426	141,700
Ni2316_A		7.863	ug/L	0.1593	2.026	14.69
Pb2203_A		1.471	ug/L	0.5409	36.77	0.7564
Sb2068_A		1.572	ug/L	0.4263	27.12	1.092
Se1960_A		2.097	ug/L	0.1102	5.257	3.146
Si2516_R		7,104	ug/L	126.4	1.779	4,086
Sn1899_A		1.026	ug/L	0.03388	3.303	1.069
Sr4215_R		176.4	ug/L	2.868	1.625	12,210
Ti3349_A		50.51	ug/L	0.3107	0.6151	1,355
Tl1908_A		-1.487	ug/L	0.3409	22.92	-2.351
V_2924_A		3.904	ug/L	0.04411	1.130	36.89
Zn2062_A		18.17	ug/L	0.08791	0.4838	53.42
Y_3600_R		18,217	Cts/S	104.89	0.57577	18,217
Y_2243_A		8,068.4	Cts/S	3.3205	0.041155	8,068.4
Y_3600_A		141,740	Cts/S	155.82	0.10993	141,740

SO8892-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:46:39PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8892-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:46:39PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.001332	ug/L	0.2647	19,880	-27.18
Al3961_R		833.1	ug/L	1.582	0.1898	933.5
As1891_A		-0.3603	ug/L	0.8129	225.6	-3.479
B_2089_A		5.390	ug/L	0.4831	8.963	11.75
Ba4554_R		41.81	ug/L	0.4178	0.9993	2,680
Be3130_R		0.06779	ug/L	0.05242	77.32	0.1031
Ca3158_R	W	79,470	ug/L	815.2	1.026	102,200
Cd2265_A		0.03259	ug/L	0.01077	33.06	2.578
Co2286_A		3.206	ug/L	0.02674	0.8342	15.23
Cr2677_A		4.344	ug/L	0.3018	6.948	48.07
Cu3273_A		6.122	ug/L	0.2615	4.271	40.01
Fe2599_R		1,049	ug/L	9.108	0.8685	2,083
K_7664_R		5,613	ug/L	16.04	0.2857	3,262
Li6707_R		11.53	ug/L	0.3907	3.389	113.0
Mg2025_A		19,380	ug/L	78.23	0.4037	6,566
Mn2576_R		84.16	ug/L	0.8678	1.031	946.9
Mo2020_A		0.6880	ug/L	0.1755	25.52	2.405
Na5895_R	W	44,650	ug/L	418.1	0.9364	85,290
Ni2316_A		11.69	ug/L	0.1422	1.216	22.36
Pb2203_A		3.764	ug/L	0.1369	3.637	2.975
Sb2068_A		0.8416	ug/L	0.3494	41.52	0.5794
Se1960_A		2.686	ug/L	1.089	40.52	3.201
Si2516_R		11,680	ug/L	121.2	1.037	6,661
Sn1899_A		2.034	ug/L	0.1966	9.662	1.573
Sr4215_R		502.1	ug/L	5.794	1.154	35,000
Ti3349_A		33.51	ug/L	0.03752	0.1120	886.8
Tl1908_A		-0.2102	ug/L	0.2542	121.0	-1.476
V_2924_A		1.657	ug/L	0.3211	19.38	12.79
Zn2062_A		27.36	ug/L	0.1130	0.4130	79.89
Y_3600_R		18,292	Cts/S	62.004	0.33897	18,292
Y_2243_A		8,025.8	Cts/S	7.9007	0.098442	8,025.8
Y_3600_A		140,030	Cts/S	315.80	0.22552	140,030

SO8892-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:51:00PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.8050	ug/L	0.1062	13.20	-5.567
Al3961_R		-181.2	ug/L	2.401	1.325	73.55
As1891_A		0.6958	ug/L	0.007170	1.031	-2.855
B_2089_A		54.71	ug/L	0.1828	0.3340	76.86
Ba4554_R		200.5	ug/L	1.718	0.8571	12,370
Be3130_R		0.1183	ug/L	0.02652	22.42	7.106
Ca3158_R	W	300,600	ug/L	7,437	2.474	374,100
Cd2265_A		-0.05068	ug/L	0.03080	60.77	0.2308
Co2286_A		16.72	ug/L	0.2905	1.738	63.11
Cr2677_A		2.440	ug/L	0.1169	4.793	34.14
Cu3273_A		4.729	ug/L	0.02691	0.5691	23.32
Fe2599_R		449.0	ug/L	1.626	0.3622	870.9
K_7664_R		9,388	ug/L	32.75	0.3489	5,335
Li6707_R		94.79	ug/L	0.9031	0.9527	889.4
Mg2025_A	W	29,790	ug/L	63.17	0.2120	9,510
Mn2576_R	W	9,477	ug/L	69.44	0.7328	102,300
Mo2020_A		8.676	ug/L	0.04313	0.4971	25.59
Na5895_R	F	267,200	ug/L	1,499	0.5609	493,500
Ni2316_A		27.49	ug/L	0.7665	2.788	49.96

SO8892-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:51:00PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.7279	ug/L	0.7120	97.82	0.1423
Sb2068_A		-0.06415	ug/L	0.7242	1,129	0.05936
Se1960_A		1.108	ug/L	1.778	160.4	3.931
Si2516_R		10,770	ug/L	54.38	0.5048	5,955
Sn1899_A		0.07791	ug/L	0.5321	682.9	0.5510
Sr4215_R	W	1,142	ug/L	8.778	0.7686	77,080
Ti3349_A		0.4874	ug/L	0.005492	1.127	8.165
Tl1908_A		-1.751	ug/L	0.4598	26.26	-7.569
V_2924_A		1.482	ug/L	0.008056	0.5436	-23.68
Zn2062_A		1.426	ug/L	0.2728	19.13	4.107
Y_3600_R		17,698	Cts/S	42.212	0.23852	17,698
Y_2243_A		7,556.4	Cts/S	4.3224	0.057202	7,556.4
Y_3600_A		133,890	Cts/S	153.19	0.11442	133,890

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:55:33PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		503.6	ug/L	3.048	0.6052	10,410
Al3961_R		12,300	ug/L	541.9	4.407	13,250
As1891_A		501.1	ug/L	2.381	0.4751	192.5
B_2089_A		517.1	ug/L	1.769	0.3421	771.8
Ba4554_R		496.5	ug/L	22.57	4.545	32,790
Be3130_R		480.5	ug/L	22.97	4.781	49,350
Ca3158_R		12,460	ug/L	497.6	3.993	16,590
Cd2265_A		508.2	ug/L	3.209	0.6313	6,454
Co2286_A		505.7	ug/L	2.723	0.5385	2,011
Cr2677_A		497.3	ug/L	1.398	0.2811	5,599
Cu3273_A		512.3	ug/L	6.274	1.225	5,912
Fe2599_R		12,360	ug/L	579.1	4.686	25,280
K_7664_R		12,170	ug/L	409.8	3.367	7,435
Li6707_R		505.8	ug/L	26.26	5.192	5,077
Mg2025_A		12,830	ug/L	70.75	0.5516	4,499
Mn2576_R		482.5	ug/L	19.05	3.947	5,578
Mo2020_A		505.3	ug/L	2.149	0.4252	1,653
Na5895_R		12,500	ug/L	512.2	4.096	24,810
Ni2316_A		513.2	ug/L	2.532	0.4935	1,027
Pb2203_A		513.2	ug/L	3.278	0.6387	503.9
Sb2068_A		498.7	ug/L	1.052	0.2110	279.5
Se1960_A		508.0	ug/L	6.080	1.197	154.3
Si2516_R		12,390	ug/L	256.2	2.067	7,321
Sn1899_A		502.6	ug/L	2.433	0.4841	261.8
Sr4215_R		498.4	ug/L	23.91	4.798	36,000
Ti3349_A		494.6	ug/L	4.618	0.9338	13,560
Tl1908_A		510.9	ug/L	1.329	0.2600	307.6
V_2924_A		491.1	ug/L	1.084	0.2207	5,411
Zn2062_A		503.8	ug/L	2.599	0.5158	1,510
Y_3600_R		18,966	Cts/S	332.70	1.7542	18,966
Y_2243_A		8,262.9	Cts/S	2.2126	0.026777	8,262.9
Y_3600_A		144,300	Cts/S	839.23	0.58157	144,300

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:59:42PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 12:59:42PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.05414	ug/L	0.2018	372.7	-18.67
Al3961_R		5.939	ug/L	6.215	104.6	5.597
As1891_A		0.5273	ug/L	0.4865	92.26	-3.235
B_2089_A		1.541	ug/L	0.4298	27.89	6.636
Ba4554_R		-0.1324	ug/L	0.05648	42.66	8.278
Be3130_R		0.1388	ug/L	0.006359	4.582	9.438
Ca3158_R		1.184	ug/L	2.320	195.9	-17.72
Cd2265_A		0.07435	ug/L	0.008392	11.29	0.9289
Co2286_A		0.1171	ug/L	0.09093	77.67	3.244
Cr2677_A		0.1626	ug/L	0.02364	14.54	2.333
Cu3273_A		0.4452	ug/L	0.1101	24.74	-25.43
Fe2599_R		2.415	ug/L	1.319	54.65	19.70
K_7664_R		6.843	ug/L	23.64	345.5	-83.99
Li6707_R		0.6731	ug/L	0.02533	3.764	8.065
Mg2025_A		2.242	ug/L	1.254	55.94	-6.909
Mn2576_R		0.01473	ug/L	0.5284	3,587	2.490
Mo2020_A		0.6097	ug/L	0.1732	28.41	2.274
Na5895_R		25.91	ug/L	4.859	18.76	112.6
Ni2316_A		0.02395	ug/L	0.01997	83.37	-0.1251
Pb2203_A		0.2428	ug/L	0.6580	271.0	-0.3412
Sb2068_A		0.7771	ug/L	0.9322	119.9	0.5486
Se1960_A		1.808	ug/L	1.010	55.83	3.057
Si2516_R		37.34	ug/L	77.38	207.2	154.8
Sn1899_A		0.2631	ug/L	0.6608	251.1	0.7148
Sr4215_R		0.2428	ug/L	0.002157	0.8883	-34.82
Ti3349_A		0.6379	ug/L	0.1857	29.12	13.02
Tl1908_A		0.6330	ug/L	0.4759	75.19	-0.9657
V_2924_A		0.4117	ug/L	0.006754	1.640	-0.4552
Zn2062_A		0.1807	ug/L	0.1433	79.34	0.7822
Y_3600_R		18,587	Cts/S	0.65034	0.0034990	18,587
Y_2243_A		8,432.4	Cts/S	77.242	0.91601	8,432.4
Y_3600_A		147,310	Cts/S	1,031.4	0.70013	147,310

SO8894-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:04:07PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.04131	ug/L	0.09907	239.8	-27.49
Al3961_R		586.7	ug/L	13.02	2.219	677.3
As1891_A		-0.8943	ug/L	1.418	158.6	-3.658
B_2089_A		4.497	ug/L	0.1060	2.358	10.42
Ba4554_R		54.64	ug/L	0.6083	1.113	3,479
Be3130_R		0.08439	ug/L	0.01773	21.01	3.002
Ca3158_R	W	82,680	ug/L	1,485	1.795	105,800
Cd2265_A		0.04587	ug/L	0.001386	3.022	3.077
Co2286_A		0.8598	ug/L	0.01691	1.967	6.010
Cr2677_A		2.769	ug/L	0.1496	5.404	31.33
Cu3273_A		2.994	ug/L	0.1293	4.318	5.216
Fe2599_R		1,224	ug/L	22.65	1.851	2,416
K_7664_R		5,367	ug/L	84.96	1.583	3,099
Li6707_R		18.86	ug/L	0.1351	0.7165	183.1
Mg2025_A		20,520	ug/L	167.3	0.8153	6,898
Mn2576_R		305.1	ug/L	4.733	1.551	3,394
Mo2020_A		1.073	ug/L	0.009291	0.8655	3.587
Na5895_R	W	33,570	ug/L	515.7	1.536	63,810
Ni2316_A		1.949	ug/L	0.05489	2.816	3.488

SO8894-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:04:07PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.370	ug/L	0.6924	50.54	0.6983
Sb2068_A		1.406	ug/L	0.6888	49.00	0.8843
Se1960_A		1.783	ug/L	1.225	68.72	2.951
Si2516_R		11,660	ug/L	135.2	1.159	6,617
Sn1899_A		1.842	ug/L	0.3161	17.16	1.464
Sr4215_R		417.6	ug/L	4.482	1.073	28,950
Ti3349_A		13.41	ug/L	0.4850	3.616	354.8
Tl1908_A		0.3566	ug/L	0.04356	12.22	-1.264
V_2924_A		0.2415	ug/L	0.2451	101.5	-3.456
Zn2062_A		19.34	ug/L	0.3718	1.922	56.11
Y_3600_R		18,199	Cts/S	121.88	0.66971	18,199
Y_2243_A		7,962.8	Cts/S	15.705	0.19724	7,962.8
Y_3600_A		141,100	Cts/S	1,805.4	1.2796	141,100

SO8894-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:08:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1266	ug/L	0.02058	16.26	-42.05
Al3961_R		1,705	ug/L	30.30	1.778	1,807
As1891_A		-0.08008	ug/L	1.174	1,467	-3.568
B_2089_A		4.128	ug/L	0.2414	5.849	10.31
Ba4554_R		17.28	ug/L	0.2008	1.162	1,133
Be3130_R		0.1262	ug/L	0.06101	48.36	2.667
Ca3158_R		15,650	ug/L	279.4	1.786	20,400
Cd2265_A		0.04759	ug/L	0.01459	30.65	7.339
Co2286_A		0.9817	ug/L	0.01218	1.241	7.209
Cr2677_A		6.718	ug/L	0.1446	2.152	76.46
Cu3273_A		21.34	ug/L	0.08586	0.4024	218.6
Fe2599_R		3,125	ug/L	47.60	1.523	6,266
K_7664_R		1,400	ug/L	11.52	0.8229	759.3
Li6707_R		5.541	ug/L	0.5765	10.40	55.89
Mg2025_A		2,459	ug/L	2.084	0.08475	846.9
Mn2576_R		61.83	ug/L	0.8524	1.379	701.1
Mo2020_A		3.878	ug/L	0.05403	1.393	12.84
Na5895_R		12,500	ug/L	166.1	1.329	24,270
Ni2316_A		3.923	ug/L	0.1556	3.967	7.399
Pb2203_A		0.9869	ug/L	0.7310	74.08	0.2510
Sb2068_A		3.315	ug/L	1.590	47.97	2.038
Se1960_A		0.4019	ug/L	0.4043	100.6	2.636
Si2516_R		6,696	ug/L	73.65	1.100	3,930
Sn1899_A		2.281	ug/L	0.6409	28.10	1.738
Sr4215_R		69.63	ug/L	0.5315	0.7634	4,878
Ti3349_A		83.32	ug/L	4.097	4.917	2,280
Tl1908_A		-0.3388	ug/L	0.1414	41.73	-1.609
V_2924_A		2.941	ug/L	0.05592	1.901	27.61
Zn2062_A		17.06	ug/L	0.1928	1.130	51.08
Y_3600_R		18,554	Cts/S	133.63	0.72025	18,554
Y_2243_A		8,218.7	Cts/S	4.1553	0.050559	8,218.7
Y_3600_A		144,340	Cts/S	826.09	0.57233	144,340

SO8914-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:12:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8914-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:12:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.287	ug/L	0.04811	2.104	-359.6
Al3961_R		132.3	ug/L	1.539	1.164	169.2
As1891_A	W	1,817	ug/L	0.05276	0.002903	695.7
B_2089_A		79.73	ug/L	0.3470	0.4352	118.2
Ba4554_R		28.22	ug/L	0.4742	1.681	1,820
Be3130_R		-0.005413	ug/L	0.01364	251.9	-5.148
Ca3158_R	W	36,380	ug/L	473.1	1.300	46,950
Cd2265_A		-1.007	ug/L	0.1294	12.85	96.06
Co2286_A		16.31	ug/L	0.2453	1.504	67.19
Cr2677_A		0.1560	ug/L	0.01838	11.78	10.54
Cu3273_A		-4.094	ug/L	0.2920	7.133	-38.26
Fe2599_R	W	51,250	ug/L	637.8	1.245	101,400
K_7664_R		6,160	ug/L	79.75	1.295	3,601
Li6707_R		6.787	ug/L	0.2585	3.809	67.38
Mg2025_A		5,554	ug/L	12.81	0.2307	1,902
Mn2576_R	W	3,089	ug/L	39.67	1.284	34,560
Mo2020_A		1.277	ug/L	0.04701	3.682	4.133
Na5895_R		16,300	ug/L	258.8	1.588	31,290
Ni2316_A		7.620	ug/L	0.1283	1.683	10.81
Pb2203_A		1.317	ug/L	0.1962	14.90	0.9467
Sb2068_A		-0.3323	ug/L	0.2381	71.64	1.149
Se1960_A		-0.9219	ug/L	0.3671	39.82	3.484
Si2516_R		11,140	ug/L	143.2	1.285	6,378
Sn1899_A		0.9670	ug/L	0.6521	67.43	1.047
Sr4215_R		357.9	ug/L	4.649	1.299	25,020
Ti3349_A		4.238	ug/L	0.6166	14.55	110.7
Tl1908_A		-0.7245	ug/L	0.08302	11.46	-3.657
V_2924_A		2.125	ug/L	0.04028	1.896	5.240
Zn2062_A		2.944	ug/L	0.05267	1.789	8.904
Y_3600_R		18,358	Cts/S	49.273	0.26840	18,358
Y_2243_A		8,128.9	Cts/S	8.7358	0.10747	8,128.9
Y_3600_A		143,300	Cts/S	239.38	0.16705	143,300

SO8914-001L

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:17:09PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.697	ug/L	1.500	88.44	-92.14
Al3961_R		175.6	ug/L	19.29	10.98	42.58
As1891_A		1,779	ug/L	13.21	0.7428	138.2
B_2089_A		83.13	ug/L	1.706	2.052	28.95
Ba4554_R		28.23	ug/L	1.381	4.890	379.1
Be3130_R		0.2249	ug/L	0.2363	105.1	0.02618
Ca3158_R		36,760	ug/L	619.7	1.686	9,512
Cd2265_A		-1.240	ug/L	0.2582	20.83	19.36
Co2286_A		16.58	ug/L	0.1836	1.108	16.34
Cr2677_A		-0.07057	ug/L	1.112	1,576	2.019
Cu3273_A		-1.572	ug/L	0.4729	30.09	-26.27
Fe2599_R		51,470	ug/L	858.7	1.668	20,470
K_7664_R		5,997	ug/L	182.2	3.038	633.6
Li6707_R		8.552	ug/L	0.7726	9.034	18.13
Mg2025_A		5,535	ug/L	5.805	0.1049	386.5
Mn2576_R		3,124	ug/L	67.96	2.176	7,020
Mo2020_A		2.107	ug/L	1.327	63.00	1.598
Na5895_R		16,340	ug/L	307.8	1.884	6,347
Ni2316_A		6.767	ug/L	0.1956	2.890	1.746

SO8914-001L

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:17:09PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.4270	ug/L	3.161	740.4	-0.6236
Sb2068_A		7.671	ug/L	2.221	28.95	1.235
Se1960_A		4.029	ug/L	4.975	123.5	3.027
Si2516_R		10,820	ug/L	94.03	0.8693	1,350
Sn1899_A		3.645	ug/L	0.2268	6.223	0.9586
Sr4215_R		356.3	ug/L	4.432	1.244	4,961
Ti3349_A		2.864	ug/L	0.8832	30.84	11.14
Tl1908_A		-2.521	ug/L	3.224	127.9	-2.065
V_2924_A		2.724	ug/L	0.6235	22.89	-1.666
Zn2062_A		7.561	ug/L	0.2213	2.927	4.847
Y_3600_R		18,434	Cts/S	134.88	0.73168	18,434
Y_2243_A		8,417.7	Cts/S	8.8315	0.10492	8,417.7
Y_3600_A		146,510	Cts/S	32.726	0.022337	146,510

SO8914-001A

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:21:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		494.5	ug/L	3.019	0.6105	9,601
Al3961_R		11,070	ug/L	131.8	1.190	11,500
As1891_A	W	2,283	ug/L	12.53	0.5491	872.4
B_2089_A		593.6	ug/L	2.336	0.3934	866.6
Ba4554_R		542.8	ug/L	8.700	1.603	34,460
Be3130_R		507.2	ug/L	9.395	1.852	50,070
Ca3158_R	W	41,090	ug/L	435.2	1.059	52,650
Cd2265_A		509.6	ug/L	2.536	0.4976	6,438
Co2286_A		527.5	ug/L	2.244	0.4254	2,058
Cr2677_A		504.7	ug/L	0.9618	0.1906	5,524
Cu3273_A		522.8	ug/L	4.645	0.8886	5,891
Fe2599_R	W	55,430	ug/L	858.8	1.549	108,900
K_7664_R		16,190	ug/L	151.8	0.9378	9,538
Li6707_R		542.4	ug/L	9.732	1.794	5,235
Mg2025_A		11,000	ug/L	24.90	0.2265	3,788
Mn2576_R	W	3,494	ug/L	42.10	1.205	38,810
Mo2020_A		523.2	ug/L	1.990	0.3803	1,678
Na5895_R		21,610	ug/L	238.5	1.104	41,170
Ni2316_A		523.2	ug/L	2.617	0.5001	1,024
Pb2203_A		514.6	ug/L	2.558	0.4972	495.9
Sb2068_A		508.0	ug/L	4.394	0.8651	280.3
Se1960_A		514.6	ug/L	5.607	1.090	154.5
Si2516_R		11,240	ug/L	150.6	1.340	6,391
Sn1899_A		513.1	ug/L	3.791	0.7388	262.1
Sr4215_R		869.6	ug/L	17.70	2.035	60,430
Ti3349_A		513.7	ug/L	1.838	0.3578	13,680
Tl1908_A		506.6	ug/L	3.353	0.6619	297.3
V_2924_A		510.1	ug/L	1.539	0.3016	5,446
Zn2062_A		510.7	ug/L	3.679	0.7204	1,501
Y_3600_R		18,228	Cts/S	213.46	1.1711	18,228
Y_2243_A		8,104.2	Cts/S	21.839	0.26948	8,104.2
Y_3600_A		140,120	Cts/S	619.67	0.44223	140,120

SO8914-001P

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:25:39PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8914-001P

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:25:39PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		54.91	ug/L	0.3261	0.5939	696.9
Al3961_R		2,371	ug/L	29.12	1.228	2,460
As1891_A	W	1,921	ug/L	24.86	1.294	737.7
B_2089_A		611.4	ug/L	9.432	1.543	884.3
Ba4554_R	W	2,243	ug/L	15.37	0.6856	140,600
Be3130_R		54.57	ug/L	0.1705	0.3124	5,318
Ca3158_R	W	40,420	ug/L	462.1	1.143	51,170
Cd2265_A		260.7	ug/L	3.608	1.384	3,366
Co2286_A		543.9	ug/L	6.841	1.258	2,135
Cr2677_A		208.6	ug/L	0.2686	0.1288	2,315
Cu3273_A		271.8	ug/L	0.2144	0.07886	3,102
Fe2599_R	W	53,760	ug/L	355.5	0.6613	104,400
K_7664_R		17,240	ug/L	200.4	1.162	10,040
Li6707_R		571.6	ug/L	0.7590	0.1328	5,450
Mg2025_A		10,690	ug/L	152.5	1.426	3,705
Mn2576_R	W	3,725	ug/L	40.19	1.079	40,880
Mo2020_A		108.7	ug/L	1.800	1.655	350.6
Na5895_R	W	25,230	ug/L	310.0	1.229	47,470
Ni2316_A		542.7	ug/L	7.866	1.450	1,063
Pb2203_A		107.2	ug/L	1.834	1.711	103.7
Sb2068_A		107.3	ug/L	1.494	1.392	58.23
Se1960_A		107.8	ug/L	0.08018	0.07436	35.63
Si2516_R		12,740	ug/L	212.4	1.667	7,140
Sn1899_A		526.2	ug/L	8.447	1.605	270.3
Sr4215_R		922.9	ug/L	6.030	0.6533	63,370
Ti3349_A		534.5	ug/L	1.405	0.2629	14,390
Tl1908_A		103.7	ug/L	2.176	2.097	59.18
V_2924_A		522.8	ug/L	2.633	0.5037	5,679
Zn2062_A		523.1	ug/L	7.326	1.401	1,547
Y_3600_R		18,009	Cts/S	236.66	1.3141	18,009
Y_2243_A		8,152.1	Cts/S	60.764	0.74538	8,152.1
Y_3600_A		141,710	Cts/S	125.97	0.088894	141,710

SO8914-001S

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:29:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		53.51	ug/L	0.5912	1.105	683.0
Al3961_R		2,235	ug/L	65.34	2.924	2,367
As1891_A	W	1,915	ug/L	4.838	0.2526	729.6
B_2089_A		603.5	ug/L	1.810	0.3000	866.0
Ba4554_R	W	2,134	ug/L	61.25	2.870	136,600
Be3130_R		51.79	ug/L	1.280	2.472	5,153
Ca3158_R	W	38,550	ug/L	837.0	2.171	49,820
Cd2265_A		257.3	ug/L	0.5832	0.2266	3,293
Co2286_A		534.3	ug/L	1.833	0.3431	2,080
Cr2677_A		206.5	ug/L	6.106	2.957	2,285
Cu3273_A		263.3	ug/L	7.283	2.766	2,996
Fe2599_R	W	51,570	ug/L	1,275	2.473	102,200
K_7664_R		16,410	ug/L	412.1	2.511	9,752
Li6707_R		546.2	ug/L	16.07	2.943	5,316
Mg2025_A		10,550	ug/L	28.87	0.2736	3,627
Mn2576_R	W	3,552	ug/L	91.20	2.568	39,800
Mo2020_A		106.4	ug/L	0.9510	0.8942	340.2
Na5895_R		23,990	ug/L	637.8	2.658	46,100
Ni2316_A		531.0	ug/L	1.718	0.3236	1,032

SO8914-001S

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:29:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		107.2	ug/L	0.3540	0.3303	102.9
Sb2068_A		105.3	ug/L	0.1282	0.1218	56.63
Se1960_A		105.1	ug/L	1.668	1.587	34.49
Si2516_R		12,120	ug/L	230.0	1.897	6,943
Sn1899_A		518.0	ug/L	2.310	0.4460	264.0
Sr4215_R		883.5	ug/L	26.30	2.977	61,930
Ti3349_A		521.8	ug/L	13.11	2.513	14,010
Tl1908_A		101.8	ug/L	0.6171	0.6063	57.65
V_2924_A		518.7	ug/L	15.13	2.916	5,621
Zn2062_A		515.7	ug/L	1.769	0.3431	1,513
Y_3600_R		18,385	Cts/S	122.29	0.66513	18,385
Y_2243_A		8,086.7	Cts/S	17.520	0.21666	8,086.7
Y_3600_A		141,390	Cts/S	2,535.0	1.7929	141,390

SO8914-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:34:01PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.602	ug/L	0.09061	3.482	-448.2
Al3961_R		-18.94	ug/L	2.656	14.03	21.20
As1891_A	W	2,411	ug/L	8.678	0.3599	922.0
B_2089_A		84.61	ug/L	0.3933	0.4649	124.9
Ba4554_R		33.57	ug/L	0.3988	1.188	2,158
Be3130_R		0.04140	ug/L	0.07201	173.9	-0.2284
Ca3158_R	W	47,120	ug/L	745.3	1.582	60,690
Cd2265_A		-1.253	ug/L	0.2599	20.75	119.0
Co2286_A		20.85	ug/L	0.1495	0.7172	84.87
Cr2677_A		-0.3043	ug/L	0.1342	44.09	7.183
Cu3273_A		-5.266	ug/L	0.2385	4.530	-42.43
Fe2599_R	W	63,640	ug/L	939.2	1.476	125,700
K_7664_R		6,932	ug/L	85.03	1.227	4,056
Li6707_R		8.016	ug/L	0.6144	7.664	79.19
Mg2025_A		7,296	ug/L	5.218	0.07152	2,495
Mn2576_R	W	3,563	ug/L	49.72	1.396	39,780
Mo2020_A		1.499	ug/L	0.003677	0.2453	4.805
Na5895_R		16,740	ug/L	259.0	1.547	32,070
Ni2316_A		8.514	ug/L	0.2382	2.797	11.58
Pb2203_A		0.8937	ug/L	0.3641	40.74	0.6093
Sb2068_A		-0.4451	ug/L	0.4996	112.2	1.384
Se1960_A		-1.235	ug/L	0.4574	37.03	3.667
Si2516_R		12,680	ug/L	105.3	0.8303	7,224
Sn1899_A		1.607	ug/L	0.03878	2.414	1.371
Sr4215_R		448.2	ug/L	4.257	0.9498	31,280
Ti3349_A		0.08231	ug/L	0.1211	147.1	-2.448
Tl1908_A		-0.7123	ug/L	0.4377	61.45	-3.931
V_2924_A		2.005	ug/L	0.08558	4.267	1.744
Zn2062_A		3.493	ug/L	0.1881	5.384	10.50
Y_3600_R		18,323	Cts/S	65.570	0.35786	18,323
Y_2243_A		8,108.1	Cts/S	1.4181	0.017490	8,108.1
Y_3600_A		143,750	Cts/S	828.79	0.57653	143,750

SO8914-002L

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:38:20PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8914-002L

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:38:20PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.313	ug/L	0.9270	70.59	-111.6
Al3961_R		24.96	ug/L	22.92	91.85	13.00
As1891_A		2,378	ug/L	4.937	0.2076	183.7
B_2089_A		89.57	ug/L	0.06961	0.07771	30.48
Ba4554_R		33.59	ug/L	0.3783	1.126	448.6
Be3130_R		0.04400	ug/L	0.1472	334.5	-3.559
Ca3158_R		47,600	ug/L	580.8	1.220	12,340
Cd2265_A		-1.604	ug/L	0.2998	18.69	23.51
Co2286_A		20.73	ug/L	0.4424	2.134	19.49
Cr2677_A		0.5116	ug/L	0.2791	54.56	3.669
Cu3273_A		-2.119	ug/L	0.7688	36.28	-25.38
Fe2599_R		63,730	ug/L	1,078	1.691	25,390
K_7664_R		6,849	ug/L	75.35	1.100	737.4
Li6707_R		9.469	ug/L	2.243	23.69	19.96
Mg2025_A		7,345	ug/L	29.47	0.4013	509.0
Mn2576_R		3,602	ug/L	50.55	1.403	8,107
Mo2020_A		2.160	ug/L	0.007678	0.3555	1.606
Na5895_R		16,850	ug/L	246.2	1.461	6,555
Ni2316_A		9.108	ug/L	0.6179	6.784	2.469
Pb2203_A		-3.046	ug/L	1.286	42.21	-1.121
Sb2068_A		4.244	ug/L	1.246	29.36	0.8977
Se1960_A		-4.623	ug/L	0.4234	9.159	2.528
Si2516_R		12,320	ug/L	37.10	0.3010	1,523
Sn1899_A		-0.3167	ug/L	1.730	546.3	0.5324
Sr4215_R		448.4	ug/L	8.182	1.825	6,266
Ti3349_A		-1.436	ug/L	0.9308	64.83	-12.64
Tl1908_A		-2.421	ug/L	3.735	154.3	-2.088
V_2924_A		2.860	ug/L	0.7634	26.69	-1.788
Zn2062_A		7.925	ug/L	0.5262	6.640	5.007
Y_3600_R		18,465	Cts/S	115.14	0.62355	18,465
Y_2243_A		8,313.6	Cts/S	10.771	0.12956	8,313.6
Y_3600_A		145,030	Cts/S	901.42	0.62155	145,030

SO8914-002A

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:42:41PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		495.7	ug/L	0.5024	0.1014	9,569
Al3961_R		11,080	ug/L	396.3	3.576	11,520
As1891_A	W	2,868	ug/L	2.927	0.1021	1,087
B_2089_A		599.4	ug/L	3.307	0.5517	866.5
Ba4554_R		557.4	ug/L	21.59	3.872	35,380
Be3130_R		513.5	ug/L	20.15	3.924	50,680
Ca3158_R	W	51,900	ug/L	1,846	3.558	66,480
Cd2265_A		508.8	ug/L	0.1316	0.02587	6,392
Co2286_A		532.4	ug/L	0.1433	0.02691	2,057
Cr2677_A		505.9	ug/L	0.04909	0.009702	5,559
Cu3273_A		520.5	ug/L	2.344	0.4504	5,896
Fe2599_R	W	67,870	ug/L	2,714	4.000	133,300
K_7664_R		17,150	ug/L	467.3	2.725	10,110
Li6707_R		548.7	ug/L	20.17	3.676	5,293
Mg2025_A		12,840	ug/L	37.35	0.2910	4,377
Mn2576_R	W	3,990	ug/L	133.6	3.348	44,310
Mo2020_A		525.4	ug/L	0.4782	0.09101	1,669
Na5895_R		22,330	ug/L	664.6	2.976	42,540
Ni2316_A		523.6	ug/L	0.1366	0.02610	1,014

SO8914-002A

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:42:41PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		516.5	ug/L	0.1825	0.03533	493.0
Sb2068_A		512.5	ug/L	0.4059	0.07921	280.4
Se1960_A		521.2	ug/L	0.9427	0.1809	155.2
Si2516_R		12,830	ug/L	387.5	3.022	7,272
Sn1899_A		515.9	ug/L	0.09557	0.01853	261.0
Sr4215_R		973.0	ug/L	40.29	4.140	67,600
Ti3349_A		509.2	ug/L	1.045	0.2052	13,610
Tl1908_A		508.9	ug/L	0.6582	0.1293	295.6
V_2924_A		511.5	ug/L	1.256	0.2456	5,479
Zn2062_A		510.1	ug/L	0.4780	0.09369	1,485
Y_3600_R		18,228	Cts/S	356.12	1.9537	18,228
Y_2243_A		8,026.8	Cts/S	6.1250	0.076308	8,026.8
Y_3600_A		140,630	Cts/S	624.74	0.44423	140,630

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:46:49PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		498.1	ug/L	1.469	0.2950	10,440
Al3961_R		12,670	ug/L	826.0	6.519	13,260
As1891_A		507.7	ug/L	0.6041	0.1190	196.1
B_2089_A		518.6	ug/L	0.8888	0.1714	778.1
Ba4554_R		512.6	ug/L	31.68	6.179	32,870
Be3130_R		499.1	ug/L	31.56	6.323	49,760
Ca3158_R		12,830	ug/L	811.9	6.329	16,590
Cd2265_A		510.1	ug/L	1.360	0.2665	6,513
Co2286_A		507.7	ug/L	1.692	0.3333	2,030
Cr2677_A		496.6	ug/L	1.824	0.3674	5,670
Cu3273_A		499.3	ug/L	2.176	0.4358	5,844
Fe2599_R		12,830	ug/L	849.7	6.623	25,470
K_7664_R		12,490	ug/L	735.4	5.887	7,413
Li6707_R		520.5	ug/L	35.53	6.826	5,073
Mg2025_A		12,770	ug/L	58.09	0.4548	4,505
Mn2576_R		497.2	ug/L	29.84	6.001	5,580
Mo2020_A		506.4	ug/L	1.426	0.2816	1,665
Na5895_R		12,710	ug/L	793.6	6.244	24,480
Ni2316_A		514.4	ug/L	0.6178	0.1201	1,035
Pb2203_A		514.6	ug/L	1.334	0.2592	507.9
Sb2068_A		501.0	ug/L	2.505	0.5001	282.3
Se1960_A		511.2	ug/L	1.479	0.2893	156.1
Si2516_R		12,690	ug/L	561.4	4.425	7,275
Sn1899_A		505.8	ug/L	3.530	0.6979	264.8
Sr4215_R		515.8	ug/L	32.65	6.329	36,180
Ti3349_A		488.5	ug/L	1.528	0.3128	13,590
Tl1908_A		511.6	ug/L	2.144	0.4190	309.7
V_2924_A		492.2	ug/L	1.449	0.2945	5,500
Zn2062_A		508.6	ug/L	0.4091	0.08044	1,532
Y_3600_R		18,432	Cts/S	810.83	4.3992	18,432
Y_2243_A		8,306.7	Cts/S	23.533	0.28330	8,306.7
Y_3600_A		146,360	Cts/S	470.96	0.32178	146,360

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:50:59PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:50:59PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1793	ug/L	0.3168	176.7	-16.12
Al3961_R		12.69	ug/L	10.87	85.65	12.64
As1891_A		-0.4954	ug/L	0.7339	148.2	-3.662
B_2089_A		1.883	ug/L	0.07614	4.043	7.175
Ba4554_R		0.2042	ug/L	0.2531	123.9	29.90
Be3130_R		0.2659	ug/L	0.002288	0.8607	22.11
Ca3158_R		4.453	ug/L	1.121	25.18	-13.39
Cd2265_A		0.1172	ug/L	0.08903	76.00	1.500
Co2286_A		0.1334	ug/L	0.006698	5.022	3.328
Cr2677_A		0.4385	ug/L	0.02378	5.423	5.518
Cu3273_A		0.5982	ug/L	0.03128	5.229	-23.68
Fe2599_R		6.479	ug/L	0.7389	11.40	27.71
K_7664_R		-21.97	ug/L	11.07	50.39	-100.9
Li6707_R		-0.8954	ug/L	2.124	237.2	-7.309
Mg2025_A		6.225	ug/L	2.390	38.40	-5.514
Mn2576_R		0.1511	ug/L	0.1514	100.2	4.016
Mo2020_A		0.6493	ug/L	0.1461	22.51	2.416
Na5895_R		4.811	ug/L	6.705	139.4	71.30
Ni2316_A		-0.01290	ug/L	0.1151	892.0	-0.2000
Pb2203_A		-0.9807	ug/L	0.09040	9.218	-1.583
Sb2068_A		1.732	ug/L	0.5024	29.01	1.098
Se1960_A		0.2052	ug/L	0.09552	46.55	2.582
Si2516_R		46.62	ug/L	81.64	175.1	159.3
Sn1899_A		0.6854	ug/L	0.7595	110.8	0.9408
Sr4215_R		0.4570	ug/L	0.08324	18.21	-19.53
Ti3349_A		0.7834	ug/L	0.3576	45.65	17.12
Tl1908_A		0.8954	ug/L	0.2714	30.31	-0.8097
V_2924_A		0.3109	ug/L	0.09008	28.97	-1.611
Zn2062_A		0.1229	ug/L	0.1017	82.71	0.6061
Y_3600_R		18,494	Cts/S	39.081	0.21131	18,494
Y_2243_A		8,471.8	Cts/S	31.783	0.37516	8,471.8
Y_3600_A		147,720	Cts/S	1,066.2	0.72175	147,720

SO8914-002P

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:55:23PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		55.00	ug/L	0.3477	0.6322	614.7
Al3961_R		2,132	ug/L	19.24	0.9027	2,242
As1891_A	W	2,554	ug/L	2.767	0.1084	956.3
B_2089_A		626.2	ug/L	0.5687	0.09082	881.8
Ba4554_R	W	2,193	ug/L	4.969	0.2266	138,700
Be3130_R		53.07	ug/L	0.08616	0.1623	5,216
Ca3158_R	W	49,540	ug/L	194.8	0.3932	63,240
Cd2265_A		263.7	ug/L	0.3474	0.1317	3,337
Co2286_A		554.1	ug/L	0.1430	0.02581	2,117
Cr2677_A		209.2	ug/L	0.1215	0.05806	2,306
Cu3273_A		267.2	ug/L	0.6708	0.2511	3,034
Fe2599_R	W	64,390	ug/L	75.80	0.1177	126,100
K_7664_R		17,590	ug/L	113.0	0.6424	10,330
Li6707_R		568.1	ug/L	0.6051	0.1065	5,462
Mg2025_A		12,640	ug/L	4.898	0.03876	4,260
Mn2576_R	W	4,069	ug/L	17.32	0.4257	45,030
Mo2020_A		110.5	ug/L	0.2176	0.1969	346.9
Na5895_R		24,970	ug/L	195.5	0.7832	47,380
Ni2316_A		544.4	ug/L	0.5569	0.1023	1,037

SO8914-002P

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:55:23PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		109.1	ug/L	1.153	1.056	102.9
Sb2068_A		109.0	ug/L	0.3876	0.3556	57.76
Se1960_A		107.7	ug/L	0.2559	0.2376	34.89
Si2516_R		13,790	ug/L	21.04	0.1526	7,779
Sn1899_A		542.5	ug/L	2.739	0.5049	271.3
Sr4215_R	W	1,002	ug/L	1.539	0.1535	69,410
Ti3349_A		529.0	ug/L	0.5755	0.1088	14,130
Tl1908_A		105.5	ug/L	1.093	1.036	58.48
V_2924_A		531.1	ug/L	0.9500	0.1789	5,726
Zn2062_A		526.9	ug/L	0.4463	0.08469	1,518
Y_3600_R		18,159	Cts/S	184.33	1.0151	18,159
Y_2243_A		7,937.3	Cts/S	5.9529	0.074999	7,937.3
Y_3600_A		140,650	Cts/S	67.541	0.048021	140,650

SO8914-002S

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 1:59:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		56.17	ug/L	0.6401	1.140	636.2
Al3961_R		2,158	ug/L	15.41	0.7140	2,284
As1891_A	W	2,541	ug/L	0.6852	0.02696	953.4
B_2089_A		631.7	ug/L	1.731	0.2740	891.3
Ba4554_R	W	2,244	ug/L	29.92	1.333	142,800
Be3130_R		55.45	ug/L	0.6285	1.133	5,483
Ca3158_R	W	49,630	ug/L	652.5	1.315	63,750
Cd2265_A		266.5	ug/L	0.1711	0.06418	3,379
Co2286_A		564.9	ug/L	0.9131	0.1616	2,163
Cr2677_A		212.0	ug/L	0.8626	0.4069	2,347
Cu3273_A		266.0	ug/L	0.5746	0.2160	3,036
Fe2599_R	W	65,080	ug/L	939.7	1.444	128,200
K_7664_R		17,710	ug/L	197.5	1.115	10,470
Li6707_R		582.6	ug/L	3.055	0.5245	5,636
Mg2025_A		12,730	ug/L	37.41	0.2939	4,301
Mn2576_R	W	4,106	ug/L	55.00	1.340	45,720
Mo2020_A		112.4	ug/L	0.09611	0.08554	353.5
Na5895_R		24,920	ug/L	274.5	1.102	47,570
Ni2316_A		552.2	ug/L	0.5990	0.1085	1,054
Pb2203_A		110.5	ug/L	0.4130	0.3736	104.4
Sb2068_A		111.4	ug/L	0.4776	0.4287	59.14
Se1960_A		110.3	ug/L	1.117	1.012	35.74
Si2516_R		13,960	ug/L	150.1	1.075	7,924
Sn1899_A		552.9	ug/L	0.5251	0.09497	277.1
Sr4215_R	W	1,019	ug/L	13.49	1.323	71,030
Ti3349_A		536.8	ug/L	0.7024	0.1309	14,410
Tl1908_A		107.9	ug/L	0.6248	0.5791	59.96
V_2924_A		542.9	ug/L	3.257	0.5999	5,880
Zn2062_A		533.6	ug/L	1.048	0.1963	1,540
Y_3600_R		18,271	Cts/S	4.8658	0.026632	18,271
Y_2243_A		7,953.4	Cts/S	3.0978	0.038950	7,953.4
Y_3600_A		141,310	Cts/S	281.81	0.19943	141,310

SO8914-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:03:47PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8914-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:03:47PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.07345	ug/L	0.2314	315.1	-46.38
Al3961_R		20.14	ug/L	2.246	11.15	33.72
As1891_A		2.703	ug/L	0.06153	2.276	-2.451
B_2089_A		190.6	ug/L	1.131	0.5933	277.8
Ba4554_R		30.92	ug/L	1.076	3.481	1,996
Be3130_R		0.05824	ug/L	0.02901	49.81	1.358
Ca3158_R		15,080	ug/L	450.1	2.985	19,480
Cd2265_A		-0.05198	ug/L	0.002152	4.140	6.526
Co2286_A		2.807	ug/L	0.05532	1.971	13.73
Cr2677_A		0.4375	ug/L	0.2667	60.95	5.965
Cu3273_A		0.6202	ug/L	0.5889	94.96	-20.03
Fe2599_R		3,389	ug/L	107.6	3.176	6,734
K_7664_R		9,193	ug/L	298.5	3.247	5,426
Li6707_R		1.574	ug/L	0.8134	51.66	16.88
Mg2025_A		2,372	ug/L	1.839	0.07754	810.8
Mn2576_R		337.6	ug/L	9.663	2.862	3,787
Mo2020_A		0.5559	ug/L	0.07033	12.65	2.002
Na5895_R		19,960	ug/L	623.3	3.122	38,370
Ni2316_A		2.100	ug/L	0.09383	4.469	3.696
Pb2203_A		-0.7618	ug/L	0.9229	121.1	-1.297
Sb2068_A		1.465	ug/L	0.1727	11.79	0.9871
Se1960_A		0.3215	ug/L	2.240	696.9	2.629
Si2516_R		4,609	ug/L	211.0	4.579	2,721
Sn1899_A		0.5726	ug/L	0.7796	136.2	0.8496
Sr4215_R		154.7	ug/L	5.639	3.646	10,800
Ti3349_A		0.7661	ug/L	0.02149	2.806	16.13
Tl1908_A		0.4568	ug/L	0.5512	120.7	-1.246
V_2924_A		0.5237	ug/L	0.1125	21.47	-0.6061
Zn2062_A		1.340	ug/L	0.1365	10.19	4.189
Y_3600_R		18,397	Cts/S	545.15	2.9633	18,397
Y_2243_A		8,159.6	Cts/S	28.166	0.34519	8,159.6
Y_3600_A		142,930	Cts/S	3,481.2	2.4355	142,930

SO8914-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:08:08PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.07752	ug/L	0.2086	269.1	-34.60
Al3961_R		11.21	ug/L	4.196	37.43	25.49
As1891_A		0.5124	ug/L	0.2670	52.11	-3.231
B_2089_A		195.9	ug/L	1.877	0.9581	284.2
Ba4554_R		33.05	ug/L	0.02089	0.06319	2,135
Be3130_R		0.03816	ug/L	0.03059	80.17	-0.6496
Ca3158_R		16,350	ug/L	0.2825	0.001728	21,150
Cd2265_A		-0.04072	ug/L	0.03342	82.07	4.174
Co2286_A		2.770	ug/L	0.1016	3.669	13.51
Cr2677_A		0.5990	ug/L	0.2103	35.10	7.748
Cu3273_A		0.7294	ug/L	0.2835	38.87	-19.83
Fe2599_R		2,226	ug/L	0.006821	0.0003060	4,434
K_7664_R		9,610	ug/L	21.78	0.2267	5,683
Li6707_R		0.8241	ug/L	0.1244	15.10	9.456
Mg2025_A		2,582	ug/L	19.19	0.7431	879.9
Mn2576_R		370.0	ug/L	0.2499	0.06754	4,155
Mo2020_A		0.3115	ug/L	0.06076	19.50	1.206
Na5895_R		20,960	ug/L	23.54	0.1123	40,320
Ni2316_A		2.195	ug/L	0.2645	12.05	3.953

SO8914-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:08:08PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.4106	ug/L	0.06309	15.37	-0.1585
Sb2068_A		1.290	ug/L	0.4051	31.40	0.8577
Se1960_A		1.066	ug/L	0.1224	11.49	2.822
Si2516_R		4,622	ug/L	37.59	0.8134	2,732
Sn1899_A		1.129	ug/L	0.4310	38.18	1.129
Sr4215_R		164.7	ug/L	0.8842	0.5370	11,520
Ti3349_A		0.2541	ug/L	0.01232	4.848	2.234
Tl1908_A		0.3289	ug/L	0.1881	57.19	-1.337
V_2924_A		0.4264	ug/L	0.2338	54.82	-1.755
Zn2062_A		1.837	ug/L	0.09935	5.409	5.636
Y_3600_R		18,409	Cts/S	100.04	0.54344	18,409
Y_2243_A		8,127.4	Cts/S	35.290	0.43421	8,127.4
Y_3600_A		143,680	Cts/S	98.143	0.068309	143,680

SO8914-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:12:29PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2574	ug/L	0.04205	16.34	-41.04
Al3961_R		13.29	ug/L	3.956	29.77	27.04
As1891_A		2.799	ug/L	0.8632	30.84	-2.426
B_2089_A		193.8	ug/L	0.4539	0.2343	283.0
Ba4554_R		32.34	ug/L	0.2718	0.8404	2,085
Be3130_R		0.05739	ug/L	0.01364	23.76	1.253
Ca3158_R		15,690	ug/L	83.76	0.5338	20,250
Cd2265_A		-0.07222	ug/L	0.02621	36.29	6.573
Co2286_A		2.909	ug/L	0.02080	0.7151	14.16
Cr2677_A		0.3846	ug/L	0.01636	4.253	5.517
Cu3273_A		0.8479	ug/L	0.007171	0.8458	-17.63
Fe2599_R		3,523	ug/L	29.41	0.8348	6,992
K_7664_R		9,475	ug/L	16.41	0.1732	5,589
Li6707_R		0.6571	ug/L	0.1425	21.69	7.814
Mg2025_A		2,450	ug/L	4.550	0.1857	839.9
Mn2576_R		352.9	ug/L	2.111	0.5984	3,953
Mo2020_A		0.4195	ug/L	0.01820	4.339	1.564
Na5895_R		20,690	ug/L	13.82	0.06680	39,730
Ni2316_A		2.290	ug/L	0.03753	1.639	4.069
Pb2203_A		-0.4205	ug/L	0.9554	227.2	-0.9640
Sb2068_A		0.4411	ug/L	0.4204	95.30	0.4224
Se1960_A		0.7960	ug/L	0.3088	38.80	2.779
Si2516_R		4,694	ug/L	10.01	0.2133	2,767
Sn1899_A		0.4337	ug/L	0.1363	31.42	0.7796
Sr4215_R		161.3	ug/L	1.463	0.9072	11,250
Ti3349_A		0.2390	ug/L	0.01428	5.976	1.835
Tl1908_A		-0.5137	ug/L	0.3762	73.25	-1.839
V_2924_A		0.3687	ug/L	0.1271	34.47	-2.395
Zn2062_A		1.368	ug/L	0.1142	8.345	4.281
Y_3600_R		18,368	Cts/S	32.644	0.17772	18,368
Y_2243_A		8,179.9	Cts/S	4.6377	0.056697	8,179.9
Y_3600_A		144,900	Cts/S	1,597.7	1.1026	144,900

SO8914-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:16:49PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8914-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:16:49PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1418	ug/L	0.01782	12.57	-33.68
Al3961_R		7.292	ug/L	3.803	52.16	21.21
As1891_A		0.5093	ug/L	0.7910	155.3	-3.241
B_2089_A		194.1	ug/L	1.358	0.6995	282.3
Ba4554_R		31.78	ug/L	0.04161	0.1309	2,077
Be3130_R		0.02822	ug/L	0.05808	205.8	-1.640
Ca3158_R		15,840	ug/L	112.2	0.7081	20,720
Cd2265_A		-0.002844	ug/L	0.005616	197.5	4.744
Co2286_A		2.772	ug/L	0.04158	1.500	13.54
Cr2677_A		0.3430	ug/L	0.06426	18.73	4.891
Cu3273_A		1.233	ug/L	0.09304	7.548	-14.03
Fe2599_R		2,268	ug/L	7.726	0.3406	4,568
K_7664_R		9,343	ug/L	94.73	1.014	5,585
Li6707_R		0.5115	ug/L	0.6391	125.0	6.498
Mg2025_A		2,548	ug/L	6.633	0.2603	869.8
Mn2576_R		357.3	ug/L	3.104	0.8688	4,058
Mo2020_A		0.4663	ug/L	0.06568	14.08	1.708
Na5895_R		20,180	ug/L	268.1	1.329	39,270
Ni2316_A		2.102	ug/L	0.004127	0.1963	3.780
Pb2203_A		-0.1729	ug/L	0.04123	23.85	-0.7250
Sb2068_A		0.8520	ug/L	0.9899	116.2	0.6209
Se1960_A		1.917	ug/L	1.203	62.75	3.077
Si2516_R		4,520	ug/L	17.35	0.3840	2,705
Sn1899_A		0.2500	ug/L	0.3514	140.6	0.6821
Sr4215_R		161.9	ug/L	0.5117	0.3161	11,450
Ti3349_A		-0.2360	ug/L	0.1609	68.16	-11.19
Tl1908_A		-0.4054	ug/L	0.5781	142.6	-1.768
V_2924_A		0.1753	ug/L	0.2281	130.1	-4.516
Zn2062_A		2.426	ug/L	0.1137	4.686	7.389
Y_3600_R		18,617	Cts/S	71.521	0.38416	18,617
Y_2243_A		8,143.8	Cts/S	2.8216	0.034647	8,143.8
Y_3600_A		144,150	Cts/S	729.80	0.50629	144,150

SO8914-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:21:09PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		4.026	ug/L	0.1663	4.132	-584.2
Al3961_R		-6.979	ug/L	2.062	29.55	26.62
As1891_A	W	1,142	ug/L	3.709	0.3247	426.5
B_2089_A		178.3	ug/L	0.3720	0.2086	255.2
Ba4554_R		64.75	ug/L	0.5882	0.9083	4,134
Be3130_R		0.01680	ug/L	0.01033	61.46	-2.600
Ca3158_R	W	39,160	ug/L	140.1	0.3578	50,280
Cd2265_A		-1.604	ug/L	0.1495	9.319	159.7
Co2286_A		25.88	ug/L	0.08367	0.3233	103.4
Cr2677_A		-0.8128	ug/L	0.1238	15.23	3.174
Cu3273_A		-6.941	ug/L	0.05798	0.8354	-44.53
Fe2599_R	W	85,970	ug/L	615.0	0.7154	169,300
K_7664_R		10,880	ug/L	46.16	0.4241	6,397
Li6707_R		1.091	ug/L	0.7616	69.78	12.01
Mg2025_A		6,132	ug/L	10.74	0.1751	2,069
Mn2576_R	W	2,829	ug/L	9.694	0.3426	31,480
Mo2020_A		3.458	ug/L	0.01022	0.2956	10.99
Na5895_R		18,870	ug/L	40.14	0.2126	36,040
Ni2316_A		3.706	ug/L	0.2760	7.446	0.4859

SO8914-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:21:09PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.675	ug/L	0.3406	12.73	2.406
Sb2068_A		0.1826	ug/L	1.617	885.5	2.157
Se1960_A		-1.238	ug/L	0.5541	44.75	3.811
Si2516_R		9,744	ug/L	18.87	0.1937	5,562
Sn1899_A		1.996	ug/L	0.2570	12.88	1.548
Sr4215_R		453.9	ug/L	3.913	0.8619	31,590
Ti3349_A		-0.3340	ug/L	0.05002	14.98	-13.68
Tl1908_A		-0.7372	ug/L	0.1277	17.33	-3.460
V_2924_A		2.391	ug/L	0.1029	4.301	8.033
Zn2062_A		4.148	ug/L	0.06097	1.470	12.26
Y_3600_R		18,263	Cts/S	189.92	1.0399	18,263
Y_2243_A		7,999.9	Cts/S	19.926	0.24908	7,999.9
Y_3600_A		142,800	Cts/S	473.35	0.33147	142,800

SO8914-008

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:25:26PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		3.563	ug/L	0.4022	11.29	-561.9
Al3961_R		-19.42	ug/L	2.489	12.82	12.17
As1891_A	W	1,118	ug/L	6.067	0.5424	418.0
B_2089_A		170.1	ug/L	0.2744	0.1613	243.8
Ba4554_R		61.05	ug/L	0.3874	0.6345	3,890
Be3130_R		0.03870	ug/L	0.04513	116.6	-0.4303
Ca3158_R	W	37,440	ug/L	37.15	0.09925	47,960
Cd2265_A		-1.543	ug/L	0.003140	0.2035	151.5
Co2286_A		24.73	ug/L	0.1215	0.4912	98.99
Cr2677_A		-0.3784	ug/L	0.1438	37.98	7.446
Cu3273_A		-6.910	ug/L	0.1349	1.953	-47.52
Fe2599_R	W	81,630	ug/L	475.6	0.5826	160,400
K_7664_R		10,450	ug/L	17.88	0.1712	6,122
Li6707_R		1.251	ug/L	0.7001	55.99	13.50
Mg2025_A		5,876	ug/L	20.37	0.3467	1,983
Mn2576_R	W	2,708	ug/L	2.423	0.08946	30,060
Mo2020_A		3.373	ug/L	0.2009	5.956	10.74
Na5895_R		18,130	ug/L	31.88	0.1759	34,540
Ni2316_A		3.306	ug/L	0.2836	8.579	0.04389
Pb2203_A		2.650	ug/L	0.4470	16.87	2.363
Sb2068_A		-0.2739	ug/L	0.2223	81.15	1.814
Se1960_A		-1.743	ug/L	0.7593	43.56	3.581
Si2516_R		9,363	ug/L	22.45	0.2398	5,338
Sn1899_A		1.691	ug/L	0.8253	48.81	1.396
Sr4215_R		432.2	ug/L	3.217	0.7443	30,000
Ti3349_A		-0.4364	ug/L	0.01384	3.171	-16.48
Tl1908_A		-0.9161	ug/L	1.153	125.8	-3.492
V_2924_A		2.054	ug/L	0.3274	15.93	4.905
Zn2062_A		3.036	ug/L	0.06761	2.227	9.036
Y_3600_R		18,222	Cts/S	103.59	0.56847	18,222
Y_2243_A		8,004.9	Cts/S	3.4950	0.043661	8,004.9
Y_3600_A		143,020	Cts/S	42.618	0.029798	143,020

SO8914-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:29:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8914-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:29:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		3.247	ug/L	0.7371	22.70	-395.9
Al3961_R		184.9	ug/L	14.01	7.578	218.4
As1891_A	W	1,897	ug/L	11.33	0.5973	719.6
B_2089_A		78.00	ug/L	0.2531	0.3245	114.7
Ba4554_R		31.18	ug/L	1.875	6.014	1,959
Be3130_R		0.06530	ug/L	0.07149	109.5	1.685
Ca3158_R	W	36,540	ug/L	1,833	5.017	45,960
Cd2265_A		-1.346	ug/L	0.4857	36.10	106.5
Co2286_A		11.15	ug/L	0.08665	0.7769	46.80
Cr2677_A		0.1007	ug/L	0.07331	72.80	9.203
Cu3273_A		-3.695	ug/L	0.1964	5.314	-28.14
Fe2599_R	W	58,620	ug/L	2,827	4.822	113,100
K_7664_R		6,891	ug/L	326.6	4.740	3,937
Li6707_R		1.480	ug/L	1.103	74.56	15.55
Mg2025_A		5,557	ug/L	19.37	0.3486	1,886
Mn2576_R	W	1,461	ug/L	72.45	4.959	15,920
Mo2020_A		1.902	ug/L	0.07655	4.025	6.195
Na5895_R		18,110	ug/L	896.1	4.949	33,870
Ni2316_A		3.313	ug/L	0.3062	9.240	1.798
Pb2203_A		1.149	ug/L	0.9990	86.95	0.8082
Sb2068_A		-0.2989	ug/L	0.07764	25.98	1.330
Se1960_A		-1.316	ug/L	0.2851	21.66	3.203
Si2516_R		12,410	ug/L	622.0	5.010	6,913
Sn1899_A		1.124	ug/L	0.5411	48.15	1.117
Sr4215_R		377.0	ug/L	17.65	4.682	25,700
Ti3349_A		4.673	ug/L	0.2364	5.058	122.7
Tl1908_A		-0.8225	ug/L	0.7715	93.79	-2.707
V_2924_A		1.582	ug/L	0.2504	15.83	5.241
Zn2062_A		80.34	ug/L	0.2938	0.3657	235.1
Y_3600_R		17,907	Cts/S	469.51	2.6220	17,907
Y_2243_A		8,056.3	Cts/S	13.267	0.16468	8,056.3
Y_3600_A		143,470	Cts/S	1,771.3	1.2346	143,470

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:34:02PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		499.6	ug/L	6.235	1.248	10,370
Al3961_R		12,490	ug/L	60.88	0.4876	13,130
As1891_A		509.2	ug/L	1.294	0.2542	195.1
B_2089_A		508.3	ug/L	0.5252	0.1033	756.9
Ba4554_R		505.1	ug/L	2.971	0.5883	32,540
Be3130_R		507.4	ug/L	1.174	0.2314	50,830
Ca3158_R		12,550	ug/L	56.93	0.4534	16,310
Cd2265_A		498.8	ug/L	0.5932	0.1189	6,319
Co2286_A		507.2	ug/L	0.2445	0.04819	2,012
Cr2677_A		499.4	ug/L	5.682	1.138	5,650
Cu3273_A		486.4	ug/L	7.317	1.504	5,641
Fe2599_R		12,700	ug/L	78.35	0.6170	25,340
K_7664_R		12,320	ug/L	22.15	0.1798	7,342
Li6707_R		515.8	ug/L	2.693	0.5220	5,051
Mg2025_A		12,840	ug/L	19.82	0.1544	4,492
Mn2576_R		495.2	ug/L	1.868	0.3772	5,584
Mo2020_A		504.9	ug/L	1.335	0.2643	1,647
Na5895_R		12,380	ug/L	66.28	0.5354	23,960
Ni2316_A		505.2	ug/L	0.1018	0.02015	1,009

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:34:02PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		506.7	ug/L	0.7386	0.1458	496.1
Sb2068_A		507.1	ug/L	3.172	0.6256	283.5
Se1960_A		507.8	ug/L	0.02191	0.004315	153.9
Si2516_R		12,830	ug/L	190.2	1.482	7,390
Sn1899_A		513.8	ug/L	0.7882	0.1534	266.9
Sr4215_R		509.7	ug/L	2.409	0.4726	35,920
Ti3349_A		488.7	ug/L	9.064	1.855	13,470
Tl1908_A		515.1	ug/L	2.644	0.5134	309.3
V_2924_A		504.7	ug/L	7.289	1.444	5,591
Zn2062_A		497.9	ug/L	0.2582	0.05185	1,488
Y_3600_R		18,495	Cts/S	68.557	0.37069	18,495
Y_2243_A		8,241.6	Cts/S	4.2318	0.051347	8,241.6
Y_3600_A		145,040	Cts/S	1,621.4	1.1179	145,040

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:38:10PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1880	ug/L	0.07929	42.17	-15.92
Al3961_R		7.471	ug/L	1.027	13.74	7.189
As1891_A		0.1227	ug/L	0.6174	503.1	-3.379
B_2089_A		0.9466	ug/L	0.2770	29.26	5.717
Ba4554_R		-0.004039	ug/L	0.1533	3,796	16.58
Be3130_R		0.1980	ug/L	0.0002100	0.1062	15.37
Ca3158_R		0.8701	ug/L	4.409	506.8	-18.11
Cd2265_A		0.08447	ug/L	0.01324	15.68	1.059
Co2286_A		0.2094	ug/L	0.1333	63.69	3.602
Cr2677_A		0.3950	ug/L	0.2940	74.43	4.948
Cu3273_A		0.4692	ug/L	0.1890	40.29	-25.17
Fe2599_R		4.269	ug/L	0.3016	7.065	23.37
K_7664_R		-22.58	ug/L	6.556	29.04	-101.6
Li6707_R		-0.7814	ug/L	0.4785	61.24	-6.220
Mg2025_A		5.037	ug/L	2.373	47.10	-5.876
Mn2576_R		-0.07316	ug/L	0.1315	179.8	1.495
Mo2020_A		0.4731	ug/L	0.3493	73.83	1.810
Na5895_R		3.000	ug/L	0.4802	16.01	68.01
Ni2316_A		0.03099	ug/L	0.2403	775.5	-0.1104
Pb2203_A		-0.1462	ug/L	0.1638	112.0	-0.7311
Sb2068_A		1.119	ug/L	0.1057	9.438	0.7387
Se1960_A		0.05629	ug/L	0.8442	1,500	2.511
Si2516_R		53.18	ug/L	69.42	130.5	163.6
Sn1899_A		0.4194	ug/L	0.2781	66.29	0.7923
Sr4215_R		0.2750	ug/L	0.1446	52.58	-32.49
Ti3349_A		0.6601	ug/L	0.1390	21.06	13.78
Tl1908_A		0.3519	ug/L	0.1663	47.26	-1.134
V_2924_A		0.4108	ug/L	0.2886	70.26	-0.5340
Zn2062_A		0.2615	ug/L	0.01485	5.679	1.022
Y_3600_R		18,549	Cts/S	96.238	0.51883	18,549
Y_2243_A		8,387.0	Cts/S	56.297	0.67124	8,387.0
Y_3600_A		147,750	Cts/S	6,171.9	4.1773	147,750

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,076
Analyst Name: EP
Acquire Date: 1/5/2022 2:42:34PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

KATAHDIN ANALYTICAL SERVICES, LLC
METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: I (Thermo iCAP 6500) **ANALYST**: EP **ANALYSIS DATE**: 01/06/2022

METHOD: ICP
- ☑ 200.7
- ☑ 6010
- ☑ DOD
- ☐ _____

FILE NAME: IPA06A

REVIEWED
for 01-10-22
KATAHDIN ANALYTICAL
METALS SECTION

The pHs of all samples that were tested by direct analysis in this analytical run were checked just prior to analysis and confirmed to be <2. The time of preservation of these samples was checked in the "Measured Turbidity and Preservation of Incoming Samples" logbook to verify that they had been preserved at least 16 hours prior to analysis. These verifications were performed by _____ (initals) on _____ (date).

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
Cal. Blk/ICB/CCB	MW20733	12/20/2021	12/20/2022	0 ug/L
Standard 1	MW20722	12/14/2021	02/04/2022	Varies by Element
ICV	MW20710	12/09/2021	01/27/2022	Varies by Element
PQL	MW20737	12/22/2021	03/22/2022	Varies by Element
LRS1	MW20736	12/22/2021	03/22/2022	Varies by Element
LRS2	MW20724	12/17/2021	03/17/2022	Varies by Element
ICSA	MW20738	12/22/2021	03/22/2022	Varies by Element
ICSAB	MW20739	12/22/2021	01/26/2022	Varies by Element
CCV	MW20751	01/04/2022	02/04/2022	Varies by Element
Internal Standard	MW20706	12/08/2021	03/08/2022	5.0 mg/L Yttrium

Additional Comments and Notes:

for 01-10-22

Dilutions: Some samples were diluted based on history or due to interfering element concentrations.

Dilution preparations are as follows:

2x diln.: 4.0mL of sample (pipet M25) + 4.0mL of MW19407 (pipet M25)

5x diln.: 2.0 mL of sample (pipet M29) + 8.0 mL of MW20693 (pipet M29)

Post Spike: 0.123mL MW20532 (pipet M27) to 6.0mL of sample (pipet M29)

INSTRUMENT RUNLOG

Instrument: ICAP 6500

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Blank	1.000	IPA06A	01/06/2022	11:17	EP
Std 1	1.000	IPA06A	01/06/2022	11:22	EP
ICV	1.000	IPA06A	01/06/2022	11:26	EP
ICB	1.000	IPA06A	01/06/2022	11:30	EP
PQL	1.000	IPA06A	01/06/2022	11:34	EP
ICSA	1.000	IPA06A	01/06/2022	11:39	EP
ICSAB	1.000	IPA06A	01/06/2022	11:43	EP
CCV	1.000	IPA06A	01/06/2022	11:48	EP
CCB	1.000	IPA06A	01/06/2022	11:52	EP
LRS1	1.000	IPA06A	01/06/2022	11:56	EP
LRS2	1.000	IPA06A	01/06/2022	12:01	EP
CCV	1.000	IPA06A	01/06/2022	12:06	EP
CCB	1.000	IPA06A	01/06/2022	12:10	EP
LCSOOK24ICS1	1.000	IPA06A	01/06/2022	12:14	EP
PBSOK24ICS1	1.000	IPA06A	01/06/2022	12:19	EP
LCSWOK30ICW1	1.000	IPA06A	01/06/2022	12:23	EP
PBWOK30ICW1	1.000	IPA06A	01/06/2022	12:27	EP
LCSOOL01ICS1	1.000	IPA06A	01/06/2022	12:32	EP
PBSOL01ICS1	1.000	IPA06A	01/06/2022	12:36	EP
LCSOOL06ICS1	1.000	IPA06A	01/06/2022	12:40	EP
PBSOL06ICS1	1.000	IPA06A	01/06/2022	12:44	EP
LCSOOL08ICS1	1.000	IPA06A	01/06/2022	12:49	EP
PBSOL08ICS1	1.000	IPA06A	01/06/2022	12:53	EP
CCV	1.000	IPA06A	01/06/2022	12:57	EP
CCB	1.000	IPA06A	01/06/2022	13:02	EP
LCSWOL08ICW2	1.000	IPA06A	01/06/2022	13:06	EP
PBWOL08ICW2	1.000	IPA06A	01/06/2022	13:10	EP
LCSWOL08ICW3	1.000	IPA06A	01/06/2022	13:15	EP
PBWOL08ICW3	1.000	IPA06A	01/06/2022	13:19	EP
LCSWPA05ICW1	1.000	IPA06A	01/06/2022	13:23	EP
PBWPA05ICW1	1.000	IPA06A	01/06/2022	13:27	EP
SO8135-001	5.000	IPA06A	01/06/2022	13:32	EP
SO8135-004	5.000	IPA06A	01/06/2022	13:36	EP
SO8135-006	5.000	IPA06A	01/06/2022	13:40	EP
SO8135-007	5.000	IPA06A	01/06/2022	13:45	EP
CCV	1.000	IPA06A	01/06/2022	13:49	EP
CCB	1.000	IPA06A	01/06/2022	13:53	EP
SO8135-005	1.000	IPA06A	01/06/2022	13:57	EP
SO8135-009	1.000	IPA06A	01/06/2022	14:02	EP
SO8260-002	5.000	IPA06A	01/06/2022	14:06	EP
SO8260-003	5.000	IPA06A	01/06/2022	14:11	EP
SO8329-002	5.000	IPA06A	01/06/2022	14:15	EP
SO8329-006	5.000	IPA06A	01/06/2022	14:19	EP
SO8329-007	5.000	IPA06A	01/06/2022	14:23	EP

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
SO8329-010	5.000	IPA06A	01/06/2022	14:28	EP
SO8329-011	5.000	IPA06A	01/06/2022	14:32	EP
SO8397-001	5.000	IPA06A	01/06/2022	14:36	EP
CCV	1.000	IPA06A	01/06/2022	14:41	EP
CCB	1.000	IPA06A	01/06/2022	14:45	EP
SO8397-002	5.000	IPA06A	01/06/2022	14:49	EP
SO8260-007	1.000	IPA06A	01/06/2022	14:53	EP
SO8329-005	1.000	IPA06A	01/06/2022	14:58	EP
SO8397-007	1.000	IPA06A	01/06/2022	15:02	EP
SO7393-001	1.000	IPA06A	01/06/2022	15:07	EP
SO7393-002	1.000	IPA06A	01/06/2022	15:11	EP
SO7393-003	1.000	IPA06A	01/06/2022	15:15	EP
SO7393-004	1.000	IPA06A	01/06/2022	15:20	EP
SO7393-005	1.000	IPA06A	01/06/2022	15:24	EP
SO8910-001	1.000	IPA06A	01/06/2022	15:28	EP
CCV	1.000	IPA06A	01/06/2022	15:33	EP
CCB	1.000	IPA06A	01/06/2022	15:37	EP
SO8892-001	2.000	IPA06A	01/06/2022	15:41	EP
SO8892-005	2.000	IPA06A	01/06/2022	15:46	EP
SO8914-010	1.000	IPA06A	01/06/2022	15:50	EP
SO8914-010L	5.000	IPA06A	01/06/2022	15:55	EP
SO8914-010A	1.000	IPA06A	01/06/2022	15:59	EP
SO8914-010P	1.000	IPA06A	01/06/2022	16:03	EP
SO8914-010S	1.000	IPA06A	01/06/2022	16:07	EP
SO8914-011	1.000	IPA06A	01/06/2022	16:12	EP
SO8914-012	1.000	IPA06A	01/06/2022	16:16	EP
SO8914-014	1.000	IPA06A	01/06/2022	16:20	EP
CCV	1.000	IPA06A	01/06/2022	16:25	EP
CCB	1.000	IPA06A	01/06/2022	16:29	EP
SO8921-001	1.000	IPA06A	01/06/2022	16:33	EP
SO8921-002	1.000	IPA06A	01/06/2022	16:38	EP
SO8921-005	1.000	IPA06A	01/06/2022	16:42	EP
SO8943-001	1.000	IPA06A	01/06/2022	16:47	EP
SO8943-002	1.000	IPA06A	01/06/2022	16:51	EP
SO8943-003	1.000	IPA06A	01/06/2022	16:56	EP
SO8943-004	1.000	IPA06A	01/06/2022	17:00	EP
SO8943-005	1.000	IPA06A	01/06/2022	17:04	EP
SO8943-006	1.000	IPA06A	01/06/2022	17:09	EP
SO8943-007	1.000	IPA06A	01/06/2022	17:13	EP
CCV	1.000	IPA06A	01/06/2022	17:17	EP
CCB	1.000	IPA06A	01/06/2022	17:21	EP
SO8943-008	1.000	IPA06A	01/06/2022	17:26	EP
SO8944-001	1.000	IPA06A	01/06/2022	17:30	EP
SO8945-001	1.000	IPA06A	01/06/2022	17:35	EP
SO8946-001	1.000	IPA06A	01/06/2022	17:39	EP
SO8946-002	1.000	IPA06A	01/06/2022	17:43	EP
CCV	1.000	IPA06A	01/06/2022	17:48	EP

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
CCB	1.000	IPA06A	01/06/2022	17:52	EP
PQL	1.000	IPA06A	01/06/2022	17:56	EP
ICSA	1.000	IPA06A	01/06/2022	18:01	EP
ICSAB	1.000	IPA06A	01/06/2022	18:05	EP
CCV	1.000	IPA06A	01/06/2022	18:10	EP
CCB	1.000	IPA06A	01/06/2022	18:14	EP

Intensity Report

Author:

Published: 1/8/2022 8:35:38AM

Notes:

Blank

Method Name: FAST-2016_NO_AU Method Revision: 1,077

Analyst Name: EP

Acquire Date: 1/6/2022 11:17:51AM Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.0001230	Cts/S	0.00001600	13.13	-18.10
Al3961_R		-0.0003470	Cts/S	0.0001520	43.81	-6.247
As1891_A		-0.0001820	Cts/S	0.00005100	28.30	-1.569
B_2089_A		0.0005280	Cts/S	0.00003500	6.660	4.564
Ba4554_R		0.0006990	Cts/S	0.0004110	58.74	12.56
Be3130_R		-0.0001210	Cts/S	0.0001230	101.4	-2.202
Ca3158_R		-0.001143	Cts/S	0.0003650	31.91	-20.56
Cd2265_A		-0.00005500	Cts/S	0.00001400	26.12	-0.4765
Co2286_A		0.0003740	Cts/S	0.00001500	4.083	3.231
Cr2677_A		0.000001000	Cts/S	0.000005000	439.9	-0.1778
Cu3273_A		-0.0002290	Cts/S	0.00001500	6.343	-33.73
Fe2599_R		0.0002870	Cts/S	0.00007500	26.01	5.186
K_7664_R		-0.005270	Cts/S	0.0007110	13.48	-94.96
Li6707_R		0.00001600	Cts/S	0.0002890	1,857	0.3182
Mg2025_A		-0.0009270	Cts/S	0.00003300	3.612	-8.003
Mn2576_R		0.00006800	Cts/S	0.0001260	183.9	1.217
Mo2020_A		-0.00005000	Cts/S	0.000004000	7.463	-0.4319
Na5895_R		0.001576	Cts/S	0.0003830	24.33	28.38
Ni2316_A		0.00007200	Cts/S	0.0001140	158.7	0.6243
Pb2203_A		-0.0001490	Cts/S	0.00001000	6.413	-1.283
Sb2068_A		0.00009500	Cts/S	0.00003000	31.71	0.8188
Se1960_A		0.0002840	Cts/S	0.00003200	11.13	2.454
Si2516_R		0.001349	Cts/S	0.0002720	20.15	24.37
Sn1899_A		0.00008200	Cts/S	0.00002300	27.69	0.7123
Sr4215_R		-0.007996	Cts/S	0.0005350	6.690	-144.3
Ti3349_A		-0.00007400	Cts/S	0.00001000	13.45	-10.95
Tl1908_A		-0.0001160	Cts/S	0.0000	0.1082	-0.9988
V_2924_A		-0.00001100	Cts/S	0.0000	2.476	-1.694
Zn2062_A		0.00001200	Cts/S	0.00004700	384.3	0.1070
Y_3600_R		18,036	Cts/S	260.12	1.4422	18,036
Y_2243_A		8,636.1	Cts/S	55.287	0.64019	8,636.1
Y_3600_A		147,450	Cts/S	227.12	0.15404	147,450

Std 1

Method Name: FAST-2016_NO_AU Method Revision: 1,077

Analyst Name: EP

Acquire Date: 1/6/2022 11:22:13AM Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1450	Cts/S	0.0001590	0.1098	20,500
Al3961_R		1.453	Cts/S	0.02198	1.512	25,690
As1891_A		0.04680	Cts/S	0.0002240	0.4794	394.2
B_2089_A		0.1828	Cts/S	0.0008130	0.4446	1,540
Ba4554_R		3.614	Cts/S	0.06281	1.738	63,870
Be3130_R		5.230	Cts/S	0.1076	2.057	92,430
Ca3158_R		1.791	Cts/S	0.02124	1.186	31,660
Cd2265_A		1.580	Cts/S	0.007204	0.4559	13,310
Co2286_A		0.4729	Cts/S	0.002129	0.4502	3,983
Cr2677_A		0.07960	Cts/S	0.00006900	0.08714	11,250
Cu3273_A		0.08211	Cts/S	0.00001600	0.01917	11,610
Fe2599_R		2.794	Cts/S	0.04734	1.694	49,380
K_7664_R		0.8239	Cts/S	0.01154	1.401	14,560
Li6707_R		0.6122	Cts/S	0.01166	1.905	10,820

Std 1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 11:22:13AM
Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Mg2025_A		1.015	Cts/S	0.003522	0.3470	8,552
Mn2576_R		0.6106	Cts/S	0.007970	1.305	10,790
Mo2020_A		0.3923	Cts/S	0.001761	0.4490	3,304
Na5895_R		2.721	Cts/S	0.03649	1.341	48,090
Ni2316_A		0.2461	Cts/S	0.0007870	0.3198	2,073
Pb2203_A		0.1208	Cts/S	0.0005650	0.4678	1,017
Sb2068_A		0.06556	Cts/S	0.0003520	0.5373	552.3
Se1960_A		0.03624	Cts/S	0.0001160	0.3201	305.3
Si2516_R		0.6969	Cts/S	0.007378	1.059	12,320
Sn1899_A		0.06042	Cts/S	0.0003080	0.5101	509.0
Sr4215_R		4.014	Cts/S	0.07927	1.975	70,930
Ti3349_A		0.1895	Cts/S	0.0005950	0.3141	26,790
Tl1908_A		0.07048	Cts/S	0.0004270	0.6055	593.7
V_2924_A		0.07811	Cts/S	0.0003350	0.4291	11,040
Zn2062_A		0.3727	Cts/S	0.001804	0.4841	3,140
Y_3600_R		17,675	Cts/S	77.130	0.43639	17,675
Y_2243_A		8,423.9	Cts/S	19.142	0.22723	8,423.9
Y_3600_A		141,380	Cts/S	285.36	0.20184	141,380

ICV

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 11:26:20AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		396.7	ug/L	1.514	0.3817	8,251
Al3961_R		10,110	ug/L	164.5	1.627	10,510
As1891_A		391.5	ug/L	1.131	0.2889	152.8
B_2089_A		403.9	ug/L	0.2469	0.06112	622.8
Ba4554_R		397.5	ug/L	3.619	0.9106	25,700
Be3130_R		396.3	ug/L	2.036	0.5136	37,070
Ca3158_R		10,240	ug/L	171.9	1.678	13,110
Cd2265_A		405.9	ug/L	0.2475	0.06097	5,383
Co2286_A		411.3	ug/L	0.3918	0.09528	1,634
Cr2677_A		399.7	ug/L	1.723	0.4312	4,569
Cu3273_A		403.2	ug/L	0.8884	0.2203	4,736
Fe2599_R		10,020	ug/L	92.24	0.9202	20,040
K_7664_R		13,690	ug/L	263.8	1.927	8,027
Li6707_R		403.7	ug/L	0.09217	0.02283	4,421
Mg2025_A		10,090	ug/L	2.516	0.02494	3,434
Mn2576_R		398.6	ug/L	5.655	1.419	4,354
Mo2020_A		413.9	ug/L	0.05960	0.01440	1,363
Na5895_R		10,160	ug/L	176.3	1.736	19,790
Ni2316_A		411.4	ug/L	0.1667	0.04052	850.2
Pb2203_A		410.4	ug/L	0.02694	0.006565	415.3
Sb2068_A		404.6	ug/L	0.7737	0.1912	223.0
Se1960_A		408.6	ug/L	2.684	0.6568	125.7
Si2516_R		10,100	ug/L	155.2	1.537	4,953
Sn1899_A		410.3	ug/L	0.2206	0.05376	208.5
Sr4215_R		396.7	ug/L	1.738	0.4381	28,390
Ti3349_A		405.0	ug/L	0.01358	0.003353	11,020
Tl1908_A		412.7	ug/L	0.1234	0.02990	243.6
V_2924_A		405.1	ug/L	2.034	0.5021	4,543
Zn2062_A		407.1	ug/L	0.8105	0.1991	1,274
Y_3600_R		17,888	Cts/S	54.498	0.30467	17,888
Y_2243_A		8,393.3	Cts/S	16.829	0.20051	8,393.3
Y_3600_A		143,630	Cts/S	365.99	0.25481	143,630

ICB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 11:30:29AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1058	ug/L	0.5087	480.7	-15.92
Al3961_R		2.068	ug/L	6.339	306.5	-3.997
As1891_A		-0.7322	ug/L	0.08539	11.66	-1.864
B_2089_A		1.941	ug/L	0.1198	6.171	7.559
Ba4554_R		0.1517	ug/L	0.1655	109.1	22.18
Be3130_R		0.1223	ug/L	0.007013	5.734	9.187
Ca3158_R		0.3529	ug/L	1.392	394.5	-19.90
Cd2265_A		0.04869	ug/L	0.008828	18.13	0.1948
Co2286_A		-0.05050	ug/L	0.06617	131.0	3.023
Cr2677_A		0.2305	ug/L	0.06327	27.45	2.522
Cu3273_A		0.4149	ug/L	0.3384	81.57	-28.67
Fe2599_R		4.319	ug/L	1.742	40.33	13.70
K_7664_R		10.74	ug/L	22.52	209.7	-87.60
Li6707_R		0.7674	ug/L	0.4778	62.26	8.624
Mg2025_A		0.7338	ug/L	0.9406	128.2	-7.726
Mn2576_R		-0.3872	ug/L	0.3977	102.7	-3.016
Mo2020_A		0.7045	ug/L	0.07414	10.52	1.951
Na5895_R		1.393	ug/L	1.842	132.3	30.80
Ni2316_A		0.02751	ug/L	0.03199	116.3	0.6875
Pb2203_A		0.8295	ug/L	0.1297	15.63	-0.4139
Sb2068_A		-0.4713	ug/L	0.03047	6.465	0.5474
Se1960_A		-0.7104	ug/L	0.5999	84.44	2.229
Si2516_R		14.12	ug/L	7.918	56.07	30.89
Sn1899_A		0.3002	ug/L	0.05402	18.00	0.8659
Sr4215_R		0.02610	ug/L	0.02731	104.6	-140.6
Ti3349_A		0.7157	ug/L	0.3054	42.67	8.997
Tl1908_A		0.1216	ug/L	0.9069	746.0	-0.9223
V_2924_A		-0.1237	ug/L	0.1345	108.7	-3.185
Zn2062_A		0.09548	ug/L	0.06815	71.38	0.4113
Y_3600_R		17,816	Cts/S	154.53	0.86738	17,816
Y_2243_A		8,614.7	Cts/S	17.852	0.20723	8,614.7
Y_3600_A		147,430	Cts/S	1,901.6	1.2898	147,430

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 11:34:53AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		9.690	ug/L	0.4740	4.892	182.5
Al3961_R		314.7	ug/L	3.711	1.179	315.1
As1891_A		7.320	ug/L	1.082	14.78	1.371
B_2089_A		51.15	ug/L	0.4928	0.9634	81.92
Ba4554_R		5.357	ug/L	0.1467	2.738	352.3
Be3130_R		5.153	ug/L	0.005409	0.1050	470.9
Ca3158_R		108.2	ug/L	3.190	2.948	116.2
Cd2265_A		5.211	ug/L	0.06459	1.239	69.05
Co2286_A		10.30	ug/L	0.05794	0.5625	44.31
Cr2677_A		10.75	ug/L	0.01763	0.1640	121.3
Cu3273_A		26.48	ug/L	0.1363	0.5148	276.8
Fe2599_R		106.4	ug/L	1.473	1.385	213.9
K_7664_R		1,049	ug/L	2.648	0.2525	518.4
Li6707_R		102.2	ug/L	2.403	2.350	1,100
Mg2025_A		99.22	ug/L	0.1420	0.1431	26.58
Mn2576_R		4.723	ug/L	0.06385	1.352	51.82
Mo2020_A		10.68	ug/L	0.1204	1.128	34.96
Na5895_R		1,050	ug/L	5.793	0.5516	2,035
Ni2316_A		10.68	ug/L	0.02256	0.2113	22.81

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 11:34:53AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		4.790	ug/L	0.05646	1.179	3.618
Sb2068_A		8.810	ug/L	0.3719	4.221	5.121
Se1960_A		10.86	ug/L	1.611	14.84	5.697
Si2516_R		212.9	ug/L	5.862	2.753	125.8
Sn1899_A		103.8	ug/L	0.7400	0.7126	53.63
Sr4215_R		10.54	ug/L	0.2661	2.525	604.2
Ti3349_A		15.60	ug/L	0.1258	0.8060	409.4
Tl1908_A		14.49	ug/L	0.4221	2.913	7.660
V_2924_A		9.750	ug/L	0.5156	5.288	106.5
Zn2062_A		21.38	ug/L	0.07139	0.3339	67.45
Y_3600_R		17,567	Cts/S	53.919	0.30694	17,567
Y_2243_A		8,447.5	Cts/S	13.762	0.16291	8,447.5
Y_3600_A		141,990	Cts/S	127.20	0.089580	141,990

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 11:39:15AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.4320	ug/L	0.7622	176.4	-435.1
Al3961_R		534,600	ug/L	14,540	2.719	513,000
As1891_A		3.175	ug/L	0.3670	11.56	-12.09
B_2089_A		0.3305	ug/L	0.3566	107.9	4.242
Ba4554_R		1.639	ug/L	0.1844	11.25	109.5
Be3130_R		0.01031	ug/L	0.06389	619.5	-1.057
Ca3158_R		508,800	ug/L	15,690	3.084	602,900
Cd2265_A	W	-2.508	ug/L	1.009	40.24	357.8
Co2286_A		-0.3270	ug/L	0.1052	32.18	4.718
Cr2677_A		2.989	ug/L	0.2663	8.908	48.30
Cu3273_A		-3.004	ug/L	1.016	33.81	-36.71
Fe2599_R		199,100	ug/L	7,327	3.679	367,800
K_7664_R		-2.113	ug/L	15.85	750.3	-88.34
Li6707_R		11.06	ug/L	0.6535	5.911	112.1
Mg2025_A		490,800	ug/L	436.5	0.08893	145,000
Mn2576_R		0.7641	ug/L	0.3361	43.98	15.32
Mo2020_A		-1.962	ug/L	0.08594	4.379	-5.998
Na5895_R		78.35	ug/L	11.38	14.53	166.8
Ni2316_A		3.555	ug/L	0.2728	7.673	-7.185
Pb2203_A		0.9781	ug/L	1.276	130.5	-42.71
Sb2068_A		-0.8526	ug/L	0.8712	102.2	5.918
Se1960_A		2.012	ug/L	0.1565	7.782	9.139
Si2516_R		10.52	ug/L	2.417	22.98	12.07
Sn1899_A		3.830	ug/L	2.210	57.71	2.294
Sr4215_R	W	5.434	ug/L	0.07538	1.387	229.1
Ti3349_A		1.441	ug/L	0.003123	0.2167	24.69
Tl1908_A		-1.041	ug/L	0.4414	42.41	-0.7101
V_2924_A		3.037	ug/L	0.6645	21.88	23.41
Zn2062_A		6.982	ug/L	0.3912	5.603	19.14
Y_3600_R		16,533	Cts/S	227.64	1.3769	16,533
Y_2243_A		7,315.2	Cts/S	8.5503	0.11688	7,315.2
Y_3600_A		124,370	Cts/S	452.73	0.36402	124,370

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 11:43:49AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 11:43:49AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		221.1	ug/L	0.9514	0.4303	3,679
Al3961_R		467,300	ug/L	11,040	2.362	457,400
As1891_A		103.4	ug/L	0.5733	0.5545	24.33
B_2089_A		510.0	ug/L	1.821	0.3571	694.6
Ba4554_R		513.8	ug/L	3.291	0.6405	31,310
Be3130_R		504.9	ug/L	4.345	0.8606	44,520
Ca3158_R		445,100	ug/L	7,493	1.683	538,000
Cd2265_A		961.0	ug/L	6.170	0.6421	11,580
Co2286_A		482.0	ug/L	2.131	0.4421	1,698
Cr2677_A		502.6	ug/L	1.879	0.3739	5,072
Cu3273_A		534.6	ug/L	3.074	0.5751	5,547
Fe2599_R		174,600	ug/L	2,045	1.171	328,900
K_7664_R		21,540	ug/L	27.05	0.1256	11,950
Li6707_R		553.8	ug/L	8.869	1.602	5,715
Mg2025_A		441,800	ug/L	2,058	0.4657	132,600
Mn2576_R		488.4	ug/L	4.413	0.9037	5,039
Mo2020_A		506.8	ug/L	2.264	0.4467	1,477
Na5895_R		21,460	ug/L	28.98	0.1350	39,390
Ni2316_A		949.9	ug/L	4.858	0.5114	1,720
Pb2203_A		47.87	ug/L	2.261	4.723	4.013
Sb2068_A		634.2	ug/L	0.009827	0.001549	314.1
Se1960_A		50.76	ug/L	0.2892	0.5698	21.51
Si2516_R		2,129	ug/L	13.41	0.6300	991.7
Sn1899_A		501.1	ug/L	2.439	0.4868	225.2
Sr4215_R		518.9	ug/L	4.856	0.9358	35,050
Ti3349_A		517.8	ug/L	3.227	0.6233	12,390
Tl1908_A		92.37	ug/L	0.7291	0.7892	48.67
V_2924_A		510.0	ug/L	2.700	0.5294	5,030
Zn2062_A		951.8	ug/L	4.515	0.4744	2,637
Y_3600_R		16,859	Cts/S	108.79	0.64530	16,859
Y_2243_A		7,429.2	Cts/S	21.245	0.28597	7,429.2
Y_3600_A		126,370	Cts/S	538.36	0.42602	126,370

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 11:48:16AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		510.1	ug/L	1.627	0.3188	10,630
Al3961_R		12,810	ug/L	564.1	4.404	13,350
As1891_A		510.2	ug/L	0.4578	0.08973	200.8
B_2089_A		513.9	ug/L	2.347	0.4566	795.5
Ba4554_R		503.0	ug/L	21.01	4.177	32,610
Be3130_R		499.6	ug/L	20.58	4.119	46,860
Ca3158_R		13,130	ug/L	460.0	3.503	16,860
Cd2265_A		512.0	ug/L	1.884	0.3681	6,830
Co2286_A		517.5	ug/L	2.029	0.3921	2,067
Cr2677_A		513.0	ug/L	3.587	0.6993	5,874
Cu3273_A		502.7	ug/L	3.813	0.7585	5,921
Fe2599_R		12,840	ug/L	556.4	4.335	25,730
K_7664_R		12,650	ug/L	402.9	3.185	7,429
Li6707_R		503.7	ug/L	18.99	3.769	5,531
Mg2025_A		12,940	ug/L	22.95	0.1773	4,434
Mn2576_R		505.8	ug/L	19.75	3.905	5,540
Mo2020_A		514.8	ug/L	2.835	0.5507	1,705
Na5895_R		12,650	ug/L	474.2	3.749	24,710
Ni2316_A		517.8	ug/L	1.880	0.3630	1,076

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 11:48:16AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		516.8	ug/L	2.980	0.5766	526.3
Sb2068_A		510.7	ug/L	2.978	0.5832	283.0
Se1960_A		515.5	ug/L	0.4812	0.09334	158.9
Si2516_R		13,090	ug/L	482.0	3.682	6,428
Sn1899_A		522.0	ug/L	1.058	0.2028	266.6
Sr4215_R		502.0	ug/L	20.66	4.116	36,070
Ti3349_A		507.0	ug/L	2.469	0.4869	13,810
Tl1908_A		521.8	ug/L	3.163	0.6062	310.0
V_2924_A		508.0	ug/L	2.427	0.4779	5,706
Zn2062_A		514.8	ug/L	2.517	0.4889	1,620
Y_3600_R		17,942	Cts/S	389.05	2.1683	17,942
Y_2243_A		8,443.3	Cts/S	19.504	0.23100	8,443.3
Y_3600_A		143,850	Cts/S	829.92	0.57692	143,850

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 11:52:25AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3393	ug/L	0.02401	7.076	-10.76
Al3961_R		16.68	ug/L	4.025	24.12	11.11
As1891_A		-0.8215	ug/L	0.6654	81.00	-1.878
B_2089_A		2.017	ug/L	0.1423	7.055	7.596
Ba4554_R		0.3552	ug/L	0.1961	55.20	35.47
Be3130_R		0.1779	ug/L	0.07374	41.46	14.41
Ca3158_R		8.062	ug/L	6.310	78.27	-10.05
Cd2265_A		0.2250	ug/L	0.1342	59.65	2.563
Co2286_A		0.06034	ug/L	0.1010	167.4	3.434
Cr2677_A		0.3483	ug/L	0.1565	44.94	3.868
Cu3273_A		0.5325	ug/L	0.1610	30.24	-27.04
Fe2599_R		8.815	ug/L	1.071	12.15	22.73
K_7664_R		14.36	ug/L	16.00	111.5	-85.67
Li6707_R		-0.3680	ug/L	0.4735	128.7	-3.769
Mg2025_A		16.60	ug/L	2.165	13.05	-2.172
Mn2576_R		-0.1054	ug/L	0.4717	447.4	0.09331
Mo2020_A		1.094	ug/L	0.3540	32.36	3.228
Na5895_R		11.08	ug/L	1.699	15.33	49.68
Ni2316_A		0.4363	ug/L	0.1710	39.19	1.536
Pb2203_A		0.01901	ug/L	1.362	7,161	-1.247
Sb2068_A		-0.09150	ug/L	0.2160	236.1	0.7566
Se1960_A		1.893	ug/L	0.2835	14.97	2.998
Si2516_R		6.266	ug/L	5.085	81.17	27.15
Sn1899_A		-0.1589	ug/L	0.5436	342.2	0.6198
Sr4215_R		0.2378	ug/L	0.03397	14.28	-125.7
Ti3349_A		0.9806	ug/L	0.1043	10.64	16.32
Tl1908_A		0.1792	ug/L	1.378	768.7	-0.8773
V_2924_A		-0.1557	ug/L	0.2298	147.6	-3.534
Zn2062_A		0.3453	ug/L	0.02723	7.886	1.199
Y_3600_R		17,863	Cts/S	154.64	0.86569	17,863
Y_2243_A		8,511.4	Cts/S	1.6847	0.019793	8,511.4
Y_3600_A		146,100	Cts/S	906.88	0.62074	146,100

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 11:56:48AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 11:56:48AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2,070	ug/L	4.291	0.2072	41,390
Al3961_R		28.14	ug/L	0.4582	1.629	220.0
As1891_A		21,100	ug/L	16.23	0.07691	8,014
B_2089_A		21,270	ug/L	3.277	0.01540	30,760
Ba4554_R		20,290	ug/L	250.4	1.234	1,289,000
Be3130_R		19,960	ug/L	230.8	1.156	1,835,000
Ca3158_R		5.889	ug/L	0.7395	12.56	2.777
Cd2265_A		19,790	ug/L	202.2	1.022	250,900
Co2286_A		20,930	ug/L	4.004	0.01914	79,680
Cr2677_A		20,750	ug/L	13.52	0.06517	228,600
Cu3273_A		20,480	ug/L	151.7	0.7405	233,200
Fe2599_R		6.524	ug/L	0.2740	4.199	17.87
K_7664_R		-11.90	ug/L	0.2850	2.394	-99.60
Li6707_R		21,170	ug/L	59.15	0.2795	227,800
Mg2025_A		38.52	ug/L	11.38	29.53	991.0
Mn2576_R		20,030	ug/L	92.31	0.4608	215,100
Mo2020_A		5,229	ug/L	0.4653	0.008897	16,530
Na5895_R		34.56	ug/L	0.5201	1.505	93.81
Ni2316_A		20,910	ug/L	0.6640	0.003175	41,290
Pb2203_A		21,370	ug/L	20.21	0.09457	20,880
Sb2068_A		20,940	ug/L	12.14	0.05798	11,040
Se1960_A		21,570	ug/L	0.8932	0.004141	6,240
Si2516_R		167.0	ug/L	34.62	20.74	220.5
Sn1899_A		20,860	ug/L	32.10	0.1539	10,150
Sr4215_R		20,860	ug/L	250.7	1.201	1,475,000
Ti3349_A		20,140	ug/L	98.70	0.4902	528,200
Tl1908_A		20,630	ug/L	1.285	0.006230	11,740
V_2924_A		20,160	ug/L	1.360	0.006747	219,000
Zn2062_A		20,060	ug/L	12.24	0.06099	60,260
Y_3600_R		17,582	Cts/S	49.481	0.28143	17,582
Y_2243_A		8,059.5	Cts/S	46.804	0.58073	8,059.5
Y_3600_A		138,440	Cts/S	135.66	0.097987	138,440

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:01:38PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-1.494	ug/L	0.0000	0.0000	-582.7
Al3961_R	F	592,400	ug/L	0.0000	0.0000	588,800
As1891_A		45.11	ug/L	0.0000	0.0000	-0.8721
B_2089_A		14.08	ug/L	0.0000	0.0000	78.73
Ba4554_R		3.832	ug/L	0.0000	0.0000	249.0
Be3130_R		2.433	ug/L	0.0000	0.0000	215.6
Ca3158_R		535,000	ug/L	0.0000	0.0000	656,500
Cd2265_A		-43.38	ug/L	0.0000	0.0000	23.34
Co2286_A		-1.099	ug/L	0.0000	0.0000	10.91
Cr2677_A		1.281	ug/L	0.0000	0.0000	37.30
Cu3273_A		-1.259	ug/L	0.0000	0.0000	10.35
Fe2599_R		260,600	ug/L	0.0000	0.0000	498,500
K_7664_R	F	344,500	ug/L	0.0000	0.0000	195,500
Li6707_R		15.02	ug/L	0.0000	0.0000	157.7
Mg2025_A	F	128.0	ug/L	0.0000	0.0000	121.5
Mn2576_R		21.60	ug/L	0.0000	0.0000	48.63
Mo2020_A		0.3508	ug/L	0.0000	0.0000	2.254
Na5895_R	F	230,200	ug/L	0.0000	0.0000	428,700
Ni2316_A		10.64	ug/L	0.0000	0.0000	4.210

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:01:38PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		54.57	ug/L	0.0000	0.0000	2.060
Sb2068_A		-15.09	ug/L	0.0000	0.0000	1.685
Se1960_A		-31.84	ug/L	0.0000	0.0000	5.393
Si2516_R	F	56,970	ug/L	0.0000	0.0000	26,600
Sn1899_A		0.01057	ug/L	0.0000	0.0000	2.149
Sr4215_R		9.608	ug/L	0.0000	0.0000	524.6
Ti3349_A		12.44	ug/L	0.0000	0.0000	284.5
Tl1908_A		0.006267	ug/L	0.0000	0.0000	-0.5261
V_2924_A		8.513	ug/L	0.0000	0.0000	75.57
Zn2062_A		0.6379	ug/L	0.0000	0.0000	6.464
Y_3600_R		17,119	Cts/S	0.00000	0.00000	17,119
Y_2243_A		25,880	Cts/S	0.00000	0.00000	25,880
Y_3600_A		124,600	Cts/S	0.00000	0.00000	124,600

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:06:17PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		519.8	ug/L	5.314	1.022	10,680
Al3961_R		12,970	ug/L	59.47	0.4585	13,460
As1891_A		515.2	ug/L	1.675	0.3250	201.7
B_2089_A	W	541.4	ug/L	2.633	0.4863	832.5
Ba4554_R		515.4	ug/L	5.921	1.149	33,260
Be3130_R		514.1	ug/L	6.256	1.217	48,010
Ca3158_R	W	13,240	ug/L	40.71	0.3074	16,930
Cd2265_A		516.7	ug/L	1.026	0.1986	6,857
Co2286_A		521.0	ug/L	0.7977	0.1531	2,070
Cr2677_A		521.6	ug/L	3.341	0.6405	5,888
Cu3273_A		517.6	ug/L	7.072	1.366	6,010
Fe2599_R		13,010	ug/L	144.8	1.114	25,960
K_7664_R		12,990	ug/L	18.41	0.1417	7,602
Li6707_R		515.5	ug/L	4.718	0.9152	5,635
Mg2025_A		13,020	ug/L	65.23	0.5010	4,436
Mn2576_R		513.2	ug/L	2.683	0.5227	5,597
Mo2020_A		518.8	ug/L	0.5187	0.09999	1,709
Na5895_R		12,980	ug/L	6.234	0.04802	25,250
Ni2316_A		522.3	ug/L	0.02683	0.005136	1,080
Pb2203_A		523.5	ug/L	1.312	0.2507	530.3
Sb2068_A		515.9	ug/L	0.02677	0.005189	284.4
Se1960_A		520.6	ug/L	0.2235	0.04293	159.6
Si2516_R	W	13,540	ug/L	40.31	0.2976	6,621
Sn1899_A		526.2	ug/L	2.610	0.4960	267.3
Sr4215_R		514.1	ug/L	5.910	1.150	36,770
Ti3349_A		517.2	ug/L	4.658	0.9008	13,890
Tl1908_A		525.4	ug/L	1.568	0.2985	310.4
V_2924_A		510.3	ug/L	6.713	1.315	5,650
Zn2062_A		518.1	ug/L	0.5183	0.1000	1,622
Y_3600_R		17,857	Cts/S	40.478	0.22668	17,857
Y_2243_A		8,397.4	Cts/S	35.137	0.41843	8,397.4
Y_3600_A		141,800	Cts/S	713.13	0.50293	141,800

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:10:25PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:10:25PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1116	ug/L	0.1013	90.76	-15.68
Al3961_R		13.15	ug/L	11.22	85.35	7.588
As1891_A		0.2220	ug/L	0.9620	433.3	-1.457
B_2089_A	W	14.19	ug/L	0.7434	5.238	26.05
Ba4554_R		0.4005	ug/L	0.01454	3.630	39.08
Be3130_R		0.4557	ug/L	0.06592	14.47	41.07
Ca3158_R		7.209	ug/L	1.156	16.03	-11.40
Cd2265_A		0.4830	ug/L	0.05513	11.42	6.008
Co2286_A		0.5443	ug/L	0.01271	2.335	5.372
Cr2677_A		0.5279	ug/L	0.07643	14.48	5.988
Cu3273_A		0.7093	ug/L	0.3903	55.02	-25.02
Fe2599_R		8.403	ug/L	0.02837	0.3375	22.32
K_7664_R		62.98	ug/L	10.30	16.36	-57.94
Li6707_R		0.9949	ug/L	1.335	134.2	11.42
Mg2025_A		7.382	ug/L	1.181	16.00	-5.306
Mn2576_R		0.1235	ug/L	0.07032	56.94	2.618
Mo2020_A		1.355	ug/L	0.09748	7.192	4.093
Na5895_R		10.93	ug/L	1.022	9.349	50.35
Ni2316_A		0.5727	ug/L	0.08983	15.69	1.820
Pb2203_A		1.107	ug/L	0.03189	2.880	-0.1238
Sb2068_A		0.5920	ug/L	1.163	196.5	1.129
Se1960_A		2.390	ug/L	1.171	49.01	3.144
Si2516_R		10.27	ug/L	12.32	119.9	29.70
Sn1899_A		1.313	ug/L	0.7618	58.02	1.373
Sr4215_R		0.3854	ug/L	0.04131	10.72	-117.4
Ti3349_A		1.689	ug/L	0.03124	1.849	36.07
Tl1908_A		-0.5731	ug/L	0.5663	98.81	-1.325
V_2924_A		0.3314	ug/L	0.1077	32.51	2.054
Zn2062_A		0.6326	ug/L	0.1268	20.05	2.108
Y_3600_R		18,206	Cts/S	108.26	0.59464	18,206
Y_2243_A		8,496.5	Cts/S	1.5054	0.017718	8,496.5
Y_3600_A		146,690	Cts/S	419.45	0.28594	146,690

LCSOOK24ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:14:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.79	ug/L	0.01370	0.02644	1,040
Al3961_R		2,147	ug/L	61.28	2.854	2,215
As1891_A		104.1	ug/L	1.067	1.025	38.90
B_2089_A		534.7	ug/L	3.758	0.7029	794.8
Ba4554_R		2,138	ug/L	50.88	2.379	137,300
Be3130_R		52.77	ug/L	1.246	2.361	4,903
Ca3158_R		2,636	ug/L	80.91	3.070	3,339
Cd2265_A		263.5	ug/L	1.671	0.6342	3,422
Co2286_A		546.3	ug/L	4.995	0.9144	2,132
Cr2677_A		214.0	ug/L	0.8358	0.3906	2,414
Cu3273_A		270.1	ug/L	1.899	0.7031	3,115
Fe2599_R		1,082	ug/L	32.27	2.983	2,154
K_7664_R		10,630	ug/L	218.1	2.052	6,172
Li6707_R		547.8	ug/L	11.07	2.020	5,961
Mg2025_A		5,270	ug/L	49.85	0.9460	1,774
Mn2576_R		525.7	ug/L	14.43	2.745	5,710
Mo2020_A		112.1	ug/L	0.8960	0.7993	362.1
Na5895_R		7,972	ug/L	170.7	2.141	15,440
Ni2316_A		545.7	ug/L	3.676	0.6737	1,103

LCSOOK24ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:14:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		107.2	ug/L	0.4644	0.4333	105.7
Sb2068_A		107.9	ug/L	1.076	0.9975	56.23
Se1960_A		108.3	ug/L	0.08292	0.07654	34.50
Si2516_R		1,031	ug/L	20.75	2.013	526.6
Sn1899_A		592.3	ug/L	5.946	1.004	295.4
Sr4215_R		536.4	ug/L	11.97	2.231	38,210
Ti3349_A		538.1	ug/L	3.309	0.6149	14,440
Tl1908_A		107.4	ug/L	1.895	1.764	62.21
V_2924_A		534.1	ug/L	5.225	0.9784	5,948
Zn2062_A		528.0	ug/L	2.839	0.5377	1,624
Y_3600_R		17,778	Cts/S	217.69	1.2245	17,778
Y_2243_A		8,247.1	Cts/S	59.929	0.72666	8,247.1
Y_3600_A		141,740	Cts/S	297.67	0.21001	141,740

PBSOK24ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:19:02PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1163	ug/L	0.2250	193.4	-20.36
Al3961_R		13.09	ug/L	0.5611	4.285	7.482
As1891_A		1.326	ug/L	0.2146	16.18	-1.013
B_2089_A		7.995	ug/L	0.6094	7.622	16.61
Ba4554_R		0.5650	ug/L	0.01844	3.264	49.51
Be3130_R		0.09348	ug/L	0.002389	2.555	6.551
Ca3158_R		10.65	ug/L	2.637	24.75	-6.854
Cd2265_A		0.05399	ug/L	0.006104	11.31	0.2745
Co2286_A		0.1579	ug/L	0.1317	83.36	3.816
Cr2677_A		0.8974	ug/L	0.05576	6.213	10.20
Cu3273_A		0.9070	ug/L	0.1975	21.78	-22.40
Fe2599_R		9.758	ug/L	2.232	22.88	24.86
K_7664_R		74.05	ug/L	25.94	35.03	-50.78
Li6707_R		1.256	ug/L	0.1351	10.75	14.18
Mg2025_A		6.143	ug/L	0.7694	12.52	-5.743
Mn2576_R		0.3602	ug/L	0.1827	50.71	5.198
Mo2020_A		0.7759	ug/L	0.05145	6.631	2.157
Na5895_R		14.57	ug/L	0.1254	0.8607	57.09
Ni2316_A		0.5939	ug/L	0.1120	18.86	1.852
Pb2203_A		-0.07778	ug/L	0.1216	156.3	-1.341
Sb2068_A		-0.3613	ug/L	1.412	390.8	0.3268
Se1960_A		2.046	ug/L	0.2295	11.21	3.034
Si2516_R		10.26	ug/L	10.70	104.3	29.45
Sn1899_A		47.71	ug/L	0.3330	0.6980	25.11
Sr4215_R		0.2679	ug/L	0.1335	49.82	-125.0
Ti3349_A		1.361	ug/L	0.1337	9.822	26.68
Tl1908_A		-0.7200	ug/L	0.6511	90.42	-1.411
V_2924_A		-0.05049	ug/L	0.1432	283.7	-2.318
Zn2062_A		0.6005	ug/L	0.1426	23.75	2.002
Y_3600_R		18,061	Cts/S	118.95	0.65859	18,061
Y_2243_A		8,481.1	Cts/S	37.114	0.43760	8,481.1
Y_3600_A		145,280	Cts/S	827.69	0.56971	145,280

LCSWOK30ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:23:25PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LCSWOK30ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:23:25PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		52.72	ug/L	0.1673	0.3173	1,066
Al3961_R		2,184	ug/L	30.76	1.409	2,227
As1891_A		104.7	ug/L	2.127	2.031	39.31
B_2089_A		527.3	ug/L	3.171	0.6014	787.2
Ba4554_R		2,221	ug/L	17.05	0.7678	141,000
Be3130_R		54.77	ug/L	0.4751	0.8674	5,032
Ca3158_R		2,700	ug/L	33.62	1.245	3,382
Cd2265_A		264.5	ug/L	1.761	0.6659	3,449
Co2286_A		547.6	ug/L	2.954	0.5394	2,146
Cr2677_A		216.7	ug/L	1.003	0.4628	2,460
Cu3273_A		270.0	ug/L	0.6840	0.2533	3,134
Fe2599_R		1,124	ug/L	13.57	1.208	2,212
K_7664_R		10,750	ug/L	56.41	0.5247	6,173
Li6707_R		556.1	ug/L	4.706	0.8462	5,982
Mg2025_A		5,324	ug/L	12.45	0.2338	1,800
Mn2576_R		538.8	ug/L	6.089	1.130	5,786
Mo2020_A		109.9	ug/L	0.07599	0.06914	356.5
Na5895_R		8,129	ug/L	73.73	0.9071	15,570
Ni2316_A		548.2	ug/L	2.800	0.5107	1,113
Pb2203_A		108.3	ug/L	0.7048	0.6509	107.3
Sb2068_A		107.9	ug/L	0.1911	0.1771	56.83
Se1960_A		108.8	ug/L	0.03333	0.03064	34.78
Si2516_R		1,109	ug/L	3.990	0.3598	557.8
Sn1899_A		536.2	ug/L	2.375	0.4429	268.7
Sr4215_R		550.3	ug/L	3.061	0.5563	38,750
Ti3349_A		525.4	ug/L	0.4741	0.09024	14,190
Tl1908_A		107.9	ug/L	1.070	0.9918	62.74
V_2924_A		531.2	ug/L	1.271	0.2392	5,955
Zn2062_A		532.7	ug/L	3.558	0.6680	1,645
Y_3600_R		17,572	Cts/S	77.076	0.43862	17,572
Y_2243_A		8,282.3	Cts/S	36.131	0.43624	8,282.3
Y_3600_A		142,660	Cts/S	50.876	0.035661	142,660

PBWOK30ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:27:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1019	ug/L	0.2373	232.9	-15.72
Al3961_R		12.01	ug/L	8.512	70.90	6.348
As1891_A		-0.6850	ug/L	1.050	153.3	-1.809
B_2089_A		5.618	ug/L	0.2930	5.215	12.94
Ba4554_R		0.6254	ug/L	0.03086	4.935	53.53
Be3130_R		0.04953	ug/L	0.001376	2.778	2.428
Ca3158_R		32.52	ug/L	0.3314	1.019	21.51
Cd2265_A		0.06274	ug/L	0.008589	13.69	0.3833
Co2286_A		-0.001909	ug/L	0.08104	4,245	3.159
Cr2677_A		0.04906	ug/L	0.04353	88.73	0.3936
Cu3273_A		0.7933	ug/L	0.5175	65.23	-23.77
Fe2599_R		6.594	ug/L	1.474	22.35	18.52
K_7664_R		27.02	ug/L	10.30	38.10	-79.12
Li6707_R		1.298	ug/L	0.1366	10.53	14.66
Mg2025_A		6.440	ug/L	0.8441	13.11	-5.627
Mn2576_R		0.07731	ug/L	0.03670	47.47	2.089
Mo2020_A		0.3202	ug/L	0.01647	5.142	0.6389
Na5895_R		10.75	ug/L	6.954	64.70	49.65
Ni2316_A		-0.05303	ug/L	0.2057	387.8	0.5022

PBWOK30ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:27:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.3873	ug/L	0.4913	126.9	-0.8591
Sb2068_A		0.003603	ug/L	0.08733	2,424	0.7988
Se1960_A		0.7472	ug/L	0.3490	46.71	2.628
Si2516_R		14.82	ug/L	7.485	50.50	31.73
Sn1899_A		0.6251	ug/L	0.3687	58.98	1.015
Sr4215_R		0.2336	ug/L	0.1281	54.85	-127.7
Ti3349_A		0.8494	ug/L	0.05671	6.676	12.59
Tl1908_A		-0.4659	ug/L	0.5180	111.2	-1.255
V_2924_A		-0.1601	ug/L	0.03218	20.10	-3.514
Zn2062_A		2.834	ug/L	0.1309	4.620	9.035
Y_3600_R		18,089	Cts/S	27.714	0.15321	18,089
Y_2243_A		8,447.2	Cts/S	6.3039	0.074627	8,447.2
Y_3600_A		145,240	Cts/S	872.32	0.60059	145,240

LCSOOL01ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:32:02PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		52.22	ug/L	0.1942	0.3719	1,041
Al3961_R		2,183	ug/L	31.79	1.457	2,253
As1891_A		105.1	ug/L	0.1651	0.1570	38.98
B_2089_A		532.6	ug/L	1.840	0.3454	785.4
Ba4554_R		2,164	ug/L	15.91	0.7351	139,100
Be3130_R		52.95	ug/L	0.3996	0.7545	4,924
Ca3158_R		2,677	ug/L	20.37	0.7608	3,394
Cd2265_A		267.5	ug/L	0.4190	0.1566	3,446
Co2286_A		556.7	ug/L	1.097	0.1970	2,155
Cr2677_A		217.8	ug/L	3.950	1.813	2,440
Cu3273_A		276.1	ug/L	1.849	0.6697	3,162
Fe2599_R		1,094	ug/L	12.38	1.131	2,180
K_7664_R		10,790	ug/L	47.39	0.4392	6,270
Li6707_R		542.8	ug/L	5.560	1.024	5,910
Mg2025_A		5,346	ug/L	3.400	0.06360	1,786
Mn2576_R		534.7	ug/L	1.686	0.3152	5,811
Mo2020_A		113.5	ug/L	0.3329	0.2934	363.6
Na5895_R		8,069	ug/L	45.68	0.5660	15,640
Ni2316_A		553.8	ug/L	0.4171	0.07532	1,110
Pb2203_A		108.2	ug/L	0.2625	0.2427	105.9
Sb2068_A		109.5	ug/L	0.1060	0.09680	56.68
Se1960_A		108.9	ug/L	1.773	1.628	34.38
Si2516_R		1,077	ug/L	2.210	0.2052	549.4
Sn1899_A		587.6	ug/L	1.009	0.1718	290.7
Sr4215_R		534.1	ug/L	4.966	0.9298	38,060
Ti3349_A		540.3	ug/L	8.188	1.515	14,390
Tl1908_A		108.2	ug/L	0.7381	0.6824	62.15
V_2924_A		545.7	ug/L	10.16	1.862	6,035
Zn2062_A		534.9	ug/L	2.031	0.3798	1,632
Y_3600_R		17,786	Cts/S	42.097	0.23669	17,786
Y_2243_A		8,181.5	Cts/S	25.039	0.30604	8,181.5
Y_3600_A		140,740	Cts/S	799.09	0.56779	140,740

PBSOL01ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:36:13PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

PBSOL01ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:36:13PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.02551	ug/L	0.2765	1,084	-17.30
Al3961_R		7.119	ug/L	2.357	33.10	1.204
As1891_A		-0.009252	ug/L	0.6635	7,171	-1.539
B_2089_A		4.985	ug/L	0.05789	1.161	11.98
Ba4554_R		1.066	ug/L	0.02055	1.927	83.58
Be3130_R		0.07833	ug/L	0.0002060	0.2634	5.221
Ca3158_R		13.92	ug/L	3.728	26.78	-2.606
Cd2265_A		0.03198	ug/L	0.03811	119.2	-0.02606
Co2286_A		-0.1113	ug/L	0.07782	69.93	2.724
Cr2677_A		0.6270	ug/L	0.2813	44.87	7.057
Cu3273_A		0.8488	ug/L	0.3219	37.93	-23.07
Fe2599_R		6.965	ug/L	0.7163	10.29	19.58
K_7664_R		36.86	ug/L	30.98	84.04	-74.52
Li6707_R		1.795	ug/L	1.176	65.53	20.32
Mg2025_A		6.393	ug/L	1.529	23.92	-5.646
Mn2576_R		0.1607	ug/L	0.2341	145.6	3.085
Mo2020_A		0.3692	ug/L	0.1951	52.85	0.8002
Na5895_R		16.00	ug/L	5.922	37.02	60.76
Ni2316_A		0.6718	ug/L	0.07268	10.82	1.999
Pb2203_A		0.9042	ug/L	0.1048	11.59	-0.3292
Sb2068_A		-0.7064	ug/L	0.4528	64.11	0.1508
Se1960_A		0.8545	ug/L	0.2782	32.56	2.659
Si2516_R		13.17	ug/L	2.765	20.99	31.36
Sn1899_A		44.25	ug/L	0.2868	0.6481	23.24
Sr4215_R		0.3701	ug/L	0.09431	25.48	-119.4
Ti3349_A		1.123	ug/L	0.05702	5.079	20.11
Tl1908_A		-0.2906	ug/L	0.02399	8.256	-1.150
V_2924_A		-0.04677	ug/L	0.2296	490.9	-2.248
Zn2062_A		0.4462	ug/L	0.02541	5.695	1.507
Y_3600_R		18,360	Cts/S	404.07	2.2009	18,360
Y_2243_A		8,442.9	Cts/S	14.691	0.17400	8,442.9
Y_3600_A		145,210	Cts/S	1,210.1	0.83336	145,210

LCSOOL06ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:40:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		50.46	ug/L	0.06931	0.1374	1,019
Al3961_R		2,117	ug/L	24.66	1.165	2,191
As1891_A		104.4	ug/L	2.029	1.943	38.87
B_2089_A		518.5	ug/L	0.5318	0.1026	767.9
Ba4554_R		2,100	ug/L	21.80	1.038	135,400
Be3130_R		51.32	ug/L	0.5634	1.098	4,786
Ca3158_R		2,594	ug/L	25.16	0.9699	3,299
Cd2265_A		260.4	ug/L	0.2802	0.1076	3,369
Co2286_A		541.2	ug/L	0.4620	0.08537	2,104
Cr2677_A		209.6	ug/L	1.409	0.6722	2,379
Cu3273_A		265.2	ug/L	0.2474	0.09329	3,076
Fe2599_R		1,069	ug/L	13.57	1.269	2,137
K_7664_R		10,510	ug/L	43.92	0.4181	6,123
Li6707_R		532.3	ug/L	0.9778	0.1837	5,814
Mg2025_A		5,266	ug/L	19.81	0.3761	1,766
Mn2576_R		520.0	ug/L	5.147	0.9897	5,670
Mo2020_A		109.6	ug/L	0.005758	0.005252	352.8
Na5895_R		7,857	ug/L	77.85	0.9909	15,280
Ni2316_A		539.0	ug/L	0.5289	0.09813	1,085

LCSOOL06ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:40:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		105.7	ug/L	0.2893	0.2738	103.8
Sb2068_A		107.3	ug/L	0.05714	0.05324	55.79
Se1960_A		106.9	ug/L	0.5077	0.4750	33.94
Si2516_R		988.2	ug/L	32.67	3.306	507.7
Sn1899_A		576.9	ug/L	0.6086	0.1055	286.7
Sr4215_R		520.2	ug/L	4.867	0.9356	37,180
Ti3349_A		524.3	ug/L	0.5069	0.09667	14,150
Tl1908_A		106.2	ug/L	1.284	1.209	61.27
V_2924_A		529.5	ug/L	0.9269	0.1751	5,932
Zn2062_A		519.7	ug/L	0.4811	0.09258	1,592
Y_3600_R		17,843	Cts/S	22.723	0.12735	17,843
Y_2243_A		8,215.6	Cts/S	26.243	0.31943	8,215.6
Y_3600_A		142,570	Cts/S	149.09	0.10457	142,570

PBSOL06ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:44:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1407	ug/L	0.1876	133.3	-21.29
Al3961_R		12.91	ug/L	6.278	48.63	7.462
As1891_A		-0.4281	ug/L	0.3073	71.78	-1.714
B_2089_A		4.101	ug/L	0.1933	4.714	10.70
Ba4554_R		0.4383	ug/L	0.1360	31.03	42.10
Be3130_R		0.04163	ug/L	0.03958	95.08	1.696
Ca3158_R		14.63	ug/L	0.6686	4.571	-1.736
Cd2265_A		0.1629	ug/L	0.01833	11.25	1.717
Co2286_A		0.03726	ug/L	0.09701	260.4	3.334
Cr2677_A		2.887	ug/L	0.09170	3.177	33.89
Cu3273_A		0.9114	ug/L	0.3949	43.33	-22.81
Fe2599_R		10.92	ug/L	1.122	10.28	27.83
K_7664_R		56.92	ug/L	28.99	50.93	-62.35
Li6707_R		1.075	ug/L	0.3596	33.44	12.45
Mg2025_A		8.182	ug/L	0.4970	6.074	-5.052
Mn2576_R		0.2218	ug/L	0.1345	60.66	3.763
Mo2020_A		0.3915	ug/L	0.02007	5.125	0.8789
Na5895_R		8.387	ug/L	6.553	78.13	45.96
Ni2316_A	W	9.667	ug/L	0.09727	1.006	20.67
Pb2203_A		0.8234	ug/L	0.5208	63.25	-0.4133
Sb2068_A		-0.6165	ug/L	0.7378	119.7	0.1606
Se1960_A		0.2206	ug/L	1.292	585.6	2.479
Si2516_R		4.866	ug/L	9.181	188.7	27.34
Sn1899_A	W	51.98	ug/L	0.1861	0.3581	27.30
Sr4215_R		0.03653	ug/L	0.02614	71.55	-144.8
Ti3349_A		1.010	ug/L	0.1422	14.08	17.38
Tl1908_A		-0.2468	ug/L	0.2785	112.8	-1.129
V_2924_A		-0.08691	ug/L	0.01001	11.52	-2.826
Zn2062_A		0.7233	ug/L	0.07968	11.02	2.383
Y_3600_R		18,453	Cts/S	119.75	0.64893	18,453
Y_2243_A		8,482.0	Cts/S	21.213	0.25009	8,482.0
Y_3600_A		148,290	Cts/S	74.471	0.050219	148,290

LCSOOL08ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:49:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LCSOOL08ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:49:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.35	ug/L	1.129	2.199	1,033
Al3961_R		2,181	ug/L	12.58	0.5769	2,231
As1891_A		104.0	ug/L	1.490	1.432	38.84
B_2089_A		520.0	ug/L	5.033	0.9679	772.3
Ba4554_R		2,162	ug/L	27.98	1.295	137,700
Be3130_R		52.40	ug/L	0.8196	1.564	4,829
Ca3158_R		2,692	ug/L	23.36	0.8675	3,383
Cd2265_A		263.7	ug/L	1.688	0.6401	3,420
Co2286_A		551.4	ug/L	3.626	0.6576	2,149
Cr2677_A		213.1	ug/L	3.017	1.416	2,410
Cu3273_A		267.4	ug/L	1.720	0.6431	3,092
Fe2599_R		1,098	ug/L	11.18	1.019	2,167
K_7664_R		10,810	ug/L	92.43	0.8552	6,226
Li6707_R		545.9	ug/L	6.308	1.155	5,892
Mg2025_A		5,330	ug/L	51.98	0.9752	1,793
Mn2576_R		536.9	ug/L	2.771	0.5161	5,783
Mo2020_A		111.4	ug/L	0.5854	0.5253	359.5
Na5895_R		8,073	ug/L	50.75	0.6287	15,510
Ni2316_A		544.9	ug/L	3.157	0.5793	1,100
Pb2203_A		107.3	ug/L	0.3283	0.3060	105.7
Sb2068_A		108.6	ug/L	0.3828	0.3525	56.56
Se1960_A	F	112.3	ug/L	0.3461	0.3082	35.64
Si2516_R		1,050	ug/L	16.09	1.532	531.6
Sn1899_A		590.1	ug/L	0.2787	0.04723	294.0
Sr4215_R		532.9	ug/L	8.582	1.610	37,640
Ti3349_A		533.2	ug/L	5.213	0.9776	14,340
Tl1908_A		108.3	ug/L	0.2655	0.2451	62.66
V_2924_A		541.4	ug/L	6.625	1.224	6,045
Zn2062_A		526.7	ug/L	2.731	0.5184	1,618
Y_3600_R		17,630	Cts/S	282.36	1.6016	17,630
Y_2243_A		8,238.9	Cts/S	107.48	1.3045	8,238.9
Y_3600_A		142,110	Cts/S	1,943.6	1.3677	142,110

PBSOL08ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:53:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1176	ug/L	0.3509	298.4	-20.47
Al3961_R		14.86	ug/L	3.646	24.53	9.443
As1891_A		-0.8724	ug/L	0.7794	89.34	-1.902
B_2089_A		3.142	ug/L	0.1830	5.823	9.297
Ba4554_R		0.6271	ug/L	0.2591	41.31	54.17
Be3130_R		0.07278	ug/L	0.0005650	0.7758	4.661
Ca3158_R		13.90	ug/L	1.788	12.87	-2.678
Cd2265_A		0.01462	ug/L	0.02405	164.5	-0.2447
Co2286_A		-0.1047	ug/L	0.1264	120.8	2.777
Cr2677_A		0.3732	ug/L	0.02474	6.628	4.163
Cu3273_A		2.026	ug/L	0.4430	21.86	-9.061
Fe2599_R		13.16	ug/L	2.556	19.42	32.12
K_7664_R		74.16	ug/L	10.35	13.95	-51.36
Li6707_R		1.291	ug/L	0.2107	16.32	14.72
Mg2025_A		5.410	ug/L	1.149	21.24	-6.040
Mn2576_R		0.7998	ug/L	0.4625	57.83	10.17
Mo2020_A		0.3464	ug/L	0.03012	8.695	0.7323
Na5895_R		9.526	ug/L	4.542	47.68	47.74
Ni2316_A		0.7262	ug/L	0.005031	0.6928	2.132

PBSOL08ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:53:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.3427	ug/L	0.3048	88.95	-0.9132
Sb2068_A		-0.09487	ug/L	0.6953	732.9	0.4958
Se1960_A		-0.2113	ug/L	0.8728	413.1	2.359
Si2516_R		-0.1620	ug/L	2.144	1,323	24.59
Sn1899_A		44.14	ug/L	0.2907	0.6587	23.41
Sr4215_R		0.1208	ug/L	0.1760	145.6	-137.3
Ti3349_A		1.024	ug/L	0.2265	22.12	17.48
Tl1908_A		-1.297	ug/L	0.06749	5.205	-1.766
V_2924_A		-0.2169	ug/L	0.3081	142.1	-4.194
Zn2062_A		0.8820	ug/L	0.02056	2.331	2.909
Y_3600_R		18,278	Cts/S	55.894	0.30580	18,278
Y_2243_A		8,526.1	Cts/S	6.9945	0.082036	8,526.1
Y_3600_A		146,060	Cts/S	562.58	0.38517	146,060

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 12:57:53PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		517.3	ug/L	2.685	0.5190	10,750
Al3961_R		12,700	ug/L	265.1	2.088	13,440
As1891_A		515.9	ug/L	4.908	0.9513	200.7
B_2089_A		517.1	ug/L	5.331	1.031	790.8
Ba4554_R		505.9	ug/L	12.13	2.398	33,280
Be3130_R		498.2	ug/L	11.17	2.241	47,430
Ca3158_R		12,940	ug/L	194.9	1.506	16,870
Cd2265_A		508.3	ug/L	3.284	0.6460	6,701
Co2286_A		521.4	ug/L	3.553	0.6814	2,058
Cr2677_A		515.6	ug/L	3.677	0.7132	5,884
Cu3273_A		508.3	ug/L	1.994	0.3923	5,968
Fe2599_R		12,750	ug/L	272.4	2.137	25,940
K_7664_R		12,620	ug/L	189.1	1.499	7,520
Li6707_R		512.8	ug/L	14.63	2.854	5,715
Mg2025_A		13,120	ug/L	104.4	0.7951	4,442
Mn2576_R		507.4	ug/L	9.014	1.776	5,641
Mo2020_A		517.2	ug/L	4.548	0.8794	1,692
Na5895_R		12,580	ug/L	263.7	2.095	24,950
Ni2316_A		516.5	ug/L	4.311	0.8347	1,061
Pb2203_A		515.7	ug/L	2.248	0.4359	519.0
Sb2068_A		520.2	ug/L	3.513	0.6753	284.8
Se1960_A		522.7	ug/L	5.112	0.9781	159.1
Si2516_R		13,150	ug/L	208.0	1.582	6,556
Sn1899_A	W	530.8	ug/L	4.278	0.8060	267.9
Sr4215_R		503.7	ug/L	12.63	2.508	36,730
Ti3349_A		511.8	ug/L	1.960	0.3829	13,900
Tl1908_A	W	527.6	ug/L	4.554	0.8631	309.7
V_2924_A		513.5	ug/L	2.402	0.4677	5,750
Zn2062_A		508.0	ug/L	2.626	0.5168	1,580
Y_3600_R		18,204	Cts/S	46.795	0.25706	18,204
Y_2243_A		8,342.7	Cts/S	91.533	1.0972	8,342.7
Y_3600_A		143,380	Cts/S	19.302	0.013462	143,380

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:02:02PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:02:02PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1345	ug/L	0.08505	63.24	-15.13
Al3961_R		9.764	ug/L	2.591	26.53	4.018
As1891_A		0.01773	ug/L	0.2365	1,334	-1.529
B_2089_A		2.487	ug/L	0.04443	1.787	8.238
Ba4554_R		0.1999	ug/L	0.2997	149.9	25.83
Be3130_R		0.2228	ug/L	0.009937	4.460	18.92
Ca3158_R		5.277	ug/L	0.7147	13.54	-13.90
Cd2265_A		0.2175	ug/L	0.05487	25.23	2.444
Co2286_A		0.1844	ug/L	0.01701	9.226	3.902
Cr2677_A		0.5364	ug/L	0.1827	34.06	6.055
Cu3273_A		0.9060	ug/L	0.01160	1.281	-22.57
Fe2599_R		8.939	ug/L	0.1094	1.224	23.38
K_7664_R		14.22	ug/L	8.026	56.44	-87.25
Li6707_R		1.716	ug/L	1.179	68.71	19.40
Mg2025_A		7.297	ug/L	0.6428	8.810	-5.323
Mn2576_R		-0.02759	ug/L	0.1665	603.7	0.9326
Mo2020_A		0.8680	ug/L	0.09473	10.91	2.454
Na5895_R		1.583	ug/L	0.4941	31.22	31.79
Ni2316_A		0.5679	ug/L	0.1877	33.05	1.792
Pb2203_A		-0.1221	ug/L	0.02982	24.43	-1.381
Sb2068_A		-0.1792	ug/L	1.218	680.0	0.7005
Se1960_A		0.8403	ug/L	1.220	145.2	2.655
Si2516_R		8.103	ug/L	0.6239	7.700	28.56
Sn1899_A		0.1232	ug/L	0.6575	533.7	0.7585
Sr4215_R		0.1755	ug/L	0.1265	72.09	-132.6
Ti3349_A		1.116	ug/L	0.09541	8.549	20.10
Tl1908_A		0.1486	ug/L	0.1469	98.82	-0.8884
V_2924_A		0.08614	ug/L	0.4584	532.1	-0.7163
Zn2062_A		0.4933	ug/L	0.09335	18.92	1.656
Y_3600_R		18,184	Cts/S	42.678	0.23470	18,184
Y_2243_A		8,445.6	Cts/S	10.726	0.12700	8,445.6
Y_3600_A		146,300	Cts/S	1,935.8	1.3232	146,300

LCSWOL08ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:06:27PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.09	ug/L	0.1966	0.3847	1,040
Al3961_R		2,120	ug/L	14.52	0.6850	2,219
As1891_A		103.2	ug/L	1.837	1.780	38.48
B_2089_A		514.5	ug/L	1.635	0.3178	763.5
Ba4554_R		2,103	ug/L	18.27	0.8686	137,100
Be3130_R		51.30	ug/L	0.4399	0.8574	4,838
Ca3158_R		2,608	ug/L	18.30	0.7018	3,353
Cd2265_A		257.5	ug/L	0.7964	0.3093	3,337
Co2286_A		544.6	ug/L	2.502	0.4595	2,121
Cr2677_A		210.7	ug/L	0.7892	0.3745	2,410
Cu3273_A		262.0	ug/L	0.1272	0.04854	3,062
Fe2599_R		1,068	ug/L	8.829	0.8266	2,158
K_7664_R		10,250	ug/L	98.39	0.9599	6,037
Li6707_R		524.1	ug/L	2.534	0.4835	5,788
Mg2025_A		5,275	ug/L	25.31	0.4799	1,772
Mn2576_R		519.8	ug/L	5.077	0.9768	5,730
Mo2020_A		108.4	ug/L	0.3616	0.3336	349.5
Na5895_R		7,712	ug/L	44.18	0.5729	15,160
Ni2316_A		540.4	ug/L	1.939	0.3589	1,090

LCSWOL08ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:06:27PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		104.3	ug/L	0.5125	0.4914	102.6
Sb2068_A		106.7	ug/L	0.2807	0.2632	55.79
Se1960_A		107.3	ug/L	1.027	0.9575	34.13
Si2516_R		1,077	ug/L	10.18	0.9453	556.8
Sn1899_A		534.7	ug/L	1.474	0.2757	266.2
Sr4215_R		514.9	ug/L	3.895	0.7565	37,210
Ti3349_A		512.1	ug/L	0.1021	0.01994	13,930
Tl1908_A		106.6	ug/L	0.1441	0.1352	61.61
V_2924_A		523.5	ug/L	0.1029	0.01965	5,910
Zn2062_A		530.6	ug/L	2.265	0.4269	1,629
Y_3600_R		18,040	Cts/S	98.255	0.54465	18,040
Y_2243_A		8,231.5	Cts/S	10.382	0.12613	8,231.5
Y_3600_A		143,680	Cts/S	837.83	0.58311	143,680

PBWOL08ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:10:40PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1761	ug/L	0.3487	198.0	-21.55
Al3961_R		10.54	ug/L	2.606	24.73	4.817
As1891_A		-1.483	ug/L	0.4286	28.90	-2.135
B_2089_A		2.676	ug/L	0.4306	16.09	8.538
Ba4554_R		0.2412	ug/L	0.1176	48.75	28.89
Be3130_R		0.05111	ug/L	0.03603	70.49	2.657
Ca3158_R		8.057	ug/L	5.756	71.43	-10.26
Cd2265_A		0.04019	ug/L	0.03538	88.02	0.09314
Co2286_A		-0.1279	ug/L	0.04899	38.32	2.667
Cr2677_A		0.1794	ug/L	0.1246	69.45	1.893
Cu3273_A		1.003	ug/L	0.1254	12.50	-21.22
Fe2599_R		10.97	ug/L	0.2274	2.073	27.74
K_7664_R		11.61	ug/L	5.192	44.72	-89.57
Li6707_R		-0.3475	ug/L	0.1750	50.37	-3.639
Mg2025_A		2.564	ug/L	1.256	49.00	-6.978
Mn2576_R		0.8698	ug/L	0.1984	22.81	10.96
Mo2020_A		0.2749	ug/L	0.02884	10.49	0.4904
Na5895_R		6.749	ug/L	2.454	36.36	42.41
Ni2316_A		0.3709	ug/L	0.07398	19.95	1.382
Pb2203_A		0.3142	ug/L	0.6940	220.9	-0.9374
Sb2068_A		-1.021	ug/L	0.1654	16.19	0.2330
Se1960_A		0.2982	ug/L	1.382	463.5	2.501
Si2516_R		13.06	ug/L	1.435	10.99	31.25
Sn1899_A		0.1411	ug/L	0.1415	100.2	0.7709
Sr4215_R		0.08628	ug/L	0.03604	41.77	-140.2
Ti3349_A		0.8819	ug/L	0.05729	6.496	13.47
Tl1908_A		-0.5766	ug/L	0.7296	126.5	-1.326
V_2924_A		-0.1160	ug/L	0.3550	306.0	-2.998
Zn2062_A	W	11.78	ug/L	0.07600	0.6454	37.35
Y_3600_R		18,328	Cts/S	469.10	2.5595	18,328
Y_2243_A		8,478.7	Cts/S	0.98636	0.011633	8,478.7
Y_3600_A		145,070	Cts/S	978.69	0.67462	145,070

LCSWOL08ICW3

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:15:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LCSWOL08ICW3

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:15:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.30	ug/L	0.4472	0.8719	1,085
Al3961_R		2,090	ug/L	47.37	2.266	2,230
As1891_A		108.2	ug/L	0.2339	0.2161	42.06
B_2089_A		535.9	ug/L	0.4756	0.08875	826.9
Ba4554_R		2,050	ug/L	36.72	1.791	136,200
Be3130_R		50.28	ug/L	0.9033	1.796	4,833
Ca3158_R		2,623	ug/L	50.20	1.914	3,437
Cd2265_A		263.9	ug/L	0.9151	0.3467	3,557
Co2286_A		538.2	ug/L	1.327	0.2465	2,180
Cr2677_A		203.7	ug/L	3.883	1.906	2,419
Cu3273_A		253.1	ug/L	3.711	1.466	3,070
Fe2599_R		1,022	ug/L	21.43	2.097	2,106
K_7664_R		10,480	ug/L	187.2	1.786	6,294
Li6707_R		522.1	ug/L	8.722	1.671	5,876
Mg2025_A		5,453	ug/L	6.825	0.1252	1,905
Mn2576_R		518.1	ug/L	12.07	2.329	5,820
Mo2020_A		106.8	ug/L	0.4112	0.3850	358.1
Na5895_R		7,791	ug/L	153.9	1.976	15,610
Ni2316_A		536.2	ug/L	1.470	0.2741	1,125
Pb2203_A		107.7	ug/L	0.2322	0.2156	110.3
Sb2068_A		107.8	ug/L	0.3146	0.2918	58.75
Se1960_A		112.7	ug/L	0.5681	0.5043	37.14
Si2516_R		1,078	ug/L	18.81	1.745	567.9
Sn1899_A		517.1	ug/L	6.401	1.238	267.8
Sr4215_R		513.8	ug/L	7.163	1.394	37,840
Ti3349_A		501.5	ug/L	2.363	0.4712	14,160
Tl1908_A		110.2	ug/L	0.05544	0.05032	66.23
V_2924_A		515.8	ug/L	5.143	0.9973	6,046
Zn2062_A		530.5	ug/L	2.529	0.4767	1,694
Y_3600_R		18,386	Cts/S	141.40	0.76907	18,386
Y_2243_A		8,561.5	Cts/S	21.517	0.25133	8,561.5
Y_3600_A		149,180	Cts/S	1,491.1	0.99953	149,180

PBWOL08ICW3

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:19:18PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1366	ug/L	0.05596	40.96	-21.41
Al3961_R		9.623	ug/L	10.58	109.9	3.854
As1891_A		0.2855	ug/L	0.2324	81.38	-1.462
B_2089_A		1.900	ug/L	0.4281	22.53	7.544
Ba4554_R		0.6040	ug/L	0.08295	13.73	53.83
Be3130_R		0.06689	ug/L	0.0001410	0.2109	4.128
Ca3158_R		4.008	ug/L	0.2857	7.129	-15.97
Cd2265_A		0.06355	ug/L	0.02846	44.78	0.4066
Co2286_A		0.05990	ug/L	0.02595	43.32	3.502
Cr2677_A		0.03551	ug/L	0.1498	421.8	0.2502
Cu3273_A		0.7400	ug/L	0.2641	35.69	-25.15
Fe2599_R		6.020	ug/L	1.940	32.23	17.88
K_7664_R		12.57	ug/L	7.069	56.22	-90.61
Li6707_R		-0.7914	ug/L	2.160	272.9	-8.974
Mg2025_A		11.10	ug/L	0.4794	4.317	-4.142
Mn2576_R		-0.07924	ug/L	0.01465	18.49	0.3745
Mo2020_A		0.4795	ug/L	0.1698	35.41	1.201
Na5895_R		4.667	ug/L	0.03926	0.8413	38.89
Ni2316_A		-0.2517	ug/L	0.1079	42.88	0.09529

PBWOL08ICW3

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:19:18PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.424	ug/L	0.6639	46.62	0.2115
Sb2068_A		-1.009	ug/L	0.006093	0.6040	0.2297
Se1960_A		-1.181	ug/L	2.083	176.3	2.095
Si2516_R		6.768	ug/L	11.26	166.4	28.59
Sn1899_A		2.690	ug/L	1.003	37.30	2.126
Sr4215_R		0.09628	ug/L	0.01881	19.53	-142.0
Ti3349_A		1.724	ug/L	0.1066	6.185	37.81
Tl1908_A		0.9424	ug/L	0.5525	58.62	-0.4269
V_2924_A		-0.3789	ug/L	0.03299	8.705	-6.206
Zn2062_A		1.062	ug/L	0.07679	7.228	3.543
Y_3600_R		18,663	Cts/S	337.74	1.8097	18,663
Y_2243_A		8,674.9	Cts/S	86.659	0.99897	8,674.9
Y_3600_A		149,770	Cts/S	1,265.6	0.84506	149,770

LCSWPA05ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:23:43PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A	F	103.2	ug/L	0.1448	0.1404	2,108
Al3961_R	F	4,314	ug/L	90.52	2.098	4,426
As1891_A		105.7	ug/L	2.847	2.694	39.97
B_2089_A		514.3	ug/L	8.055	1.566	774.4
Ba4554_R	F	4,258	ug/L	98.08	2.303	272,000
Be3130_R	F	103.8	ug/L	2.308	2.223	9,634
Ca3158_R		2,670	ug/L	53.57	2.006	3,366
Cd2265_A		260.0	ug/L	4.045	1.556	3,420
Co2286_A	F	1,071	ug/L	14.61	1.364	4,227
Cr2677_A	F	417.5	ug/L	0.6775	0.1623	4,732
Cu3273_A	F	532.1	ug/L	1.572	0.2954	6,201
Fe2599_R	F	2,151	ug/L	61.38	2.853	4,256
K_7664_R		10,650	ug/L	230.0	2.158	6,155
Li6707_R		541.5	ug/L	16.28	3.007	5,861
Mg2025_A		5,222	ug/L	69.79	1.336	1,806
Mn2576_R	F	1,062	ug/L	27.72	2.611	11,470
Mo2020_A		106.7	ug/L	1.728	1.620	348.7
Na5895_R		8,036	ug/L	143.1	1.780	15,490
Ni2316_A	F	1,064	ug/L	16.18	1.521	2,175
Pb2203_A		106.8	ug/L	0.7332	0.6865	106.6
Sb2068_A		107.7	ug/L	1.106	1.026	57.39
Se1960_A		109.2	ug/L	1.212	1.110	35.32
Si2516_R		1,105	ug/L	17.26	1.562	559.4
Sn1899_A		545.7	ug/L	6.765	1.240	275.7
Sr4215_R		526.0	ug/L	12.00	2.282	37,260
Ti3349_A		528.0	ug/L	0.6593	0.1249	14,230
Tl1908_A		107.6	ug/L	1.103	1.025	64.16
V_2924_A	F	1,063	ug/L	3.643	0.3427	11,900
Zn2062_A	F	1,034	ug/L	13.96	1.350	3,222
Y_3600_R		17,684	Cts/S	130.49	0.73788	17,684
Y_2243_A		8,354.1	Cts/S	120.87	1.4469	8,354.1
Y_3600_A		142,390	Cts/S	401.50	0.28198	142,390

PBWPA05ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:27:55PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

PBWPA05ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:27:55PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.08076	ug/L	0.2267	280.7	-16.00
Al3961_R		9.858	ug/L	6.281	63.71	4.065
As1891_A		-1.260	ug/L	1.291	102.5	-2.014
B_2089_A		2.315	ug/L	0.05789	2.500	7.880
Ba4554_R		0.4555	ug/L	0.08563	18.80	42.45
Be3130_R		0.06531	ug/L	0.05566	85.23	3.889
Ca3158_R		1.622	ug/L	0.8970	55.29	-18.59
Cd2265_A		0.07595	ug/L	0.03256	42.87	0.5489
Co2286_A		-0.03870	ug/L	0.07398	191.2	2.979
Cr2677_A		0.2711	ug/L	0.1368	50.44	2.931
Cu3273_A		0.9630	ug/L	0.3455	35.87	-21.53
Fe2599_R		3.949	ug/L	0.1177	2.981	13.19
K_7664_R		38.53	ug/L	19.14	49.68	-72.31
Li6707_R		0.1451	ug/L	0.005037	3.472	1.889
Mg2025_A		2.815	ug/L	0.5250	18.65	-6.795
Mn2576_R		0.09468	ug/L	0.2125	224.4	2.278
Mo2020_A		0.3342	ug/L	0.05992	17.93	0.6791
Na5895_R		7.665	ug/L	3.457	45.11	43.62
Ni2316_A		0.1794	ug/L	0.08805	49.09	0.9732
Pb2203_A		0.5852	ug/L	0.1717	29.33	-0.6485
Sb2068_A		-0.4242	ug/L	0.9984	235.3	0.5463
Se1960_A		-0.4406	ug/L	0.7671	174.1	2.243
Si2516_R		1.324	ug/L	0.6869	51.89	25.09
Sn1899_A		1.728	ug/L	0.7361	42.61	1.558
Sr4215_R		-0.09005	ug/L	0.01491	16.56	-151.3
Ti3349_A		0.8283	ug/L	0.07757	9.365	11.89
Tl1908_A		-0.9172	ug/L	0.4479	48.84	-1.506
V_2924_A		-0.5644	ug/L	0.1282	22.71	-8.070
Zn2062_A		0.9710	ug/L	0.03614	3.722	3.128
Y_3600_R		18,106	Cts/S	76.827	0.42433	18,106
Y_2243_A		8,357.5	Cts/S	86.100	1.0302	8,357.5
Y_3600_A		143,860	Cts/S	175.33	0.12188	143,860

SO8135-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:32:20PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		17.38	ug/L	1.387	7.982	-285.2
Al3961_R	W	324,600	ug/L	21.13	0.006511	69,370
As1891_A		-28.64	ug/L	1.034	3.612	-9.296
B_2089_A		66.15	ug/L	0.2264	0.3423	23.86
Ba4554_R		3,467	ug/L	2.803	0.08085	46,150
Be3130_R		3.778	ug/L	0.2508	6.640	-0.7454
Ca3158_R		60,210	ug/L	18.81	0.03125	15,880
Cd2265_A		-12.86	ug/L	0.2347	1.826	251.3
Co2286_A		243.8	ug/L	0.4797	0.1967	206.4
Cr2677_A		278.0	ug/L	2.336	0.8405	662.1
Cu3273_A		1,543	ug/L	16.74	1.085	3,746
Fe2599_R	W	645,500	ug/L	277.8	0.04304	265,700
K_7664_R		2,064	ug/L	52.61	2.549	155.1
Li6707_R		71.74	ug/L	2.267	3.160	162.1
Mg2025_A	W	145,200	ug/L	370.2	0.2549	9,698
Mn2576_R	W	13,420	ug/L	24.02	0.1790	30,140
Mo2020_A		-5.516	ug/L	0.8772	15.90	-4.347
Na5895_R		57,670	ug/L	303.9	0.5270	23,140
Ni2316_A		157.0	ug/L	0.7500	0.4777	53.80

SO8135-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:32:20PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		67.05	ug/L	0.6333	0.9445	7.481
Sb2068_A		-14.81	ug/L	3.456	23.33	2.208
Se1960_A		-9.755	ug/L	5.031	51.58	4.740
Si2516_R		41,010	ug/L	38.02	0.09269	4,141
Sn1899_A		54.35	ug/L	3.462	6.370	6.106
Sr4215_R		688.6	ug/L	1.542	0.2239	10,050
Ti3349_A	W	7,806	ug/L	122.0	1.563	43,130
Tl1908_A		-7.231	ug/L	0.001739	0.02405	-4.004
V_2924_A		2,421	ug/L	46.58	1.924	5,558
Zn2062_A		786.0	ug/L	1.090	0.1387	485.0
Y_3600_R		18,417	Cts/S	167.65	0.91034	18,417
Y_2243_A		8,270.0	Cts/S	38.830	0.46953	8,270.0
Y_3600_A		145,900	Cts/S	1,716.8	1.1767	145,900

SO8135-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:36:35PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		20.15	ug/L	0.5738	2.848	-343.0
Al3961_R	W	686,500	ug/L	4,523	0.6589	144,900
As1891_A		-29.91	ug/L	10.21	34.13	-10.63
B_2089_A		58.57	ug/L	0.08739	0.1492	20.96
Ba4554_R		370.1	ug/L	0.4464	0.1206	4,875
Be3130_R		-2.018	ug/L	0.01873	0.9283	-236.4
Ca3158_R	W	283,800	ug/L	1,629	0.5738	73,990
Cd2265_A		-9.787	ug/L	2.356	24.07	296.9
Co2286_A		400.6	ug/L	0.1383	0.03452	333.0
Cr2677_A		311.4	ug/L	0.002455	0.0007880	706.9
Cu3273_A		1,162	ug/L	22.25	1.915	2,681
Fe2599_R	W	747,500	ug/L	14,700	1.966	303,800
K_7664_R		1,225	ug/L	60.74	4.959	51.87
Li6707_R		117.1	ug/L	2.233	1.907	261.0
Mg2025_A	W	255,500	ug/L	943.5	0.3693	16,550
Mn2576_R	W	10,660	ug/L	59.48	0.5582	23,620
Mo2020_A		-5.880	ug/L	0.1103	1.876	-4.459
Na5895_R		47,580	ug/L	424.6	0.8924	18,850
Ni2316_A		295.7	ug/L	0.01502	0.005079	105.0
Pb2203_A		851.1	ug/L	0.4747	0.05578	153.3
Sb2068_A		0.8361	ug/L	4.786	572.4	4.455
Se1960_A		-12.94	ug/L	0.7038	5.437	5.196
Si2516_R		46,560	ug/L	421.5	0.9054	4,647
Sn1899_A		48.43	ug/L	4.725	9.756	5.347
Sr4215_R		799.3	ug/L	2.886	0.3611	11,540
Ti3349_A	W	18,110	ug/L	199.2	1.099	95,430
Tl1908_A		-13.56	ug/L	1.192	8.795	-5.198
V_2924_A		3,098	ug/L	24.83	0.8016	6,798
Zn2062_A		751.7	ug/L	3.692	0.4912	449.7
Y_3600_R		18,184	Cts/S	88.032	0.48412	18,184
Y_2243_A		8,018.9	Cts/S	14.640	0.18257	8,018.9
Y_3600_A		139,090	Cts/S	1,392.1	1.0009	139,090

SO8135-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:40:56PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8135-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:40:56PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		15.42	ug/L	1.310	8.498	-313.0
Al3961_R	W	465,200	ug/L	3,692	0.7937	98,450
As1891_A		-23.56	ug/L	2.672	11.34	-9.355
B_2089_A		66.94	ug/L	0.6431	0.9607	24.12
Ba4554_R		588.6	ug/L	6.204	1.054	7,770
Be3130_R		0.04451	ug/L	0.08591	193.0	-133.6
Ca3158_R		83,850	ug/L	532.5	0.6350	21,910
Cd2265_A		-12.87	ug/L	2.314	17.98	260.4
Co2286_A		279.4	ug/L	1.883	0.6740	241.4
Cr2677_A		199.9	ug/L	3.305	1.654	470.0
Cu3273_A		871.7	ug/L	7.785	0.8930	2,076
Fe2599_R	W	663,200	ug/L	8,448	1.274	270,400
K_7664_R		2,644	ug/L	3.134	0.1186	223.7
Li6707_R		106.6	ug/L	10.25	9.615	238.3
Mg2025_A	W	173,800	ug/L	1,568	0.9021	11,620
Mn2576_R	W	9,122	ug/L	64.81	0.7104	20,280
Mo2020_A		-5.689	ug/L	0.4679	8.225	-4.430
Na5895_R		42,530	ug/L	281.1	0.6609	16,910
Ni2316_A		134.7	ug/L	0.6869	0.5101	44.53
Pb2203_A		23.32	ug/L	2.449	10.50	-3.941
Sb2068_A		-13.30	ug/L	1.872	14.08	2.499
Se1960_A		-15.57	ug/L	1.544	9.917	4.543
Si2516_R		46,670	ug/L	378.1	0.8100	4,669
Sn1899_A		52.80	ug/L	0.7743	1.466	5.958
Sr4215_R		456.2	ug/L	8.964	1.965	6,546
Ti3349_A	W	12,760	ug/L	94.81	0.7432	68,980
Tl1908_A		-4.928	ug/L	2.695	54.68	-3.714
V_2924_A		2,652	ug/L	17.60	0.6637	5,970
Zn2062_A		735.2	ug/L	0.7016	0.09544	454.2
Y_3600_R		18,240	Cts/S	5.5979	0.030690	18,240
Y_2243_A		8,280.0	Cts/S	98.865	1.1940	8,280.0
Y_3600_A		142,770	Cts/S	817.10	0.57231	142,770

SO8135-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:45:11PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		20.55	ug/L	0.4078	1.985	-318.8
Al3961_R	W	555,700	ug/L	2,941	0.5292	117,500
As1891_A		-24.34	ug/L	7.577	31.13	-9.655
B_2089_A		86.76	ug/L	0.03847	0.04434	29.59
Ba4554_R		452.1	ug/L	1.616	0.3574	5,966
Be3130_R		-0.6629	ug/L	0.03172	4.785	-218.4
Ca3158_R		92,560	ug/L	542.0	0.5856	24,160
Cd2265_A		-12.36	ug/L	1.330	10.76	268.9
Co2286_A		295.8	ug/L	1.245	0.4210	258.7
Cr2677_A		103.6	ug/L	1.434	1.383	249.5
Cu3273_A		779.4	ug/L	6.044	0.7755	1,834
Fe2599_R	W	685,000	ug/L	5,344	0.7801	279,000
K_7664_R		1,231	ug/L	2.885	0.2343	52.75
Li6707_R		122.2	ug/L	5.106	4.177	273.0
Mg2025_A	W	204,400	ug/L	725.7	0.3550	13,490
Mn2576_R	W	8,194	ug/L	29.13	0.3554	18,190
Mo2020_A		-5.512	ug/L	1.215	22.05	-4.252
Na5895_R		41,750	ug/L	92.17	0.2208	16,580
Ni2316_A		122.7	ug/L	0.04304	0.03507	38.84

SO8135-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:45:11PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		26.80	ug/L	3.418	12.75	-4.860
Sb2068_A		-8.334	ug/L	6.079	72.94	3.099
Se1960_A		-18.93	ug/L	4.364	23.06	4.468
Si2516_R		45,320	ug/L	260.0	0.5737	4,536
Sn1899_A		51.31	ug/L	0.7136	1.391	5.733
Sr4215_R		488.7	ug/L	4.803	0.9829	7,016
Ti3349_A	W	18,340	ug/L	234.6	1.280	98,310
Tl1908_A		-7.507	ug/L	2.188	29.14	-4.443
V_2924_A		2,750	ug/L	29.83	1.085	6,147
Zn2062_A		768.1	ug/L	0.7843	0.1021	468.4
Y_3600_R		18,221	Cts/S	40.325	0.22131	18,221
Y_2243_A		8,171.9	Cts/S	32.879	0.40235	8,171.9
Y_3600_A		141,560	Cts/S	988.26	0.69814	141,560

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:49:26PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		509.5	ug/L	8.500	1.668	10,550
Al3961_R		12,910	ug/L	246.5	1.910	13,570
As1891_A		517.9	ug/L	1.115	0.2152	200.0
B_2089_A		515.0	ug/L	0.6726	0.1306	782.1
Ba4554_R		508.2	ug/L	7.981	1.570	33,220
Be3130_R		493.5	ug/L	8.189	1.659	46,680
Ca3158_R		13,020	ug/L	281.2	2.159	16,870
Cd2265_A		506.5	ug/L	0.6027	0.1190	6,628
Co2286_A		523.6	ug/L	0.7994	0.1527	2,052
Cr2677_A		503.4	ug/L	9.788	1.944	5,727
Cu3273_A		502.2	ug/L	7.220	1.438	5,876
Fe2599_R		12,770	ug/L	172.1	1.348	25,810
K_7664_R		12,820	ug/L	259.3	2.023	7,594
Li6707_R		515.2	ug/L	6.828	1.325	5,705
Mg2025_A	W	13,220	ug/L	41.38	0.3130	4,442
Mn2576_R		514.4	ug/L	9.197	1.788	5,681
Mo2020_A		517.6	ug/L	0.1845	0.03564	1,681
Na5895_R		12,700	ug/L	284.7	2.241	25,020
Ni2316_A		514.1	ug/L	0.5604	0.1090	1,048
Pb2203_A		512.7	ug/L	0.2510	0.04896	512.2
Sb2068_A		524.7	ug/L	1.264	0.2409	285.2
Se1960_A		521.5	ug/L	2.122	0.4069	157.7
Si2516_R		13,430	ug/L	164.4	1.224	6,650
Sn1899_A	W	534.6	ug/L	0.1425	0.02666	267.8
Sr4215_R		502.5	ug/L	6.448	1.283	36,410
Ti3349_A		511.7	ug/L	9.262	1.810	13,850
Tl1908_A	W	531.3	ug/L	1.426	0.2684	309.7
V_2924_A		513.3	ug/L	8.696	1.694	5,729
Zn2062_A		504.9	ug/L	0.6039	0.1196	1,559
Y_3600_R		18,089	Cts/S	306.41	1.6939	18,089
Y_2243_A		8,282.4	Cts/S	45.964	0.55497	8,282.4
Y_3600_A		142,920	Cts/S	2,078.4	1.4542	142,920

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:53:35PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:53:35PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3500	ug/L	0.04409	12.59	-10.63
Al3961_R		9.812	ug/L	0.9049	9.222	4.095
As1891_A		-0.3429	ug/L	0.5147	150.1	-1.672
B_2089_A		1.753	ug/L	0.1904	10.86	7.123
Ba4554_R		0.06630	ug/L	0.1141	172.1	17.17
Be3130_R		0.2602	ug/L	0.03819	14.68	22.58
Ca3158_R		7.930	ug/L	2.734	34.47	-10.49
Cd2265_A		0.2297	ug/L	0.07813	34.01	2.607
Co2286_A		0.2215	ug/L	0.2321	104.8	4.047
Cr2677_A		0.4068	ug/L	0.1163	28.59	4.590
Cu3273_A		0.8587	ug/L	0.5726	66.68	-23.32
Fe2599_R		10.64	ug/L	0.7010	6.590	26.98
K_7664_R		16.20	ug/L	7.499	46.28	-86.51
Li6707_R		1.509	ug/L	0.7990	52.94	17.18
Mg2025_A		9.119	ug/L	0.4769	5.229	-4.696
Mn2576_R		-0.1369	ug/L	0.1067	77.90	-0.2796
Mo2020_A		0.8122	ug/L	0.2298	28.29	2.266
Na5895_R		8.678	ug/L	10.14	116.9	46.09
Ni2316_A		0.6472	ug/L	0.1505	23.25	1.953
Pb2203_A		0.3854	ug/L	0.01399	3.629	-0.8604
Sb2068_A		0.1284	ug/L	0.4908	382.1	0.8671
Se1960_A		1.826	ug/L	0.2562	14.03	2.951
Si2516_R		8.531	ug/L	7.672	89.92	28.92
Sn1899_A		0.7007	ug/L	0.04382	6.253	1.052
Sr4215_R		0.2717	ug/L	0.04799	17.66	-126.2
Ti3349_A		1.363	ug/L	0.09977	7.319	27.12
Tl1908_A		0.06061	ug/L	0.4688	773.5	-0.9402
V_2924_A		0.08545	ug/L	0.06378	74.64	-0.7562
Zn2062_A		0.5849	ug/L	0.05055	8.642	1.943
Y_3600_R		18,279	Cts/S	49.736	0.27209	18,279
Y_2243_A		8,437.3	Cts/S	19.640	0.23278	8,437.3
Y_3600_A		147,350	Cts/S	599.53	0.40686	147,350

SO8135-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:57:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.04285	ug/L	0.06904	161.1	-19.67
Al3961_R		224.8	ug/L	2.755	1.225	230.6
As1891_A		-2.360	ug/L	0.5528	23.43	-2.466
B_2089_A		2.850	ug/L	0.2502	8.780	8.681
Ba4554_R		1.243	ug/L	0.07942	6.391	94.21
Be3130_R		0.03576	ug/L	0.07194	201.2	0.5921
Ca3158_R		125.1	ug/L	2.990	2.389	142.1
Cd2265_A		0.04835	ug/L	0.09070	187.6	0.8585
Co2286_A		0.007004	ug/L	0.05656	807.5	3.250
Cr2677_A		1.633	ug/L	0.07424	4.547	18.70
Cu3273_A		1.297	ug/L	0.4810	37.09	-17.63
Fe2599_R		322.5	ug/L	4.076	1.264	659.5
K_7664_R		54.41	ug/L	2.242	4.121	-62.90
Li6707_R		-0.3394	ug/L	0.5225	154.0	-3.518
Mg2025_A		103.2	ug/L	0.5675	0.5500	27.15
Mn2576_R		5.267	ug/L	0.1992	3.782	59.54
Mo2020_A		0.2248	ug/L	0.003148	1.400	0.3188
Na5895_R		179.3	ug/L	7.518	4.193	382.6
Ni2316_A		29.13	ug/L	0.07362	0.2527	60.18

SO8135-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 1:57:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.9637	ug/L	0.5235	54.32	-0.2813
Sb2068_A		-0.01717	ug/L	0.3424	1,995	0.7811
Se1960_A		0.1900	ug/L	1.200	631.6	2.443
Si2516_R		462.4	ug/L	0.4404	0.09523	253.4
Sn1899_A		0.7657	ug/L	0.5088	66.45	1.076
Sr4215_R		0.5079	ug/L	0.1104	21.74	-108.0
Ti3349_A		9.876	ug/L	0.07457	0.7551	260.5
Tl1908_A		-0.9175	ug/L	0.04552	4.961	-1.516
V_2924_A		1.120	ug/L	0.2398	21.41	11.09
Zn2062_A		66.78	ug/L	0.2393	0.3583	208.5
Y_3600_R		18,152	Cts/S	180.64	0.99519	18,152
Y_2243_A		8,365.2	Cts/S	3.4449	0.041181	8,365.2
Y_3600_A		145,020	Cts/S	2,110.4	1.4552	145,020

SO8135-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:02:24PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1508	ug/L	0.06528	43.29	-17.69
Al3961_R		680.7	ug/L	12.73	1.871	715.2
As1891_A		-1.428	ug/L	0.3552	24.87	-2.123
B_2089_A		89.55	ug/L	0.2586	0.2888	138.1
Ba4554_R		2.788	ug/L	0.03346	1.200	196.7
Be3130_R		0.05013	ug/L	0.06384	127.4	0.9046
Ca3158_R		291.6	ug/L	0.04972	0.01705	360.9
Cd2265_A		-0.02269	ug/L	0.001582	6.973	-2.321
Co2286_A		0.7711	ug/L	0.01891	2.453	7.964
Cr2677_A		111.2	ug/L	0.01856	0.01670	1,283
Cu3273_A		3.204	ug/L	0.1146	3.577	5.493
Fe2599_R		1,062	ug/L	9.059	0.8529	2,173
K_7664_R		71.35	ug/L	22.85	32.03	-53.00
Li6707_R		0.4532	ug/L	1.659	366.2	5.390
Mg2025_A		238.4	ug/L	1.909	0.8008	72.87
Mn2576_R		14.64	ug/L	0.4160	2.842	164.2
Mo2020_A		0.2769	ug/L	0.09521	34.39	0.4976
Na5895_R		185.2	ug/L	2.764	1.493	396.6
Ni2316_A	W	2,644	ug/L	5.806	0.2196	5,410
Pb2203_A		1.093	ug/L	0.7023	64.28	-0.02325
Sb2068_A		-0.5397	ug/L	0.3126	57.91	-0.1580
Se1960_A		1.320	ug/L	0.1312	9.943	2.798
Si2516_R		1,485	ug/L	31.51	2.121	764.3
Sn1899_A		0.5117	ug/L	0.3252	63.56	0.9472
Sr4215_R		2.011	ug/L	0.07818	3.888	1.644
Ti3349_A		28.74	ug/L	0.3572	1.243	779.2
Tl1908_A		-0.5798	ug/L	0.1495	25.79	-1.331
V_2924_A		3.004	ug/L	0.1255	4.177	29.41
Zn2062_A		81.33	ug/L	0.4908	0.6035	253.5
Y_3600_R		18,263	Cts/S	77.503	0.42437	18,263
Y_2243_A		8,363.4	Cts/S	14.487	0.17322	8,363.4
Y_3600_A		145,020	Cts/S	166.97	0.11513	145,020

SO8260-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:06:46PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8260-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:06:46PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		14.98	ug/L	0.004686	0.03128	-271.8
Al3961_R	W	463,400	ug/L	3,875	0.8363	98,410
As1891_A		-30.92	ug/L	0.5265	1.702	-9.468
B_2089_A		78.05	ug/L	2.044	2.619	27.03
Ba4554_R		1,082	ug/L	3.827	0.3535	14,320
Be3130_R		-0.02853	ug/L	0.02282	79.99	-53.69
Ca3158_R	W	137,800	ug/L	1,157	0.8401	36,130
Cd2265_A		-10.90	ug/L	0.1582	1.452	241.6
Co2286_A		348.2	ug/L	3.817	1.096	282.3
Cr2677_A		98.03	ug/L	1.097	1.119	239.3
Cu3273_A		1,050	ug/L	12.64	1.204	2,497
Fe2599_R	W	619,300	ug/L	4,309	0.6958	253,300
K_7664_R		2,746	ug/L	187.4	6.822	237.0
Li6707_R		95.61	ug/L	2.428	2.539	214.5
Mg2025_A	W	138,600	ug/L	953.9	0.6881	9,143
Mn2576_R	W	17,600	ug/L	160.7	0.9132	39,290
Mo2020_A		-4.593	ug/L	0.1536	3.344	-3.772
Na5895_R		57,520	ug/L	366.5	0.6372	22,930
Ni2316_A		88.86	ug/L	1.206	1.358	26.32
Pb2203_A		273.8	ug/L	0.7457	0.2724	45.69
Sb2068_A		-13.92	ug/L	4.346	31.21	2.148
Se1960_A		-19.79	ug/L	5.131	25.93	4.360
Si2516_R		38,000	ug/L	270.2	0.7111	3,813
Sn1899_A		56.21	ug/L	0.2052	0.3650	6.213
Sr4215_R		509.1	ug/L	2.351	0.4618	7,346
Ti3349_A	W	6,437	ug/L	82.20	1.277	34,790
Tl1908_A		-9.551	ug/L	0.2024	2.119	-4.459
V_2924_A		2,577	ug/L	25.53	0.9906	5,785
Zn2062_A		702.2	ug/L	7.045	1.003	427.9
Y_3600_R		18,299	Cts/S	82.167	0.44903	18,299
Y_2243_A		8,166.6	Cts/S	45.702	0.55962	8,166.6
Y_3600_A		142,740	Cts/S	1,051.5	0.73670	142,740

SO8260-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:11:04PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		15.26	ug/L	1.493	9.787	-328.2
Al3961_R	W	595,700	ug/L	1,035	0.1737	126,700
As1891_A		-38.83	ug/L	1.389	3.577	-11.31
B_2089_A		86.96	ug/L	1.270	1.461	29.47
Ba4554_R		466.7	ug/L	1.638	0.3509	6,192
Be3130_R		-0.1347	ug/L	0.1332	98.84	-38.36
Ca3158_R	W	143,700	ug/L	406.9	0.2831	37,730
Cd2265_A		-12.44	ug/L	1.176	9.457	294.8
Co2286_A		292.5	ug/L	2.199	0.7518	237.9
Cr2677_A		68.04	ug/L	0.4232	0.6220	170.4
Cu3273_A		1,109	ug/L	0.8548	0.07705	2,616
Fe2599_R	W	754,500	ug/L	2,786	0.3692	309,000
K_7664_R		2,065	ug/L	37.52	1.817	154.4
Li6707_R		114.5	ug/L	0.8076	0.7056	257.1
Mg2025_A	W	183,500	ug/L	840.3	0.4579	12,050
Mn2576_R	W	11,100	ug/L	35.38	0.3189	24,780
Mo2020_A		-7.229	ug/L	1.030	14.25	-5.407
Na5895_R		71,150	ug/L	233.9	0.3287	28,390
Ni2316_A		113.8	ug/L	0.2074	0.1823	33.99

SO8260-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:11:04PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		17.44	ug/L	4.986	28.59	-7.209
Sb2068_A		-10.85	ug/L	6.000	55.30	3.083
Se1960_A		-9.681	ug/L	3.850	39.77	5.349
Si2516_R		34,820	ug/L	152.3	0.4374	3,498
Sn1899_A		55.00	ug/L	1.655	3.010	6.064
Sr4215_R		315.2	ug/L	0.6109	0.1938	4,499
Ti3349_A	W	5,865	ug/L	6.301	0.1074	31,260
Tl1908_A		-7.905	ug/L	0.5629	7.120	-3.354
V_2924_A		3,345	ug/L	5.811	0.1737	7,409
Zn2062_A		850.5	ug/L	1.735	0.2040	515.8
Y_3600_R		18,325	Cts/S	29.853	0.16291	18,325
Y_2243_A		8,127.8	Cts/S	27.916	0.34347	8,127.8
Y_3600_A		140,730	Cts/S	48.294	0.034316	140,730

SO8329-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:15:26PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		13.59	ug/L	0.5020	3.693	-225.1
Al3961_R	W	356,600	ug/L	3,471	0.9732	76,000
As1891_A		-22.39	ug/L	0.001902	0.008494	-7.791
B_2089_A		57.64	ug/L	2.094	3.634	21.19
Ba4554_R		713.8	ug/L	0.09423	0.01320	9,481
Be3130_R		0.4219	ug/L	0.2041	48.39	-52.27
Ca3158_R	W	218,100	ug/L	1,140	0.5229	57,390
Cd2265_A		-9.884	ug/L	0.05203	0.5264	197.0
Co2286_A		248.7	ug/L	1.514	0.6087	206.5
Cr2677_A		84.87	ug/L	0.4525	0.5332	204.7
Cu3273_A		893.3	ug/L	0.2120	0.02373	2,114
Fe2599_R	W	508,300	ug/L	1,208	0.2376	208,600
K_7664_R		2,880	ug/L	58.49	2.031	254.0
Li6707_R		72.08	ug/L	4.686	6.502	162.3
Mg2025_A		109,800	ug/L	296.4	0.2698	7,277
Mn2576_R	W	7,710	ug/L	26.89	0.3488	17,250
Mo2020_A		-3.715	ug/L	0.07559	2.035	-3.068
Na5895_R		23,450	ug/L	147.3	0.6282	9,397
Ni2316_A		76.88	ug/L	0.08457	0.1100	23.40
Pb2203_A		2,862	ug/L	16.78	0.5864	562.5
Sb2068_A		-10.27	ug/L	0.3763	3.662	2.009
Se1960_A		-3.701	ug/L	4.772	128.9	4.502
Si2516_R		38,980	ug/L	306.1	0.7851	3,926
Sn1899_A		50.08	ug/L	1.667	3.329	5.636
Sr4215_R		2,351	ug/L	1.625	0.06912	34,570
Ti3349_A	W	6,618	ug/L	9.667	0.1461	35,710
Tl1908_A		-3.730	ug/L	0.5798	15.55	-2.733
V_2924_A		2,216	ug/L	12.60	0.5686	4,972
Zn2062_A		964.0	ug/L	1.515	0.1571	590.3
Y_3600_R		18,358	Cts/S	144.24	0.78572	18,358
Y_2243_A		8,205.4	Cts/S	13.238	0.16133	8,205.4
Y_3600_A		142,500	Cts/S	304.02	0.21335	142,500

SO8329-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:19:42PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8329-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:19:42PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		9.865	ug/L	0.9661	9.793	-273.0
Al3961_R	W	354,600	ug/L	3,440	0.9702	76,490
As1891_A		-20.62	ug/L	1.183	5.739	-8.478
B_2089_A		39.47	ug/L	1.504	3.810	16.09
Ba4554_R		650.7	ug/L	5.490	0.8438	8,754
Be3130_R		1.635	ug/L	0.3066	18.75	29.66
Ca3158_R		49,860	ug/L	681.9	1.368	13,270
Cd2265_A		-11.12	ug/L	0.3915	3.521	237.8
Co2286_A		177.2	ug/L	2.782	1.570	147.5
Cr2677_A		137.5	ug/L	0.1775	0.1291	328.9
Cu3273_A		716.9	ug/L	9.003	1.256	1,739
Fe2599_R	W	603,600	ug/L	7,876	1.305	250,800
K_7664_R		4,105	ug/L	76.67	1.868	408.2
Li6707_R		90.36	ug/L	1.746	1.933	206.0
Mg2025_A		114,600	ug/L	1,165	1.017	7,701
Mn2576_R	W	6,735	ug/L	66.18	0.9827	15,250
Mo2020_A		-5.170	ug/L	0.2496	4.828	-4.052
Na5895_R		31,190	ug/L	304.2	0.9753	12,640
Ni2316_A		83.43	ug/L	2.965	3.554	24.86
Pb2203_A		388.3	ug/L	2.734	0.7041	71.69
Sb2068_A		-11.40	ug/L	3.995	35.03	2.371
Se1960_A		-5.434	ug/L	1.612	29.67	4.731
Si2516_R		50,780	ug/L	552.1	1.087	5,165
Sn1899_A		46.82	ug/L	0.8027	1.714	5.389
Sr4215_R		496.5	ug/L	4.953	0.9976	7,275
Ti3349_A		2,236	ug/L	25.74	1.151	12,170
Tl1908_A		-9.004	ug/L	6.123	68.01	-2.813
V_2924_A		2,273	ug/L	20.22	0.8896	5,142
Zn2062_A		733.2	ug/L	12.21	1.665	455.4
Y_3600_R		18,591	Cts/S	73.739	0.39664	18,591
Y_2243_A		8,322.6	Cts/S	33.074	0.39740	8,322.6
Y_3600_A		143,830	Cts/S	993.61	0.69081	143,830

SO8329-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:23:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		11.82	ug/L	0.1365	1.155	-250.2
Al3961_R	W	395,200	ug/L	3,214	0.8133	84,960
As1891_A		-15.84	ug/L	0.1594	1.006	-7.798
B_2089_A		46.55	ug/L	1.165	2.503	18.05
Ba4554_R		768.8	ug/L	8.011	1.042	10,300
Be3130_R		2.015	ug/L	0.05050	2.506	10.57
Ca3158_R		116,200	ug/L	1,435	1.235	30,840
Cd2265_A		-10.18	ug/L	0.6745	6.623	219.3
Co2286_A		223.6	ug/L	0.07098	0.03174	184.8
Cr2677_A		170.7	ug/L	3.112	1.822	405.3
Cu3273_A		684.8	ug/L	22.12	3.230	1,653
Fe2599_R	W	559,200	ug/L	7,047	1.260	231,500
K_7664_R		6,537	ug/L	28.70	0.4391	705.5
Li6707_R		86.97	ug/L	3.781	4.347	197.5
Mg2025_A		113,800	ug/L	35.31	0.03103	7,587
Mn2576_R	W	10,250	ug/L	89.51	0.8736	23,140
Mo2020_A		-4.764	ug/L	0.3700	7.767	-3.786
Na5895_R		31,700	ug/L	241.1	0.7605	12,800
Ni2316_A		132.6	ug/L	1.453	1.096	45.23

SO8329-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:23:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		682.9	ug/L	4.149	0.6076	129.3
Sb2068_A		-10.86	ug/L	1.126	10.37	2.277
Se1960_A		-0.2703	ug/L	6.365	2,355	5.037
Si2516_R		44,330	ug/L	326.3	0.7361	4,497
Sn1899_A		47.37	ug/L	1.110	2.344	5.402
Sr4215_R		692.7	ug/L	6.019	0.8689	10,170
Ti3349_A		3,996	ug/L	91.18	2.282	21,790
Tl1908_A		-3.172	ug/L	3.429	108.1	-2.716
V_2924_A		2,040	ug/L	61.86	3.032	4,620
Zn2062_A		1,072	ug/L	0.6901	0.06435	660.9
Y_3600_R		18,524	Cts/S	323.32	1.7454	18,524
Y_2243_A		8,258.5	Cts/S	1.2881	0.015597	8,258.5
Y_3600_A		144,040	Cts/S	2,601.3	1.8060	144,040

SO8329-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:28:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		11.05	ug/L	1.587	14.36	-286.9
Al3961_R	W	370,700	ug/L	2,184	0.5892	79,200
As1891_A		-27.70	ug/L	0.7419	2.679	-9.288
B_2089_A		36.20	ug/L	0.7745	2.140	14.96
Ba4554_R		1,527	ug/L	11.68	0.7647	20,330
Be3130_R		1.240	ug/L	0.1634	13.18	28.11
Ca3158_R		29,270	ug/L	167.8	0.5734	7,707
Cd2265_A		-11.40	ug/L	0.4124	3.619	252.9
Co2286_A		211.8	ug/L	0.01629	0.007689	172.8
Cr2677_A		112.2	ug/L	1.739	1.549	271.5
Cu3273_A		678.8	ug/L	3.203	0.4720	1,651
Fe2599_R	W	645,500	ug/L	5,389	0.8350	265,600
K_7664_R		4,002	ug/L	164.8	4.118	391.7
Li6707_R		82.18	ug/L	2.169	2.639	185.6
Mg2025_A		97,030	ug/L	260.7	0.2687	6,452
Mn2576_R	W	6,308	ug/L	40.44	0.6410	14,140
Mo2020_A		-4.473	ug/L	0.3786	8.464	-3.580
Na5895_R		42,460	ug/L	361.1	0.8504	17,040
Ni2316_A		64.29	ug/L	0.2979	0.4634	16.23
Pb2203_A		44.52	ug/L	5.792	13.01	2.073
Sb2068_A		-10.42	ug/L	0.9571	9.184	2.611
Se1960_A		-7.273	ug/L	10.54	144.9	4.716
Si2516_R		41,610	ug/L	320.9	0.7713	4,194
Sn1899_A		49.47	ug/L	2.712	5.482	5.596
Sr4215_R		339.5	ug/L	2.593	0.7638	4,881
Ti3349_A		2,081	ug/L	4.118	0.1979	11,300
Tl1908_A		-1.126	ug/L	0.8431	74.85	-1.763
V_2924_A		2,603	ug/L	1.613	0.06194	5,877
Zn2062_A		618.4	ug/L	1.241	0.2007	380.1
Y_3600_R		18,413	Cts/S	83.771	0.45496	18,413
Y_2243_A		8,236.1	Cts/S	16.276	0.19761	8,236.1
Y_3600_A		143,530	Cts/S	259.15	0.18055	143,530

SO8329-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:32:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8329-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:32:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		13.18	ug/L	1.929	14.63	-297.9
Al3961_R	W	398,600	ug/L	971.3	0.2437	85,870
As1891_A		-26.87	ug/L	5.062	18.84	-9.381
B_2089_A		67.52	ug/L	0.01784	0.02643	24.05
Ba4554_R		1,053	ug/L	2.247	0.2135	14,130
Be3130_R		2.401	ug/L	0.04532	1.887	7.621
Ca3158_R		28,750	ug/L	3.346	0.01164	7,633
Cd2265_A		-11.51	ug/L	0.6271	5.450	260.4
Co2286_A		269.6	ug/L	0.9331	0.3461	221.2
Cr2677_A		207.0	ug/L	3.056	1.477	487.7
Cu3273_A		815.7	ug/L	5.092	0.6242	1,966
Fe2599_R	W	664,700	ug/L	4,952	0.7450	275,800
K_7664_R		2,450	ug/L	57.04	2.329	203.8
Li6707_R		80.70	ug/L	1.761	2.182	183.7
Mg2025_A		84,820	ug/L	22.01	0.02595	5,612
Mn2576_R	W	9,478	ug/L	32.13	0.3390	21,450
Mo2020_A		-5.139	ug/L	0.4964	9.660	-4.030
Na5895_R		41,210	ug/L	55.68	0.1351	16,670
Ni2316_A		99.27	ug/L	0.5525	0.5566	29.87
Pb2203_A		53.29	ug/L	0.2903	0.5447	3.319
Sb2068_A		-10.70	ug/L	1.572	14.70	2.722
Se1960_A		0.6429	ug/L	13.02	2,025	5.362
Si2516_R		38,500	ug/L	38.14	0.09907	3,917
Sn1899_A		52.74	ug/L	4.770	9.044	5.892
Sr4215_R		348.3	ug/L	3.538	1.016	5,053
Ti3349_A	W	5,342	ug/L	32.78	0.6137	28,960
Tl1908_A		-9.748	ug/L	2.189	22.45	-3.467
V_2924_A		2,605	ug/L	14.08	0.5404	5,869
Zn2062_A		654.0	ug/L	3.740	0.5719	399.9
Y_3600_R		18,567	Cts/S	3.3316	0.017944	18,567
Y_2243_A		8,195.6	Cts/S	6.0334	0.073618	8,195.6
Y_3600_A		143,180	Cts/S	859.39	0.60022	143,180

SO8397-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:36:46PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		19.79	ug/L	0.2909	1.470	-295.4
Al3961_R	W	475,800	ug/L	23,770	4.997	101,800
As1891_A	F	-40.80	ug/L	0.08673	0.2126	-10.75
B_2089_A		75.92	ug/L	1.104	1.454	26.27
Ba4554_R		899.1	ug/L	45.65	5.078	11,990
Be3130_R		0.07690	ug/L	0.04348	56.54	-82.55
Ca3158_R		95,410	ug/L	4,436	4.649	25,190
Cd2265_A		-9.284	ug/L	4.906	52.84	276.9
Co2286_A		265.5	ug/L	0.1286	0.04843	221.3
Cr2677_A		135.5	ug/L	3.512	2.591	323.0
Cu3273_A		797.4	ug/L	17.23	2.160	1,906
Fe2599_R	W	693,400	ug/L	26,180	3.775	285,700
K_7664_R		2,380	ug/L	320.5	13.46	193.5
Li6707_R		98.08	ug/L	2.446	2.493	221.7
Mg2025_A	W	139,100	ug/L	72.01	0.05178	9,122
Mn2576_R	W	6,918	ug/L	333.7	4.823	15,520
Mo2020_A		-5.915	ug/L	0.1675	2.832	-4.483
Na5895_R		36,250	ug/L	1,755	4.840	14,570
Ni2316_A		172.4	ug/L	1.068	0.6195	58.21

SO8397-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:36:46PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		412.2	ug/L	5.817	1.411	72.60
Sb2068_A		-8.546	ug/L	0.6338	7.416	3.039
Se1960_A		-12.55	ug/L	8.218	65.48	4.674
Si2516_R		35,400	ug/L	1,613	4.556	3,581
Sn1899_A		51.51	ug/L	0.8376	1.626	5.718
Sr4215_R		425.0	ug/L	23.96	5.638	6,151
Ti3349_A	W	9,118	ug/L	206.8	2.268	49,140
Tl1908_A		-6.676	ug/L	0.2779	4.162	-3.159
V_2924_A		2,950	ug/L	59.18	2.006	6,615
Zn2062_A		712.6	ug/L	4.581	0.6429	431.9
Y_3600_R		18,440	Cts/S	392.44	2.1282	18,440
Y_2243_A		8,122.9	Cts/S	16.102	0.19823	8,122.9
Y_3600_A		142,330	Cts/S	2,354.8	1.6545	142,330

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:41:04PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		506.9	ug/L	6.315	1.246	10,510
Al3961_R		12,940	ug/L	145.7	1.126	13,600
As1891_A		520.2	ug/L	1.524	0.2929	199.3
B_2089_A		513.0	ug/L	1.078	0.2101	772.8
Ba4554_R		503.1	ug/L	7.697	1.530	32,880
Be3130_R		484.0	ug/L	6.543	1.352	45,770
Ca3158_R		12,990	ug/L	108.1	0.8323	16,820
Cd2265_A		499.8	ug/L	1.739	0.3479	6,489
Co2286_A		526.5	ug/L	0.7509	0.1426	2,047
Cr2677_A		496.6	ug/L	5.169	1.041	5,657
Cu3273_A		497.5	ug/L	7.244	1.456	5,829
Fe2599_R		12,720	ug/L	159.1	1.251	25,710
K_7664_R		12,770	ug/L	160.4	1.256	7,563
Li6707_R		518.1	ug/L	7.620	1.471	5,735
Mg2025_A	W	13,320	ug/L	24.08	0.1808	4,440
Mn2576_R		518.5	ug/L	2.405	0.4639	5,726
Mo2020_A		519.6	ug/L	0.8982	0.1729	1,674
Na5895_R		12,640	ug/L	140.1	1.109	24,880
Ni2316_A		512.1	ug/L	0.9681	0.1890	1,036
Pb2203_A		507.4	ug/L	4.015	0.7913	502.7
Sb2068_A	W	534.7	ug/L	0.4012	0.07503	288.2
Se1960_A		523.7	ug/L	1.725	0.3294	157.0
Si2516_R	W	13,610	ug/L	106.8	0.7847	6,737
Sn1899_A	W	539.6	ug/L	1.390	0.2577	268.2
Sr4215_R		496.1	ug/L	8.691	1.752	35,930
Ti3349_A		511.8	ug/L	6.303	1.232	13,870
Tl1908_A	W	537.3	ug/L	0.6718	0.1250	310.7
V_2924_A		518.7	ug/L	6.373	1.228	5,798
Zn2062_A		497.4	ug/L	2.106	0.4234	1,523
Y_3600_R		18,083	Cts/S	244.69	1.3531	18,083
Y_2243_A		8,215.6	Cts/S	17.501	0.21302	8,215.6
Y_3600_A		143,110	Cts/S	957.94	0.66939	143,110

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:45:13PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:45:13PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2355	ug/L	0.01754	7.447	-13.11
Al3961_R		8.744	ug/L	5.962	68.19	3.049
As1891_A		-0.05465	ug/L	0.1730	316.6	-1.545
B_2089_A		1.049	ug/L	0.2755	26.26	6.017
Ba4554_R		0.1022	ug/L	0.06148	60.17	19.90
Be3130_R		0.2335	ug/L	0.006573	2.816	20.37
Ca3158_R		3.669	ug/L	1.352	36.85	-16.34
Cd2265_A		0.1849	ug/L	0.04838	26.17	1.994
Co2286_A		0.09151	ug/L	0.1691	184.8	3.502
Cr2677_A		0.4045	ug/L	0.1526	37.72	4.569
Cu3273_A		1.167	ug/L	0.3630	31.10	-19.63
Fe2599_R		9.517	ug/L	0.5432	5.707	25.10
K_7664_R		13.52	ug/L	9.296	68.77	-89.62
Li6707_R		-0.8765	ug/L	0.1445	16.49	-9.677
Mg2025_A		4.457	ug/L	0.9675	21.71	-6.242
Mn2576_R		0.1874	ug/L	0.06233	33.25	3.402
Mo2020_A		0.8387	ug/L	0.2028	24.18	2.335
Na5895_R		3.670	ug/L	1.116	30.40	36.74
Ni2316_A		0.3161	ug/L	0.2019	63.88	1.261
Pb2203_A		-0.2585	ug/L	0.009016	3.487	-1.507
Sb2068_A		-0.6023	ug/L	0.08309	13.80	0.4590
Se1960_A		0.5534	ug/L	1.409	254.5	2.546
Si2516_R		16.48	ug/L	0.02425	0.1471	33.45
Sn1899_A		0.5208	ug/L	0.8942	171.7	0.9523
Sr4215_R		0.1548	ug/L	0.04204	27.16	-137.1
Ti3349_A		1.016	ug/L	0.06167	6.071	17.45
Tl1908_A		-0.3644	ug/L	0.4626	126.9	-1.184
V_2924_A		-0.08004	ug/L	0.1331	166.3	-2.693
Zn2062_A		0.3045	ug/L	0.07491	24.61	1.052
Y_3600_R		18,594	Cts/S	235.31	1.2655	18,594
Y_2243_A		8,371.8	Cts/S	25.007	0.29870	8,371.8
Y_3600_A		147,680	Cts/S	1,177.7	0.79752	147,680

SO8397-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:49:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		23.25	ug/L	2.818	12.12	-347.3
Al3961_R	W	581,500	ug/L	28,230	4.854	124,200
As1891_A		-33.47	ug/L	2.887	8.626	-11.00
B_2089_A		77.60	ug/L	2.368	3.052	26.54
Ba4554_R		583.8	ug/L	31.64	5.420	7,775
Be3130_R		-0.9722	ug/L	0.3551	36.53	-184.6
Ca3158_R	W	195,100	ug/L	8,543	4.380	51,450
Cd2265_A		-7.463	ug/L	4.149	55.60	319.8
Co2286_A		362.2	ug/L	0.3225	0.08904	302.5
Cr2677_A		177.3	ug/L	2.241	1.264	420.3
Cu3273_A		1,100	ug/L	13.83	1.258	2,611
Fe2599_R	W	784,500	ug/L	26,630	3.395	322,700
K_7664_R		2,864	ug/L	80.73	2.819	252.6
Li6707_R		128.7	ug/L	8.897	6.915	290.1
Mg2025_A	W	224,000	ug/L	913.6	0.4079	14,580
Mn2576_R	W	10,740	ug/L	505.9	4.709	24,100
Mo2020_A		-7.893	ug/L	0.8688	11.01	-5.777
Na5895_R		37,700	ug/L	1,616	4.285	15,130
Ni2316_A		219.4	ug/L	3.013	1.373	74.86

SO8397-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:49:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		569.0	ug/L	3.788	0.6657	100.9
Sb2068_A		-13.84	ug/L	5.336	38.56	2.919
Se1960_A		-2.957	ug/L	22.35	755.9	5.755
Si2516_R		47,820	ug/L	2,077	4.343	4,828
Sn1899_A		52.38	ug/L	5.152	9.836	5.761
Sr4215_R		867.0	ug/L	47.71	5.503	12,680
Ti3349_A	W	15,740	ug/L	180.6	1.147	84,810
Tl1908_A		-2.875	ug/L	1.861	64.73	-3.799
V_2924_A		3,347	ug/L	47.27	1.412	7,509
Zn2062_A		1,156	ug/L	3.151	0.2726	695.3
Y_3600_R		18,414	Cts/S	456.01	2.4764	18,414
Y_2243_A		8,061.1	Cts/S	24.157	0.29967	8,061.1
Y_3600_A		142,270	Cts/S	1,163.7	0.81792	142,270

SO8260-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:53:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1759	ug/L	0.1828	103.9	-21.77
Al3961_R		24.01	ug/L	1.842	7.671	18.89
As1891_A		-1.984	ug/L	1.144	57.67	-2.286
B_2089_A		0.6375	ug/L	0.03717	5.832	5.329
Ba4554_R		0.2087	ug/L	0.01492	7.152	26.22
Be3130_R		0.03470	ug/L	0.04131	119.1	0.9557
Ca3158_R		29.76	ug/L	3.549	11.92	17.87
Cd2265_A		0.02434	ug/L	0.06619	271.9	-0.05818
Co2286_A		0.08834	ug/L	0.009896	11.20	3.464
Cr2677_A		-0.03100	ug/L	0.09162	295.6	-0.5314
Cu3273_A		0.9059	ug/L	0.5061	55.87	-22.50
Fe2599_R		36.72	ug/L	0.2509	0.6832	79.20
K_7664_R		22.84	ug/L	19.82	86.77	-81.40
Li6707_R		-0.3620	ug/L	0.7633	210.9	-3.721
Mg2025_A		16.84	ug/L	0.6055	3.597	-2.031
Mn2576_R		0.1835	ug/L	0.03168	17.26	3.246
Mo2020_A		0.1140	ug/L	0.01147	10.06	-0.04408
Na5895_R		42.59	ug/L	7.141	16.77	112.0
Ni2316_A		0.6468	ug/L	0.1839	28.44	1.907
Pb2203_A		-0.2804	ug/L	0.1290	46.00	-1.516
Sb2068_A		-0.7822	ug/L	0.8581	109.7	0.3611
Se1960_A		0.6964	ug/L	1.728	248.2	2.566
Si2516_R		49.92	ug/L	5.246	10.51	48.90
Sn1899_A		-0.3094	ug/L	0.4838	156.4	0.5286
Sr4215_R		-0.03236	ug/L	0.2240	692.4	-146.6
Ti3349_A		2.094	ug/L	0.02922	1.395	47.02
Tl1908_A		-1.501	ug/L	1.078	71.83	-1.837
V_2924_A		0.01287	ug/L	0.1082	840.8	-1.518
Zn2062_A		21.20	ug/L	0.1172	0.5527	65.70
Y_3600_R		18,039	Cts/S	20.517	0.11374	18,039
Y_2243_A		8,294.1	Cts/S	0.44141	0.0053220	8,294.1
Y_3600_A		145,850	Cts/S	161.01	0.11040	145,850

SO8329-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:58:22PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8329-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 2:58:22PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2623	ug/L	0.1050	40.02	-12.44
Al3961_R		24.72	ug/L	2.153	8.710	19.92
As1891_A		-1.651	ug/L	0.9198	55.71	-2.158
B_2089_A		0.4612	ug/L	0.04734	10.27	5.078
Ba4554_R		-0.04295	ug/L	0.04159	96.83	9.946
Be3130_R		0.05936	ug/L	0.02381	40.11	3.396
Ca3158_R		44.86	ug/L	0.3548	0.7908	37.92
Cd2265_A		0.03333	ug/L	0.02222	66.65	0.02931
Co2286_A		-0.2074	ug/L	0.09716	46.85	2.302
Cr2677_A		0.1510	ug/L	0.08431	55.85	1.583
Cu3273_A		0.9618	ug/L	0.09036	9.395	-21.87
Fe2599_R		23.92	ug/L	0.07127	0.2979	54.13
K_7664_R		16.88	ug/L	34.67	205.4	-86.17
Li6707_R		1.113	ug/L	1.181	106.1	12.78
Mg2025_A		10.39	ug/L	0.3732	3.591	-4.207
Mn2576_R		0.5865	ug/L	0.006100	1.040	7.792
Mo2020_A		0.2083	ug/L	0.02346	11.26	0.2633
Na5895_R		30.76	ug/L	3.348	10.88	90.02
Ni2316_A		0.7424	ug/L	0.01118	1.506	2.106
Pb2203_A		-0.1328	ug/L	0.4826	363.5	-1.369
Sb2068_A		0.4523	ug/L	0.1272	28.12	1.032
Se1960_A		1.280	ug/L	1.381	107.9	2.743
Si2516_R		45.91	ug/L	0.7816	1.702	47.56
Sn1899_A		0.4432	ug/L	0.5234	118.1	0.9060
Sr4215_R		0.04780	ug/L	0.03727	77.99	-142.7
Ti3349_A		0.9939	ug/L	0.05837	5.873	16.67
Tl1908_A		-1.643	ug/L	0.1668	10.15	-1.923
V_2924_A		-0.07025	ug/L	0.2848	405.4	-2.501
Zn2062_A		23.97	ug/L	0.08469	0.3533	74.38
Y_3600_R		18,285	Cts/S	77.279	0.42264	18,285
Y_2243_A		8,304.7	Cts/S	22.838	0.27501	8,304.7
Y_3600_A		146,190	Cts/S	31.019	0.021218	146,190

SO8397-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:02:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2520	ug/L	0.001163	0.4612	-12.63
Al3961_R		32.60	ug/L	1.614	4.951	28.48
As1891_A		-1.806	ug/L	0.04499	2.491	-2.235
B_2089_A		0.7908	ug/L	0.1708	21.60	5.604
Ba4554_R		0.03841	ug/L	0.1873	487.7	15.45
Be3130_R		0.08054	ug/L	0.01205	14.97	5.468
Ca3158_R		24.24	ug/L	0.4277	1.764	10.97
Cd2265_A		-0.05114	ug/L	0.02608	51.00	-1.097
Co2286_A		-0.1075	ug/L	0.07117	66.23	2.712
Cr2677_A		0.1464	ug/L	0.09024	61.62	1.528
Cu3273_A		0.6577	ug/L	0.1614	24.53	-25.52
Fe2599_R		17.82	ug/L	0.7746	4.347	41.99
K_7664_R		48.41	ug/L	31.53	65.12	-67.53
Li6707_R		0.8086	ug/L	1.152	142.5	9.411
Mg2025_A		10.96	ug/L	1.862	16.99	-4.048
Mn2576_R		0.2349	ug/L	0.02015	8.579	3.896
Mo2020_A		0.07174	ug/L	0.2761	384.9	-0.1818
Na5895_R		39.91	ug/L	1.706	4.274	109.1
Ni2316_A		0.8464	ug/L	0.1856	21.93	2.334

SO8397-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:02:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.1035	ug/L	0.002728	2.636	-1.141
Sb2068_A		-0.7448	ug/L	0.1821	24.44	0.3841
Se1960_A		0.7723	ug/L	0.8859	114.7	2.611
Si2516_R		36.66	ug/L	3.617	9.867	43.29
Sn1899_A		-0.1617	ug/L	0.9875	610.7	0.6085
Sr4215_R		0.1454	ug/L	0.1611	110.7	-136.6
Ti3349_A		0.6940	ug/L	0.07222	10.41	8.356
Tl1908_A		-1.177	ug/L	0.9780	83.06	-1.662
V_2924_A		-0.2611	ug/L	0.1003	38.41	-4.687
Zn2062_A		13.59	ug/L	0.2023	1.488	42.54
Y_3600_R		18,430	Cts/S	4.3935	0.023839	18,430
Y_2243_A		8,367.5	Cts/S	20.186	0.24124	8,367.5
Y_3600_A		146,080	Cts/S	87.584	0.059955	146,080

SO7393-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:07:13PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2409	ug/L	0.1280	53.12	-48.87
Al3961_R		38.15	ug/L	4.558	11.95	104.3
As1891_A		57.99	ug/L	0.2143	0.3695	20.63
B_2089_A		15.52	ug/L	0.03909	0.2519	27.23
Ba4554_R		29.48	ug/L	0.7304	2.477	1,975
Be3130_R		0.08407	ug/L	0.06352	75.56	5.823
Ca3158_R	W	77,190	ug/L	1,532	1.985	101,900
Cd2265_A		-0.1727	ug/L	0.03036	17.58	20.57
Co2286_A		0.2727	ug/L	0.05686	20.85	4.332
Cr2677_A		0.5849	ug/L	0.1468	25.10	8.023
Cu3273_A		0.2728	ug/L	0.3226	118.3	-21.75
Fe2599_R		10,620	ug/L	273.2	2.572	21,870
K_7664_R		4,718	ug/L	74.69	1.583	2,785
Li6707_R		16.54	ug/L	1.938	11.72	186.6
Mg2025_A	W	28,160	ug/L	105.9	0.3760	9,370
Mn2576_R		225.4	ug/L	5.537	2.456	2,544
Mo2020_A		1.080	ug/L	0.04560	4.223	3.066
Na5895_R		12,970	ug/L	178.6	1.377	26,020
Ni2316_A		-0.07967	ug/L	0.2013	252.7	-0.3964
Pb2203_A		0.9791	ug/L	0.4505	46.01	-0.1432
Sb2068_A		-2.137	ug/L	1.282	60.01	-0.1351
Se1960_A		-0.8743	ug/L	0.5984	68.44	2.290
Si2516_R		7,534	ug/L	215.3	2.858	3,807
Sn1899_A		-0.2776	ug/L	0.4116	148.3	0.5411
Sr4215_R		415.7	ug/L	9.371	2.254	30,640
Ti3349_A		0.1825	ug/L	0.1231	67.45	-5.766
Tl1908_A		0.2098	ug/L	0.9007	429.3	-0.9780
V_2924_A		0.3110	ug/L	0.01683	5.410	0.6086
Zn2062_A		4.852	ug/L	0.005287	0.1090	15.03
Y_3600_R		18,423	Cts/S	323.09	1.7537	18,423
Y_2243_A		8,246.0	Cts/S	23.208	0.28144	8,246.0
Y_3600_A		146,030	Cts/S	561.62	0.38458	146,030

SO7393-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:11:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO7393-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:11:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1350	ug/L	0.1182	87.52	-26.93
Al3961_R		-63.93	ug/L	12.95	20.26	33.63
As1891_A		24.42	ug/L	0.2869	1.175	7.628
B_2089_A		30.10	ug/L	0.4246	1.411	47.09
Ba4554_R		36.56	ug/L	0.8784	2.403	2,415
Be3130_R		0.008739	ug/L	0.06969	797.4	-1.337
Ca3158_R	W	119,900	ug/L	2,226	1.856	156,400
Cd2265_A		-0.04354	ug/L	0.01364	31.33	4.811
Co2286_A		0.1697	ug/L	0.1586	93.47	3.668
Cr2677_A		0.7799	ug/L	0.006436	0.8253	9.892
Cu3273_A		1.414	ug/L	0.4514	31.92	-13.97
Fe2599_R		2,736	ug/L	81.73	2.987	5,566
K_7664_R		7,270	ug/L	74.24	1.021	4,290
Li6707_R		39.41	ug/L	1.956	4.963	439.0
Mg2025_A	W	59,860	ug/L	131.5	0.2197	19,280
Mn2576_R		927.8	ug/L	20.60	2.221	10,330
Mo2020_A		1.260	ug/L	0.02621	2.081	3.484
Na5895_R	W	27,300	ug/L	408.5	1.496	54,040
Ni2316_A		0.04763	ug/L	0.1016	213.2	0.4737
Pb2203_A		0.03733	ug/L	0.1466	392.7	-1.117
Sb2068_A		-1.531	ug/L	1.032	67.40	0.01112
Se1960_A		0.7191	ug/L	2.579	358.7	2.655
Si2516_R		7,438	ug/L	121.8	1.637	3,713
Sn1899_A		0.2469	ug/L	0.2293	92.89	0.7759
Sr4215_R		676.8	ug/L	18.83	2.782	49,360
Ti3349_A		0.1201	ug/L	0.1269	105.7	-7.354
Tl1908_A		0.2814	ug/L	0.6391	227.1	-1.308
V_2924_A		-0.1281	ug/L	0.02228	17.39	-6.885
Zn2062_A		0.9884	ug/L	0.2184	22.10	3.038
Y_3600_R		18,193	Cts/S	286.29	1.5736	18,193
Y_2243_A		7,976.1	Cts/S	27.076	0.33946	7,976.1
Y_3600_A		143,260	Cts/S	56.819	0.039661	143,260

SO7393-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:15:55PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3229	ug/L	0.1992	61.69	-16.49
Al3961_R		-35.80	ug/L	11.02	30.77	42.74
As1891_A		35.83	ug/L	0.2118	0.5912	11.89
B_2089_A		33.49	ug/L	0.5521	1.649	51.78
Ba4554_R		26.80	ug/L	0.1952	0.7286	1,801
Be3130_R		0.06716	ug/L	0.03642	54.22	4.243
Ca3158_R	W	96,190	ug/L	1,321	1.373	127,400
Cd2265_A		0.03080	ug/L	0.01201	38.99	5.038
Co2286_A		0.1869	ug/L	0.09471	50.67	3.715
Cr2677_A		0.9828	ug/L	0.08584	8.734	12.35
Cu3273_A		1.072	ug/L	0.2605	24.30	-18.16
Fe2599_R		2,411	ug/L	23.37	0.9691	4,983
K_7664_R		5,906	ug/L	39.33	0.6658	3,521
Li6707_R		27.01	ug/L	2.290	8.476	305.9
Mg2025_A	W	47,150	ug/L	374.1	0.7934	15,130
Mn2576_R	W	1,195	ug/L	16.59	1.389	13,500
Mo2020_A		2.465	ug/L	0.06935	2.814	7.216
Na5895_R		24,520	ug/L	252.7	1.030	49,310
Ni2316_A		0.3578	ug/L	0.4033	112.7	1.113

SO7393-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:15:55PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.3911	ug/L	1.516	387.7	-0.7843
Sb2068_A		-1.869	ug/L	1.359	72.68	-0.1681
Se1960_A		0.2474	ug/L	0.4583	185.3	2.549
Si2516_R		7,349	ug/L	131.1	1.784	3,726
Sn1899_A		-0.8485	ug/L	0.3612	42.57	0.2487
Sr4215_R		493.1	ug/L	4.591	0.9310	36,490
Ti3349_A		0.02911	ug/L	0.1021	350.8	-9.739
Tl1908_A		1.015	ug/L	0.2592	25.53	-1.046
V_2924_A		-0.3534	ug/L	0.1438	40.69	-10.48
Zn2062_A		2.217	ug/L	0.1563	7.049	6.667
Y_3600_R		18,474	Cts/S	176.34	0.95450	18,474
Y_2243_A		7,950.2	Cts/S	54.266	0.68257	7,950.2
Y_3600_A		142,390	Cts/S	93.482	0.065654	142,390

SO7393-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:20:17PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.5234	ug/L	0.03982	7.607	-50.92
Al3961_R		-20.19	ug/L	5.290	26.21	42.92
As1891_A		1.089	ug/L	1.635	150.2	-1.744
B_2089_A		27.89	ug/L	0.2773	0.9942	44.72
Ba4554_R		149.9	ug/L	1.041	0.6943	10,010
Be3130_R		0.02712	ug/L	0.03312	122.1	0.4223
Ca3158_R	W	78,220	ug/L	250.7	0.3206	103,500
Cd2265_A		-0.2162	ug/L	0.03264	15.10	36.83
Co2286_A		4.974	ug/L	0.07683	1.545	22.43
Cr2677_A		1.507	ug/L	0.2269	15.06	21.98
Cu3273_A		1.097	ug/L	0.3635	33.12	-5.470
Fe2599_R		18,560	ug/L	39.52	0.2130	38,280
K_7664_R		5,193	ug/L	27.52	0.5300	3,081
Li6707_R		3.825	ug/L	0.5519	14.43	43.53
Mg2025_A		19,970	ug/L	81.28	0.4069	6,547
Mn2576_R	W	3,106	ug/L	4.097	0.1319	35,010
Mo2020_A		-0.1781	ug/L	0.01004	5.636	-1.176
Na5895_R		9,538	ug/L	3.851	0.04038	19,180
Ni2316_A		8.361	ug/L	0.01019	0.1219	15.74
Pb2203_A		2.320	ug/L	0.1087	4.686	1.264
Sb2068_A		-1.804	ug/L	0.2834	15.71	0.2140
Se1960_A		0.2847	ug/L	0.9410	330.5	3.162
Si2516_R		11,420	ug/L	45.32	0.3969	5,768
Sn1899_A		0.08992	ug/L	0.4520	502.7	0.7134
Sr4215_R		280.7	ug/L	1.021	0.3637	20,680
Ti3349_A		0.5997	ug/L	0.1305	21.77	5.631
Tl1908_A		-0.4763	ug/L	1.096	230.2	-3.061
V_2924_A		1.492	ug/L	0.1692	11.34	2.526
Zn2062_A		6.031	ug/L	0.1124	1.864	18.38
Y_3600_R		18,454	Cts/S	192.81	1.0449	18,454
Y_2243_A		8,124.2	Cts/S	8.4700	0.10426	8,124.2
Y_3600_A		143,320	Cts/S	763.04	0.53241	143,320

SO7393-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:24:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO7393-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:24:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.01218	ug/L	0.03064	251.6	-23.37
Al3961_R		-41.60	ug/L	0.5174	1.244	45.65
As1891_A		21.07	ug/L	0.5037	2.391	6.373
B_2089_A		28.23	ug/L	0.4711	1.669	44.40
Ba4554_R		32.73	ug/L	0.07015	0.2143	2,193
Be3130_R		0.01392	ug/L	0.02168	155.7	-0.9285
Ca3158_R	W	106,400	ug/L	738.3	0.6937	140,700
Cd2265_A		-0.05273	ug/L	0.03287	62.34	4.099
Co2286_A		0.1783	ug/L	0.05903	33.11	3.695
Cr2677_A		0.7904	ug/L	0.05906	7.472	9.747
Cu3273_A		1.388	ug/L	0.7194	51.84	-14.26
Fe2599_R		2,457	ug/L	5.552	0.2260	5,068
K_7664_R		6,451	ug/L	32.57	0.5049	3,848
Li6707_R		36.92	ug/L	1.155	3.129	417.0
Mg2025_A	W	55,110	ug/L	517.2	0.9385	17,730
Mn2576_R		828.2	ug/L	4.437	0.5358	9,347
Mo2020_A		1.153	ug/L	0.1552	13.46	3.155
Na5895_R		24,160	ug/L	224.9	0.9309	48,500
Ni2316_A		0.3290	ug/L	0.4690	142.5	1.039
Pb2203_A		0.9261	ug/L	0.1358	14.67	-0.2618
Sb2068_A		-2.204	ug/L	0.07275	3.301	-0.3451
Se1960_A		-0.1054	ug/L	1.204	1,142	2.400
Si2516_R		6,632	ug/L	57.99	0.8743	3,359
Sn1899_A		-0.1460	ug/L	0.5892	403.5	0.5872
Sr4215_R		602.0	ug/L	1.367	0.2272	44,490
Ti3349_A		0.09889	ug/L	0.3360	339.8	-7.775
Tl1908_A		0.7213	ug/L	0.2939	40.74	-1.001
V_2924_A		-0.5122	ug/L	0.01332	2.600	-10.66
Zn2062_A		1.381	ug/L	0.02866	2.075	4.202
Y_3600_R		18,440	Cts/S	61.111	0.33141	18,440
Y_2243_A		7,970.2	Cts/S	38.296	0.48049	7,970.2
Y_3600_A		141,260	Cts/S	1,429.4	1.0119	141,260

SO8910-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:28:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2944	ug/L	0.01611	5.473	-27.41
Al3961_R		1,820	ug/L	19.26	1.058	1,934
As1891_A		0.2219	ug/L	1.519	684.7	-1.633
B_2089_A		66.36	ug/L	0.2218	0.3342	100.8
Ba4554_R		57.93	ug/L	1.011	1.746	3,814
Be3130_R		0.1057	ug/L	0.04463	42.20	2.987
Ca3158_R		24,340	ug/L	268.9	1.105	31,680
Cd2265_A		-0.05012	ug/L	0.03434	68.51	11.85
Co2286_A		1.921	ug/L	0.01625	0.8459	11.12
Cr2677_A		23.05	ug/L	0.1494	0.6480	266.0
Cu3273_A		24.77	ug/L	0.1622	0.6549	265.3
Fe2599_R		5,942	ug/L	152.9	2.572	12,070
K_7664_R		21,540	ug/L	163.3	0.7583	12,880
Li6707_R		2.859	ug/L	1.577	55.18	32.09
Mg2025_A		6,369	ug/L	28.35	0.4451	2,088
Mn2576_R		131.5	ug/L	0.6812	0.5181	1,460
Mo2020_A		0.8579	ug/L	0.003419	0.3986	2.324
Na5895_R		7,368	ug/L	44.96	0.6103	14,590
Ni2316_A		6.921	ug/L	0.3347	4.836	13.92

SO8910-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:28:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		3.489	ug/L	1.028	29.47	2.127
Sb2068_A		-1.945	ug/L	0.1617	8.314	-0.3025
Se1960_A		1.057	ug/L	0.1346	12.74	2.752
Si2516_R		1,959	ug/L	10.14	0.5180	994.4
Sn1899_A		40.69	ug/L	0.3495	0.8589	20.67
Sr4215_R		137.6	ug/L	3.388	2.463	9,903
Ti3349_A		86.96	ug/L	0.2956	0.3400	2,373
Tl1908_A		-1.273	ug/L	0.3592	28.23	-1.791
V_2924_A		12.25	ug/L	0.2080	1.698	137.2
Zn2062_A		64.31	ug/L	0.1383	0.2151	195.5
Y_3600_R		18,164	Cts/S	43.073	0.23714	18,164
Y_2243_A		8,146.7	Cts/S	33.590	0.41231	8,146.7
Y_3600_A		144,710	Cts/S	293.39	0.20275	144,710

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:33:20PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		503.7	ug/L	3.096	0.6146	10,520
Al3961_R		12,680	ug/L	158.9	1.253	13,420
As1891_A		519.5	ug/L	1.883	0.3624	199.9
B_2089_A		508.1	ug/L	0.6410	0.1262	768.8
Ba4554_R		501.3	ug/L	8.705	1.737	32,980
Be3130_R		480.9	ug/L	8.455	1.758	45,780
Ca3158_R		12,810	ug/L	169.9	1.326	16,700
Cd2265_A		496.3	ug/L	0.9397	0.1893	6,471
Co2286_A		525.6	ug/L	1.511	0.2875	2,052
Cr2677_A		499.7	ug/L	1.722	0.3447	5,732
Cu3273_A		486.7	ug/L	2.477	0.5089	5,741
Fe2599_R		12,560	ug/L	191.3	1.523	25,550
K_7664_R		12,560	ug/L	138.7	1.105	7,485
Li6707_R		515.7	ug/L	9.602	1.862	5,746
Mg2025_A	W	13,330	ug/L	72.91	0.5470	4,461
Mn2576_R		510.9	ug/L	6.355	1.244	5,679
Mo2020_A		516.1	ug/L	2.136	0.4139	1,670
Na5895_R		12,370	ug/L	167.3	1.352	24,530
Ni2316_A		507.7	ug/L	1.150	0.2265	1,031
Pb2203_A		507.0	ug/L	1.090	0.2150	504.5
Sb2068_A	W	534.9	ug/L	2.087	0.3902	289.5
Se1960_A		523.8	ug/L	0.8828	0.1685	157.7
Si2516_R		13,370	ug/L	177.2	1.326	6,663
Sn1899_A	W	543.3	ug/L	0.9180	0.1690	271.1
Sr4215_R		494.9	ug/L	9.039	1.826	36,080
Ti3349_A		502.3	ug/L	1.440	0.2866	13,710
Tl1908_A	W	537.0	ug/L	1.701	0.3168	311.8
V_2924_A		508.8	ug/L	3.535	0.6947	5,726
Zn2062_A		496.2	ug/L	0.02366	0.004769	1,526
Y_3600_R		18,203	Cts/S	13.150	0.072242	18,203
Y_2243_A		8,250.5	Cts/S	38.389	0.46530	8,250.5
Y_3600_A		144,100	Cts/S	526.51	0.36538	144,100

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:37:28PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:37:28PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.7563	ug/L	0.3294	43.56	-1.910
Al3961_R		14.19	ug/L	2.885	20.34	8.724
As1891_A		-0.9779	ug/L	0.5006	51.19	-1.900
B_2089_A		0.9218	ug/L	0.3053	33.11	5.801
Ba4554_R		0.2688	ug/L	0.08019	29.83	30.49
Be3130_R		0.3167	ug/L	0.01013	3.197	27.98
Ca3158_R		9.665	ug/L	0.6017	6.226	-8.210
Cd2265_A		0.2202	ug/L	0.08042	36.53	2.453
Co2286_A		0.1521	ug/L	0.1722	113.2	3.724
Cr2677_A		0.5159	ug/L	0.03983	7.720	5.847
Cu3273_A		0.9636	ug/L	0.3118	32.36	-21.94
Fe2599_R		10.70	ug/L	0.5073	4.743	27.06
K_7664_R		45.59	ug/L	41.15	90.25	-68.58
Li6707_R		0.3052	ug/L	0.7453	244.2	3.691
Mg2025_A		5.637	ug/L	0.6397	11.35	-5.812
Mn2576_R		0.2653	ug/L	0.2169	81.77	4.202
Mo2020_A		0.8600	ug/L	0.03824	4.447	2.395
Na5895_R		6.101	ug/L	3.700	60.64	40.89
Ni2316_A		0.4470	ug/L	0.1161	25.98	1.522
Pb2203_A		0.2234	ug/L	0.8896	398.2	-1.012
Sb2068_A		-0.3403	ug/L	0.6216	182.7	0.6047
Se1960_A		0.9286	ug/L	0.2437	26.25	2.646
Si2516_R		20.18	ug/L	10.67	52.88	34.68
Sn1899_A		-0.07519	ug/L	0.4017	534.2	0.6484
Sr4215_R		0.2072	ug/L	0.07611	36.73	-130.7
Ti3349_A		1.137	ug/L	0.1509	13.27	20.70
Tl1908_A		-0.3761	ug/L	0.07980	21.22	-1.185
V_2924_A		0.3904	ug/L	0.1413	36.19	2.765
Zn2062_A		0.2876	ug/L	0.03537	12.30	0.9946
Y_3600_R		18,253	Cts/S	11.796	0.064628	18,253
Y_2243_A		8,332.2	Cts/S	29.082	0.34903	8,332.2
Y_3600_A		146,660	Cts/S	599.61	0.40884	146,660

SO8892-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:41:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.010	ug/L	0.5167	51.13	-7.312
Al3961_R		-185.6	ug/L	28.69	15.46	35.89
As1891_A		-1.167	ug/L	0.01071	0.9184	-1.608
B_2089_A		56.29	ug/L	0.4075	0.7240	42.59
Ba4554_R		200.3	ug/L	0.3817	0.1906	6,520
Be3130_R		0.2271	ug/L	0.06669	29.36	8.431
Ca3158_R	W	313,800	ug/L	2,044	0.6513	202,300
Cd2265_A		-0.01124	ug/L	0.09551	850.1	-0.01785
Co2286_A		18.46	ug/L	0.4825	2.614	36.16
Cr2677_A		3.036	ug/L	0.05269	1.736	21.03
Cu3273_A		4.935	ug/L	0.1507	3.054	-3.344
Fe2599_R		482.7	ug/L	0.4520	0.09363	490.2
K_7664_R		9,520	ug/L	75.15	0.7894	2,744
Li6707_R		96.55	ug/L	2.792	2.892	531.7
Mg2025_A		33,170	ug/L	64.87	0.1956	5,115
Mn2576_R	W	10,070	ug/L	83.43	0.8283	55,320
Mo2020_A		9.806	ug/L	0.01673	0.1706	14.02
Na5895_R	W	260,800	ug/L	8,032	3.079	255,200
Ni2316_A		29.04	ug/L	0.4900	1.687	27.75

SO8892-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:41:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.602	ug/L	0.4307	26.88	-0.3855
Sb2068_A		-3.031	ug/L	0.4264	14.07	-0.03999
Se1960_A		1.568	ug/L	1.819	116.0	3.126
Si2516_R		12,940	ug/L	146.1	1.129	3,195
Sn1899_A		1.372	ug/L	1.251	91.20	0.9459
Sr4215_R		1,111	ug/L	4.235	0.3812	40,040
Ti3349_A		0.6122	ug/L	0.003171	0.5180	-2.146
Tl1908_A		-2.269	ug/L	0.7676	33.83	-4.290
V_2924_A		-1.605	ug/L	0.05463	3.403	-29.44
Zn2062_A		1.473	ug/L	0.2518	17.10	2.189
Y_3600_R		17,983	Cts/S	5.6892	0.031637	17,983
Y_2243_A		7,646.2	Cts/S	33.217	0.43443	7,646.2
Y_3600_A		137,470	Cts/S	397.19	0.28892	137,470

SO8892-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:46:20PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3400	ug/L	0.2495	73.38	-14.17
Al3961_R		-166.2	ug/L	16.77	10.09	37.99
As1891_A		-0.1168	ug/L	0.6417	549.5	-1.447
B_2089_A		52.40	ug/L	0.3723	0.7105	40.72
Ba4554_R		186.4	ug/L	8.268	4.436	6,120
Be3130_R		0.1831	ug/L	0.02206	12.05	6.427
Ca3158_R	W	294,900	ug/L	11,220	3.805	191,800
Cd2265_A		0.1095	ug/L	0.03610	32.98	0.6737
Co2286_A		17.31	ug/L	0.1968	1.137	34.77
Cr2677_A		3.043	ug/L	0.07669	2.520	21.11
Cu3273_A		5.431	ug/L	0.7100	13.07	-0.5361
Fe2599_R		435.8	ug/L	16.70	3.833	447.0
K_7664_R		8,884	ug/L	290.3	3.267	2,577
Li6707_R		91.41	ug/L	2.665	2.916	507.9
Mg2025_A		30,940	ug/L	29.30	0.09472	4,867
Mn2576_R	W	9,459	ug/L	406.3	4.296	52,410
Mo2020_A		8.486	ug/L	0.1742	2.053	12.30
Na5895_R	W	248,300	ug/L	10,380	4.181	245,100
Ni2316_A		27.31	ug/L	0.6995	2.562	26.65
Pb2203_A		2.740	ug/L	0.4799	17.51	0.1444
Sb2068_A		-3.631	ug/L	0.9893	27.25	-0.1964
Se1960_A		1.309	ug/L	3.433	262.2	3.107
Si2516_R		12,040	ug/L	546.0	4.535	3,002
Sn1899_A		1.901	ug/L	1.795	94.42	1.091
Sr4215_R		1,041	ug/L	43.44	4.173	37,830
Ti3349_A		0.8574	ug/L	0.08543	9.964	1.061
Tl1908_A		-4.812	ug/L	0.2679	5.567	-4.901
V_2924_A		-1.523	ug/L	0.5317	34.92	-28.22
Zn2062_A		1.666	ug/L	0.1533	9.202	2.515
Y_3600_R		18,151	Cts/S	473.89	2.6108	18,151
Y_2243_A		7,800.6	Cts/S	23.308	0.29880	7,800.6
Y_3600_A		139,620	Cts/S	2,570.1	1.8407	139,620

SO8914-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:50:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8914-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:50:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.6742	ug/L	0.1012	15.01	-64.47
Al3961_R		19.17	ug/L	10.47	54.61	44.55
As1891_A		245.7	ug/L	1.281	0.5214	90.76
B_2089_A		79.34	ug/L	0.2459	0.3099	118.3
Ba4554_R		25.17	ug/L	0.2013	0.7999	1,667
Be3130_R		0.04253	ug/L	0.02060	48.43	1.846
Ca3158_R	W	34,110	ug/L	303.4	0.8894	44,460
Cd2265_A		-0.4250	ug/L	0.04229	9.950	49.33
Co2286_A		10.91	ug/L	0.04103	0.3761	44.87
Cr2677_A		0.4113	ug/L	0.02759	6.708	8.547
Cu3273_A		-1.532	ug/L	0.09262	6.044	-30.61
Fe2599_R	W	25,790	ug/L	214.6	0.8321	52,440
K_7664_R		6,488	ug/L	62.28	0.9600	3,818
Li6707_R		3.439	ug/L	1.097	31.89	38.66
Mg2025_A		5,508	ug/L	11.80	0.2143	1,784
Mn2576_R	W	1,364	ug/L	11.88	0.8712	15,140
Mo2020_A		1.454	ug/L	0.06671	4.589	4.101
Na5895_R		16,830	ug/L	203.0	1.206	33,340
Ni2316_A		4.030	ug/L	0.4792	11.89	6.531
Pb2203_A		1.665	ug/L	0.4625	27.78	0.6791
Sb2068_A		-0.3461	ug/L	0.8615	248.9	1.149
Se1960_A		-1.736	ug/L	0.1093	6.296	2.400
Si2516_R		11,910	ug/L	86.50	0.7265	5,928
Sn1899_A		0.5358	ug/L	0.2175	40.59	0.9234
Sr4215_R		330.8	ug/L	4.729	1.430	24,050
Ti3349_A		-0.2901	ug/L	0.05497	18.95	-18.34
Tl1908_A		-0.5186	ug/L	0.2870	55.33	-2.028
V_2924_A		-0.04304	ug/L	0.1653	384.2	-8.214
Zn2062_A		40.60	ug/L	0.2034	0.5010	122.0
Y_3600_R		18,192	Cts/S	222.84	1.2249	18,192
Y_2243_A		8,049.4	Cts/S	10.953	0.13607	8,049.4
Y_3600_A		142,120	Cts/S	1,379.7	0.97085	142,120

SO8914-010L

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:55:09PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.7926	ug/L	0.9006	113.6	-27.36
Al3961_R		17.24	ug/L	14.37	83.34	3.470
As1891_A		233.9	ug/L	7.223	3.088	16.70
B_2089_A		76.02	ug/L	1.521	2.001	27.09
Ba4554_R		24.66	ug/L	0.4774	1.936	340.0
Be3130_R		0.1724	ug/L	0.05815	33.73	1.081
Ca3158_R		34,150	ug/L	304.4	0.8914	8,970
Cd2265_A		-0.4552	ug/L	0.2866	62.95	9.800
Co2286_A		9.941	ug/L	0.4691	4.718	11.05
Cr2677_A		1.515	ug/L	0.2207	14.57	4.222
Cu3273_A		2.249	ug/L	0.3293	14.64	-24.12
Fe2599_R		25,810	ug/L	268.7	1.041	10,600
K_7664_R		6,374	ug/L	102.1	1.602	679.4
Li6707_R		13.47	ug/L	6.448	47.85	30.55
Mg2025_A		5,451	ug/L	44.08	0.8086	360.3
Mn2576_R		1,362	ug/L	10.42	0.7651	3,054
Mo2020_A		2.011	ug/L	0.07222	3.591	0.8824
Na5895_R		16,610	ug/L	145.8	0.8779	6,665
Ni2316_A		3.790	ug/L	0.08669	2.288	1.739

SO8914-010L

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:55:09PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.617	ug/L	1.989	76.03	-0.6600
Sb2068_A		-5.769	ug/L	1.000	17.34	0.2794
Se1960_A		3.470	ug/L	5.009	144.4	2.709
Si2516_R		11,590	ug/L	38.89	0.3354	1,185
Sn1899_A		-2.921	ug/L	3.484	119.3	0.3948
Sr4215_R		327.3	ug/L	2.313	0.7067	4,687
Ti3349_A		-0.6130	ug/L	1.473	240.4	-14.26
Tl1908_A		-1.707	ug/L	2.003	117.4	-1.333
V_2924_A		-1.160	ug/L	0.2941	25.34	-5.669
Zn2062_A		41.35	ug/L	0.3050	0.7376	25.88
Y_3600_R		18,360	Cts/S	66.863	0.36419	18,360
Y_2243_A		8,354.2	Cts/S	44.931	0.53782	8,354.2
Y_3600_A		147,260	Cts/S	3,105.9	2.1092	147,260

SO8914-010A

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 3:59:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		487.0	ug/L	0.2173	0.04462	9,831
Al3961_R		10,870	ug/L	161.2	1.483	11,440
As1891_A		746.2	ug/L	1.466	0.1965	278.4
B_2089_A		579.4	ug/L	2.549	0.4400	846.9
Ba4554_R		527.6	ug/L	5.692	1.079	34,450
Be3130_R		484.5	ug/L	4.138	0.8541	45,780
Ca3158_R	W	39,110	ug/L	667.8	1.707	50,640
Cd2265_A		489.4	ug/L	1.388	0.2836	6,221
Co2286_A		534.1	ug/L	2.478	0.4640	2,020
Cr2677_A		496.0	ug/L	2.322	0.4682	5,530
Cu3273_A		497.3	ug/L	0.1712	0.03442	5,714
Fe2599_R	W	31,030	ug/L	349.3	1.126	62,650
K_7664_R		16,510	ug/L	276.4	1.674	9,798
Li6707_R		531.1	ug/L	4.891	0.9211	5,874
Mg2025_A		11,210	ug/L	23.73	0.2116	3,640
Mn2576_R	W	1,839	ug/L	27.23	1.481	20,290
Mo2020_A		528.3	ug/L	2.136	0.4043	1,656
Na5895_R		22,070	ug/L	311.8	1.413	43,400
Ni2316_A		508.1	ug/L	1.177	0.2317	998.9
Pb2203_A		500.0	ug/L	1.399	0.2799	482.4
Sb2068_A		534.7	ug/L	4.207	0.7868	280.8
Se1960_A		522.1	ug/L	4.718	0.9036	152.8
Si2516_R		11,940	ug/L	237.7	1.991	5,906
Sn1899_A		544.4	ug/L	1.820	0.3343	263.2
Sr4215_R		829.9	ug/L	6.777	0.8166	60,150
Ti3349_A		512.8	ug/L	1.863	0.3634	13,600
Tl1908_A		529.8	ug/L	1.936	0.3654	297.3
V_2924_A		524.4	ug/L	1.186	0.2262	5,727
Zn2062_A		527.4	ug/L	0.9490	0.1799	1,571
Y_3600_R		18,068	Cts/S	151.88	0.84063	18,068
Y_2243_A		7,993.6	Cts/S	21.507	0.26905	7,993.6
Y_3600_A		139,970	Cts/S	72.281	0.051638	139,970

SO8914-010P

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 4:03:41PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8914-010P

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 4:03:41PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		103.2	ug/L	0.01802	0.01746	2,031
Al3961_R		4,255	ug/L	2.078	0.04884	4,483
As1891_A		354.2	ug/L	0.9889	0.2792	131.6
B_2089_A		597.9	ug/L	0.3098	0.05181	865.3
Ba4554_R	W	4,133	ug/L	23.16	0.5604	269,300
Be3130_R		100.7	ug/L	0.02544	0.02527	9,526
Ca3158_R	W	37,280	ug/L	71.89	0.1928	48,180
Cd2265_A		251.9	ug/L	0.3440	0.1366	3,246
Co2286_A	W	1,097	ug/L	1.599	0.1457	4,166
Cr2677_A		407.5	ug/L	1.720	0.4220	4,586
Cu3273_A		513.1	ug/L	2.386	0.4650	5,950
Fe2599_R	W	28,420	ug/L	59.54	0.2095	57,270
K_7664_R		16,960	ug/L	33.43	0.1971	10,050
Li6707_R		547.7	ug/L	1.468	0.2681	6,046
Mg2025_A		10,850	ug/L	26.43	0.2437	3,566
Mn2576_R	W	2,436	ug/L	2.222	0.09123	26,820
Mo2020_A		110.0	ug/L	0.5601	0.5093	345.9
Na5895_R		24,780	ug/L	76.89	0.3103	48,640
Ni2316_A	W	1,052	ug/L	0.7189	0.06837	2,067
Pb2203_A		103.9	ug/L	0.1253	0.1206	99.98
Sb2068_A		112.7	ug/L	1.132	1.005	58.31
Se1960_A		110.4	ug/L	0.04346	0.03937	34.94
Si2516_R		13,220	ug/L	42.39	0.3206	6,525
Sn1899_A		561.7	ug/L	0.1444	0.02571	273.1
Sr4215_R		855.8	ug/L	1.911	0.2232	61,920
Ti3349_A		524.5	ug/L	2.354	0.4487	14,020
Tl1908_A		107.6	ug/L	0.5070	0.4713	60.93
V_2924_A	W	1,075	ug/L	1.387	0.1290	11,930
Zn2062_A	W	1,049	ug/L	1.677	0.1599	3,145
Y_3600_R		18,031	Cts/S	217.87	1.2083	18,031
Y_2243_A		8,037.8	Cts/S	9.3080	0.11580	8,037.8
Y_3600_A		141,230	Cts/S	180.46	0.12778	141,230

SO8914-010S

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 4:07:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		103.9	ug/L	0.3711	0.3570	2,021
Al3961_R		4,155	ug/L	131.7	3.170	4,123
As1891_A		358.2	ug/L	3.595	1.004	131.5
B_2089_A		608.0	ug/L	5.966	0.9812	868.5
Ba4554_R	W	4,097	ug/L	112.0	2.733	251,400
Be3130_R		98.63	ug/L	2.511	2.546	8,788
Ca3158_R	W	36,800	ug/L	610.9	1.660	44,760
Cd2265_A		253.6	ug/L	2.371	0.9353	3,224
Co2286_A	W	1,098	ug/L	10.45	0.9516	4,115
Cr2677_A		407.1	ug/L	1.371	0.3368	4,524
Cu3273_A		520.2	ug/L	0.3931	0.07557	5,958
Fe2599_R	W	28,060	ug/L	478.5	1.705	53,220
K_7664_R		16,680	ug/L	445.2	2.669	9,305
Li6707_R		535.9	ug/L	18.00	3.360	5,571
Mg2025_A		10,910	ug/L	132.2	1.211	3,540
Mn2576_R	W	2,394	ug/L	58.59	2.448	24,820
Mo2020_A		109.8	ug/L	0.9156	0.8337	341.0
Na5895_R		24,670	ug/L	592.5	2.402	45,580
Ni2316_A	W	1,056	ug/L	9.392	0.8891	2,050

SO8914-010S

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 4:07:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		104.3	ug/L	0.8125	0.7791	99.08
Sb2068_A		111.8	ug/L	1.601	1.432	57.10
Se1960_A		109.7	ug/L	1.910	1.741	34.29
Si2516_R		14,160	ug/L	1,118	7.901	6,545
Sn1899_A		559.6	ug/L	5.745	1.027	268.6
Sr4215_R		837.9	ug/L	28.23	3.369	57,090
Ti3349_A		524.2	ug/L	1.182	0.2255	13,840
Tl1908_A		107.3	ug/L	0.8135	0.7580	60.04
V_2924_A	W	1,066	ug/L	3.018	0.2830	11,690
Zn2062_A	W	1,065	ug/L	7.135	0.6697	3,153
Y_3600_R		16,958	Cts/S	1,535.8	9.0562	16,958
Y_2243_A		7,935.0	Cts/S	74.580	0.93989	7,935.0
Y_3600_A		139,490	Cts/S	50.276	0.036042	139,490

SO8914-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 4:12:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.01105	ug/L	0.04632	419.3	-17.40
Al3961_R		-13.06	ug/L	4.613	35.33	19.88
As1891_A		0.2699	ug/L	0.9737	360.8	-1.353
B_2089_A		242.2	ug/L	0.4836	0.1996	350.1
Ba4554_R		78.70	ug/L	1.370	1.741	5,178
Be3130_R		0.04301	ug/L	0.01758	40.88	1.888
Ca3158_R	W	44,630	ug/L	756.4	1.695	58,110
Cd2265_A		0.1280	ug/L	0.04473	34.94	1.206
Co2286_A		0.8742	ug/L	0.1167	13.35	6.294
Cr2677_A		0.7236	ug/L	0.05237	7.237	8.478
Cu3273_A		3.938	ug/L	0.2540	6.449	13.29
Fe2599_R		16.96	ug/L	1.206	7.108	39.65
K_7664_R		12,400	ug/L	225.0	1.815	7,374
Li6707_R		0.5889	ug/L	0.2162	36.71	6.832
Mg2025_A		7,464	ug/L	19.58	0.2623	2,404
Mn2576_R		665.9	ug/L	9.521	1.430	7,393
Mo2020_A		2.220	ug/L	0.07410	3.338	6.524
Na5895_R		19,730	ug/L	396.7	2.010	39,030
Ni2316_A		1.348	ug/L	0.06118	4.540	3.241
Pb2203_A		0.9000	ug/L	0.1958	21.75	-0.3154
Sb2068_A		1.319	ug/L	0.6605	50.09	1.451
Se1960_A		2.993	ug/L	0.05892	1.969	3.235
Si2516_R		5,119	ug/L	95.91	1.873	2,560
Sn1899_A		0.6001	ug/L	0.7542	125.7	0.9496
Sr4215_R		423.6	ug/L	6.062	1.431	30,800
Ti3349_A		0.5458	ug/L	0.07379	13.52	4.108
Tl1908_A		-0.4284	ug/L	0.1526	35.62	-1.554
V_2924_A		0.6043	ug/L	0.1296	21.45	2.359
Zn2062_A		0.7839	ug/L	0.1330	16.97	2.436
Y_3600_R		18,168	Cts/S	1.0526	0.0057940	18,168
Y_2243_A		7,999.7	Cts/S	30.363	0.37955	7,999.7
Y_3600_A		139,510	Cts/S	520.32	0.37296	139,510

SO8914-012

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 4:16:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8914-012

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 4:16:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.04955	ug/L	0.2903	585.8	-18.54
Al3961_R		-21.60	ug/L	7.813	36.17	10.80
As1891_A		0.07659	ug/L	0.01328	17.34	-1.423
B_2089_A		241.8	ug/L	0.04323	0.01788	348.7
Ba4554_R		78.68	ug/L	1.961	2.492	5,213
Be3130_R		0.04243	ug/L	0.03869	91.19	1.909
Ca3158_R	W	44,430	ug/L	897.1	2.019	58,250
Cd2265_A		0.06605	ug/L	0.02984	45.17	0.3977
Co2286_A		0.7124	ug/L	0.04272	5.997	5.668
Cr2677_A		0.6608	ug/L	0.004586	0.6941	7.930
Cu3273_A		4.969	ug/L	0.02280	0.4588	25.61
Fe2599_R		5.270	ug/L	1.352	25.65	16.02
K_7664_R		12,410	ug/L	229.4	1.848	7,434
Li6707_R		1.239	ug/L	0.7891	63.69	14.13
Mg2025_A		7,480	ug/L	10.22	0.1366	2,404
Mn2576_R		666.8	ug/L	16.27	2.441	7,455
Mo2020_A		2.073	ug/L	0.07310	3.527	6.050
Na5895_R		19,620	ug/L	416.3	2.122	39,080
Ni2316_A		1.359	ug/L	0.2336	17.19	3.256
Pb2203_A		1.136	ug/L	0.03242	2.855	-0.08537
Sb2068_A		1.259	ug/L	0.4265	33.88	1.414
Se1960_A		2.276	ug/L	0.5080	22.32	3.022
Si2516_R		5,118	ug/L	112.1	2.190	2,578
Sn1899_A		0.8345	ug/L	0.4746	56.87	1.059
Sr4215_R		423.5	ug/L	9.101	2.149	31,010
Ti3349_A		-0.06763	ug/L	0.1395	206.3	-12.37
Tl1908_A		-0.7811	ug/L	0.1744	22.32	-1.749
V_2924_A		0.7306	ug/L	0.2152	29.46	3.835
Zn2062_A		1.305	ug/L	0.04179	3.202	3.982
Y_3600_R		18,297	Cts/S	140.83	0.76971	18,297
Y_2243_A		7,982.6	Cts/S	16.901	0.21173	7,982.6
Y_3600_A		142,200	Cts/S	1,868.0	1.3137	142,200

SO8914-014

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 4:20:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1788	ug/L	0.3831	214.2	-14.06
Al3961_R		19.38	ug/L	9.596	49.50	14.36
As1891_A		-2.225	ug/L	1.055	47.43	-2.356
B_2089_A		12.11	ug/L	0.1499	1.237	22.11
Ba4554_R		22.08	ug/L	0.2852	1.292	1,481
Be3130_R		0.06403	ug/L	0.03049	47.62	3.876
Ca3158_R		56.60	ug/L	0.3423	0.6047	53.63
Cd2265_A		0.02033	ug/L	0.02397	117.9	-0.1810
Co2286_A		-0.2143	ug/L	0.1051	49.03	2.252
Cr2677_A		0.7750	ug/L	0.7088	91.45	8.757
Cu3273_A		0.9342	ug/L	0.2785	29.81	-22.12
Fe2599_R		4.258	ug/L	0.8368	19.65	14.03
K_7664_R		64.63	ug/L	29.56	45.74	-57.53
Li6707_R		0.6693	ug/L	0.4345	64.93	7.821
Mg2025_A		3.850	ug/L	1.781	46.25	-6.338
Mn2576_R		0.2625	ug/L	0.003379	1.287	4.205
Mo2020_A		0.1969	ug/L	0.03668	18.63	0.2235
Na5895_R		58.75	ug/L	3.135	5.337	146.6
Ni2316_A		0.5279	ug/L	0.1034	19.59	1.654

SO8914-014

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 4:20:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.4845	ug/L	0.7879	162.6	-0.7394
Sb2068_A		-0.3482	ug/L	0.4242	121.8	0.5888
Se1960_A		0.8151	ug/L	1.122	137.7	2.576
Si2516_R		56.67	ug/L	10.82	19.09	53.26
Sn1899_A		0.5403	ug/L	0.2210	40.90	0.9448
Sr4215_R		0.7298	ug/L	0.02150	2.946	-93.12
Ti3349_A		1.276	ug/L	0.6670	52.29	24.26
Tl1908_A		-1.076	ug/L	0.2329	21.64	-1.574
V_2924_A		0.4187	ug/L	0.6589	157.4	3.062
Zn2062_A		12.47	ug/L	0.2820	2.262	38.31
Y_3600_R		18,398	Cts/S	18.055	0.098138	18,398
Y_2243_A		8,215.1	Cts/S	0.057252	0.00069700	8,215.1
Y_3600_A		145,450	Cts/S	1,378.5	0.94771	145,450

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 4:25:23PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		507.4	ug/L	8.915	1.757	10,560
Al3961_R		12,480	ug/L	114.8	0.9199	13,340
As1891_A		525.9	ug/L	2.265	0.4307	199.3
B_2089_A		510.7	ug/L	0.4765	0.09329	761.1
Ba4554_R		487.1	ug/L	6.159	1.264	32,380
Be3130_R	W	461.3	ug/L	6.862	1.487	44,380
Ca3158_R		12,550	ug/L	61.08	0.4866	16,530
Cd2265_A		495.4	ug/L	1.291	0.2606	6,360
Co2286_A	W	532.2	ug/L	2.142	0.4025	2,046
Cr2677_A		498.9	ug/L	10.55	2.115	5,703
Cu3273_A		487.1	ug/L	7.549	1.550	5,725
Fe2599_R		12,250	ug/L	143.8	1.174	25,180
K_7664_R		12,330	ug/L	149.5	1.212	7,427
Li6707_R		506.8	ug/L	4.320	0.8524	5,706
Mg2025_A	W	13,520	ug/L	62.27	0.4606	4,456
Mn2576_R		505.2	ug/L	5.204	1.030	5,674
Mo2020_A		521.9	ug/L	1.720	0.3296	1,663
Na5895_R		12,060	ug/L	123.4	1.024	24,150
Ni2316_A		508.7	ug/L	1.698	0.3338	1,018
Pb2203_A		503.5	ug/L	2.158	0.4285	493.4
Sb2068_A	W	546.6	ug/L	3.779	0.6915	291.3
Se1960_A	W	529.9	ug/L	0.6620	0.1249	157.1
Si2516_R		13,380	ug/L	133.1	0.9947	6,739
Sn1899_A	F	554.3	ug/L	4.421	0.7977	272.4
Sr4215_R		477.8	ug/L	6.814	1.426	35,200
Ti3349_A		510.4	ug/L	5.668	1.111	13,880
Tl1908_A	W	545.6	ug/L	2.571	0.4712	312.0
V_2924_A		523.0	ug/L	6.662	1.274	5,866
Zn2062_A		494.0	ug/L	1.967	0.3982	1,496
Y_3600_R		18,392	Cts/S	67.849	0.36891	18,392
Y_2243_A		8,125.0	Cts/S	23.114	0.28449	8,125.0
Y_3600_A		143,600	Cts/S	1,764.7	1.2289	143,600

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 4:29:32PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 4:29:32PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2573	ug/L	0.2972	115.5	-12.60
Al3961_R		10.64	ug/L	1.551	14.57	5.040
As1891_A		-0.1884	ug/L	0.4085	216.9	-1.584
B_2089_A		0.9614	ug/L	0.6978	72.58	5.838
Ba4554_R		0.2517	ug/L	0.1593	63.31	29.79
Be3130_R		0.1950	ug/L	0.03626	18.60	16.61
Ca3158_R		8.715	ug/L	0.04469	0.5128	-9.618
Cd2265_A		0.2079	ug/L	0.09606	46.21	2.278
Co2286_A		0.02038	ug/L	0.1186	581.9	3.194
Cr2677_A		0.5236	ug/L	0.09823	18.76	5.975
Cu3273_A		0.8604	ug/L	0.1282	14.90	-23.32
Fe2599_R		8.483	ug/L	0.5055	5.959	22.93
K_7664_R		15.93	ug/L	10.93	68.58	-88.11
Li6707_R		0.2520	ug/L	1.087	431.3	3.257
Mg2025_A		3.708	ug/L	0.7703	20.78	-6.446
Mn2576_R		0.2557	ug/L	0.1260	49.27	4.178
Mo2020_A		0.8247	ug/L	0.1714	20.79	2.271
Na5895_R		7.055	ug/L	3.887	55.09	43.46
Ni2316_A		0.3668	ug/L	0.01150	3.134	1.353
Pb2203_A		0.4205	ug/L	0.4695	111.7	-0.8115
Sb2068_A		0.2014	ug/L	0.2310	114.7	0.8966
Se1960_A		1.031	ug/L	0.8651	83.89	2.668
Si2516_R		12.72	ug/L	4.440	34.92	31.52
Sn1899_A		0.2104	ug/L	0.4929	234.3	0.7897
Sr4215_R		-0.05192	ug/L	0.1506	290.0	-152.3
Ti3349_A		1.066	ug/L	0.4591	43.08	18.80
Tl1908_A		0.7805	ug/L	0.4628	59.30	-0.5045
V_2924_A		0.3384	ug/L	0.07641	22.58	2.178
Zn2062_A		0.3251	ug/L	0.02627	8.079	1.107
Y_3600_R		18,570	Cts/S	310.66	1.6729	18,570
Y_2243_A		8,303.8	Cts/S	2.6798	0.032273	8,303.8
Y_3600_A		147,540	Cts/S	1,055.5	0.71541	147,540

SO8921-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,077
Analyst Name: EP
Acquire Date: 1/6/2022 4:33:56PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3680	ug/L	0.09957	27.05	-12.14
Al3961_R		-187.5	ug/L	3.689	1.968	69.15
As1891_A		-1.315	ug/L	0.1987	15.11	-1.865
B_2089_A		26.63	ug/L	0.06692	0.2513	39.82
Ba4554_R		78.02	ug/L	0.3743	0.4797	5,031
Be3130_R		0.06937	ug/L	0.09645	139.0	4.209
Ca3158_R	W	306,700	ug/L	6,219	2.028	391,500
Cd2265_A		-0.04722	ug/L	0.05497	116.4	1.110
Co2286_A		5.964	ug/L	0.3455	5.792	24.04
Cr2677_A		1.754	ug/L	0.03003	1.712	22.03
Cu3273_A		68.62	ug/L	0.1006	0.1466	728.2
Fe2599_R		1,269	ug/L	1.438	0.1133	2,530
K_7664_R		9,530	ug/L	70.66	0.7415	5,533
Li6707_R		48.32	ug/L	0.7288	1.508	526.8
Mg2025_A	W	30,830	ug/L	30.38	0.09852	9,307
Mn2576_R	W	3,755	ug/L	10.87	0.2895	40,840
Mo2020_A		11.87	ug/L	0.009469	0.07979	34.22
Na5895_R	F	240,400	ug/L	2,105	0.8757	465,500
Ni2316_A		332.2	ug/L	457.8	137.8	608.4

Logbooks and Supporting Documents

Katahdin Analytical Services, Inc.

Reagents and Consumables Information:

Metals Preparation Benchsheet

Method: 3010

HNO3: MSR368 **HCL:** MSR369 **Digestion Vessels:** MLB036000010130

1:1 HNO3: MR3336 **1:1 HCL:** MR3337

Pipet **LCS/Spiking Information:**

M11 **CLPP-SPK-1 (ID/Vol):** MS3369 / 0.05 mL

M21 **CLPP-SPK-INT1 (ID/Vol):** MW30719 / 0.5 mL

M21 **CLPP-SPK-INT2 (ID/Vol):** MW30678 / 0.5 mL

– – **Spike (ID/Vol):** – / – mL

Heat Source ID : A

Start Time: 0800 **/Temp.** 90 °C

End Time: 1436 **/Temp.** 90 °C

Thermometer ID/Pos: AU30 / 4.5

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH<2
LCSWPA04ICW1	PA04ICW1	0.05	L	0.05	L	AQ	IC	JT	01/04/2022	–	✓
PBWPA04ICW1	PA04ICW1		L		L	AQ	IC	JT	01/04/2022	–	
SO8892-001	PA04ICW1		L		L	AQ	IC	JT	01/04/2022	C	
SO8892-002	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		
SO8892-003	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		
SO8892-004	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		
SO8892-005	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		
SO8894-001	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		
SO8894-002	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		
SO8914-001	PA04ICW1		L		L	AQ	IC	JT	01/04/2022	E	
SO8914-001P	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		
SO8914-001S	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		
SO8914-002	PA04ICW1		L		L	AQ	IC	JT	01/04/2022	A	
SO8914-002P	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		
SO8914-002S	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		
SO8914-003	PA04ICW1		L		L	AQ	IC	JT	01/04/2022	C	
SO8914-004	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		
SO8914-005	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		
SO8914-006	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		
SO8914-007	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		
SO8914-008	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		
SO8914-009	PA04ICW1		L		L	AQ	IC	JT	01/04/2022		

REVIEWED

CD 1-6-22

KATAHDIN ANALYTICAL METALS SECTION

Client IDs Verified

JT 1/4/22

QA-064-Revision 5 -12/07/2018 **Digestion performed by:** JT/CB **On:** 1/4/22 **Page:** PA009 **Revision:** 00

Katahdin Analytical Services, Inc.

Metals Preparation Benchsheet

Reagents and Consumables Information:

Method: 3010

HNO3: MSR268 **HCL:** MSR269

Digestion Vessels: JT 1/5/22 ~~17397~~ MLD0260000130

1:1 HNO3: MR3236 **1:1 HCL:** MR3237

Pipet	LCS/Spiking Information:
M11	CLPP-SPK-1 (ID/Vol): / 0.05 mL
M21	CLPP-SPK-INT1 (ID/Vol): / 0.5 mL
M21	CLPP-SPK-INT2 (ID/Vol): / 0.5 mL
–	– Spike (ID/Vol): – / – mL

Heat Source ID : A

Start Time: 7:46 **/Temp.** 90 **°C**

End Time: 1412 **/Temp.** 90 **°C**

Thermometer ID/Pos: ALL30 /

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH<2
LCSWPA05ICW1	PA05ICW1	0.05	L	0.05	L	AQ	IC	JT	01/05/2022	–	✓
PBWPA05ICW1	PA05ICW1		L		L	AQ	IC	JT	01/05/2022	–	
SO8914-010	PA05ICW1		L		L	AQ	IC	JT	01/05/2022	C	
SO8914-010P	PA05ICW1		L		L	AQ	IC	JT	01/05/2022		
SO8914-010S	PA05ICW1		L		L	AQ	IC	JT	01/05/2022		
SO8914-011	PA05ICW1		L		L	AQ	IC	JT	01/05/2022		
SO8914-012	PA05ICW1		L		L	AQ	IC	JT	01/05/2022	A	
SO8914-014	PA05ICW1		L		L	AQ	IC	JT	01/05/2022	C	
SO8921-001	PA05ICW1		L		L	AQ	IC	JT	01/05/2022		
SO8921-002	PA05ICW1		L		L	AQ	IC	JT	01/05/2022		
SO8921-005	PA05ICW1		L		L	AQ	IC	JT	01/05/2022		
SO8943-001	PA05ICW1		L		L	AQ	IC	JT	01/05/2022		
SO8943-002	PA05ICW1		L		L	AQ	IC	JT	01/05/2022		<2
SO8943-003	PA05ICW1		L		L	AQ	IC	JT	01/05/2022		
SO8943-004	PA05ICW1		L		L	AQ	IC	JT	01/05/2022		
SO8943-005	PA05ICW1		L		L	AQ	IC	JT	01/05/2022		
SO8943-006	PA05ICW1		L		L	AQ	IC	JT	01/05/2022		
SO8943-007	PA05ICW1		L		L	AQ	IC	JT	01/05/2022		
SO8943-008	PA05ICW1		L		L	AQ	IC	JT	01/05/2022	A	
SO8944-001	PA05ICW1		L		L	AQ	IC	JT	01/05/2022	A	
SO8945-001	PA05ICW1		L		L	AQ	IC	JT	01/05/2022	C	
SO8946-001	PA05ICW1		L		L	AQ	IC	JT	01/05/2022	D	
SO8946-002	PA05ICW1		L		L	AQ	IC	JT	01/05/2022		

REVIEWED

CD 1-6-22

KATAHDIN ANALYTICAL
METALS SECTION

Client IDs Verified
JT 1/5/22

QA-064-Revision 5 -12/07/2018 **Digestion performed by:** JT/CD **On:** 1/5/22 **Page:** PA015 **Revision:** 00

CONVENTIONAL AND PHYSICAL ANALYTICAL DATA

QC Summary Section

Katahdin
ANALYTICAL SERVICES

Quality Control Report

Blank Sample Summary Report

Alkalinity

QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	Units	LOQ	MDL	LOD
WG312434	SM2320B	04-JAN-22	N/A	J1.8	mg/L	5.0	0.23	4.0
WG312546	SM2320B	06-JAN-22	N/A	J2.7	mg/L	5.0	0.23	4.0

Chloride

QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	Units	LOQ	MDL	LOD
WG312905	SW846 9056A	14-JAN-22	N/A	J0.16	mg/L	2.0	0.099	1.0

Nitrate As N

QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	Units	LOQ	MDL	LOD
WG312264	EPA 353.2	29-DEC-21	N/A	U0.025	mg/L	0.050	0.015	0.025

Solids-Filterable Residue

QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	Units	LOQ	MDL	LOD
WG312427	SM2540C	06-JAN-22	04-JAN-22	U8.0	mg/L	10.	5.0	8.0
WG312585	SM2540C	10-JAN-22	07-JAN-22	U8.0	mg/L	10.	5.0	8.0

Sulfate

QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	Units	LOQ	MDL	LOD
WG312835	SW846 9056A	13-JAN-22	N/A	U1.0	mg/L	1.0	0.064	0.50

Total Biochemical Oxygen Demand

QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	Units	LOQ	MDL	LOD
WG312275	SM5210B	04-JAN-22	30-DEC-21	U1.0	mg/L	2.0	0.23	1.0

Quality Control Report

Laboratory Control Sample Summary Report

Alkalinity

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG312434-2	LCS	WG312434	04-JAN-22	N/A	mg/L	120	140	113	80-120	
WG312546-2	LCS	WG312546	06-JAN-22	N/A	mg/L	120	130	111	80-120	

Chloride

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG312905-2	LCS	WG312905	14-JAN-22	N/A	mg/L	3.75	3.60	96.0	90-110	

Nitrate As N

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG312264-2	LCS	WG312264	29-DEC-21	N/A	mg/L	1	0.99	99	90-110	

Solids-Filterable Residue

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG312427-2	LCS	WG312427	06-JAN-22	04-JAN-22	mg/L	750	680	90	80-120	
WG312585-2	LCS	WG312585	10-JAN-22	07-JAN-22	mg/L	750	680	91	80-120	
WG312585-4	LCSD	WG312585	10-JAN-22	07-JAN-22	mg/L	750	660	88	80-120	3

Sulfate

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG312835-2	LCS	WG312835	13-JAN-22	N/A	mg/L	3.75	3.54	94.4	90-110	

Total Biochemical Oxygen Demand

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG312275-2	LCS	WG312275	04-JAN-22	30-DEC-21	mg/L	198	190	96	85-115	

Quality Control Report

Duplicate Sample Summary Report

Solids-Filterable Residue

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG312585-5	SO8914-5	WG312585	10-JAN-22	mg/L	120	94.	20*	10

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P.O. Box 540, Scarborough, ME 04070
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http://katahdinlab.com
sales@katahdinlab.com

Quality Control Report

Matrix Spike Sample Summary Report

Alkalinity

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG312434-3	MS	SO8914-11	WG312434	04-JAN-22	mg/L	120	178	288	110	75 - 125
WG312546-3	MS	SO8914-1	WG312546	06-JAN-22	mg/L	120	108	218	103	75 - 125
WG312546-4	MSD	SO8914-1	WG312546	06-JAN-22	mg/L	120	108	220	104	75 - 125

Chloride

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG312905-3	MS	SO8914-1	WG312905	14-JAN-22	mg/L	7.5	27.2	33	95.5	90 - 110
WG312905-4	MSD	SO8914-1	WG312905	14-JAN-22	mg/L	7.5	27.2	33.2	97.4	90 - 110

Nitrate As N

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG312264-3	MS	SO8914-1	WG312264	29-DEC-21	mg/L	0.5	U 0.10	.173	35*	90 - 110
WG312264-4	MSD	SO8914-1	WG312264	29-DEC-21	mg/L	0.5	U 0.10	.166	33*	90 - 110

Sulfate

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG312835-3	MS	SO8914-1	WG312835	14-JAN-22	mg/L	3.75	19.4	15.1	0*	90 - 110
WG312835-4	MSD	SO8914-1	WG312835	14-JAN-22	mg/L	3.75	19.4	15.3	0*	90 - 110

Total Biochemical Oxygen Demand

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG312275-3	MS	SO8914-11	WG312275	04-JAN-22	mg/L	47.52	U 2.0	44.9	94	75 - 125

Sample Data Section

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results may not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results may not be reportable for compliance purposes.

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8914-1
Report Date: 24-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8914

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3D-EVENT#4	AQ	28-DEC-21 10:13:00	29-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	110 mg/L	5.0	0.23	4	STDM 2320B	WG312546	06-JAN-22 12:24:11	N/A	N/A	
Chloride	27 mg/L	4.0	0.20	2.0	SW846 9056A	WG312905	14-JAN-22 14:39:00	N/A	N/A	
Nitrate As N	U0.10 mg/L	0.10	0.030	0.050	EPA 353.2	WG312264	29-DEC-21 16:54:10	N/A	N/A	M1
Solids-Filterable Residue	100 mg/L	10.	5.0	8	STDM 2540C	WG312427	06-JAN-22 08:05:00	SM 2540C	04-JAN-22	
Sulfate	19 mg/L	1.0	0.064	0.50	SW846 9056A	WG312835	13-JAN-22 21:25:00	N/A	N/A	M2

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8914-3
Report Date: 24-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8914

Sample Description	Matrix	Date Sampled	Date Received
AS-DUP-EVENT#4	AQ	28-DEC-21 11:00:00	29-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	66. mg/L	5.0	0.23	4	STDM 2320B	WG312434	04-JAN-22 01:16:04	N/A	N/A	
Chloride	31 mg/L	4.0	0.20	2.0	SW846 9056A	WG312905	14-JAN-22 15:42:00	N/A	N/A	
Nitrate As N	U0.050 mg/L	0.050	0.015	0.025	EPA 353.2	WG312264	29-DEC-21 16:52:59	N/A	N/A	
Solids-Filterable Residue	100 mg/L	10.	5.0	8	STDM 2540C	WG312427	06-JAN-22 08:05:00	SM 2540C	04-JAN-22	
Sulfate	12 mg/L	1.0	0.064	0.50	SW846 9056A	WG312835	13-JAN-22 21:46:00	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8914-5
Report Date: 24-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8914

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3S-EVENT#4	AQ	28-DEC-21 12:15:00	29-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	71. mg/L	5.0	0.23	4	STDM 2320B	WG312434	04-JAN-22 01:18:25	N/A	N/A	
Chloride	31 mg/L	4.0	0.20	2.0	SW846 9056A	WG312905	14-JAN-22 16:02:00	N/A	N/A	
Nitrate As N	U0.050 mg/L	0.050	0.015	0.025	EPA 353.2	WG312264	29-DEC-21 16:48:21	N/A	N/A	
Solids-Filterable Residue	120 mg/L	10.	5.0	8	STDM 2540C	WG312585	10-JAN-22 14:12:00	SM 2540C	07-JAN-22	R1
Sulfate	12 mg/L	1.0	0.064	0.50	SW846 9056A	WG312835	13-JAN-22 22:07:00	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8914-7
Report Date: 24-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8914

Sample Description	Matrix	Date Sampled	Date Received
SMH-10-06-EVENT#4	AQ	28-DEC-21 14:05:00	29-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	180 mg/L	5.0	0.23	4	STDM 2320B	WG312434	04-JAN-22 01:20:41	N/A	N/A	
Chloride	32 mg/L	4.0	0.20	2.0	SW846 9056A	WG312905	14-JAN-22 16:23:00	N/A	N/A	
Nitrate As N	U0.10 mg/L	0.10	0.030	0.050	EPA 353.2	WG312264	29-DEC-21 17:02:25	N/A	N/A	
Solids-Filterable Residue	190 mg/L	10.	5.0	8	STDM 2540C	WG312427	06-JAN-22 08:05:00	SM 2540C	04-JAN-22	
Sulfate	7.4 mg/L	1.0	0.064	0.50	SW846 9056A	WG312835	13-JAN-22 22:28:00	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8914-9
Report Date: 24-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8914

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4D-EVENT#4	AQ	28-DEC-21 15:29:00	29-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	140 mg/L	5.0	0.23	4	STDM 2320B	WG312434	04-JAN-22 01:24:02	N/A	N/A	
Chloride	28 mg/L	4.0	0.20	2.0	SW846 9056A	WG312905	14-JAN-22 17:26:00	N/A	N/A	
Nitrate As N	U0.10 mg/L	0.10	0.030	0.050	EPA 353.2	WG312264	29-DEC-21 17:03:34	N/A	N/A	
Solids-Filterable Residue	190 mg/L	10.	5.0	8	STDM 2540C	WG312427	06-JAN-22 08:05:00	SM 2540C	04-JAN-22	
Sulfate	22 mg/L	1.0	0.064	0.50	SW846 9056A	WG312835	13-JAN-22 22:49:00	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8914-11
Report Date: 24-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8914

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1S-EVENT#4	AQ	28-DEC-21 11:35:00	29-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	180 mg/L	5.0	0.23	4	STDM 2320B	WG312434	04-JAN-22 01:26:59	N/A	N/A	
Chloride	26 mg/L	4.0	0.20	2.0	SW846 9056A	WG312905	14-JAN-22 17:46:00	N/A	N/A	
Nitrate As N	1.8 mg/L	0.050	0.015	0.025	EPA 353.2	WG312264	29-DEC-21 16:50:40	N/A	N/A	
Solids-Filterable Residue	170 mg/L	10.	5.0	8	STDM 2540C	WG312427	06-JAN-22 08:05:00	SM 2540C	04-JAN-22	
Sulfate	15 mg/L	1.0	0.064	0.50	SW846 9056A	WG312835	13-JAN-22 23:09:00	N/A	N/A	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG312275	04-JAN-22 11:07:00	SM 5210B	30-DEC-21 0923	

Raw Data Section

WET CHEMISTRY BATCH REPORT
Jan 10 2022, 05:23 pm
Batch: WG312264 Run ID 1: R583819 Run ID 2: R584043

Parameter: Nitrate As N
Prep Date: N/A

Date Analyzed: 29-DEC-21
Prep Method: N/A

Analyst Initials: MH
Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8892-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050		
SO8892-2	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050		
SO8892-3	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	.091	0.091 mg/L	NA	.05	0.015	0.050		
SO8892-4	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050		
SO8892-5	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050		
SO8894-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050		
SO8894-2	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050		
SO8914-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	2	0	U0.10 mg/L M1	NA	.05	0.030	0.10		
SO8914-3	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050		
SO8914-5	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050		
SO8914-7	SAMP	EPA 353.2	5.0000mL	5.0000mL	2	-.0128	U0.10 mg/L	NA	.05	0.030	0.10		
SO8914-9	SAMP	EPA 353.2	5.0000mL	5.0000mL	2	0	U0.10 mg/L	NA	.05	0.030	0.10		
SO8914-11	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	1.81	1.8 mg/L	NA	.05	0.015	0.050		
WG312264-1	MBLANK	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.025 mg/L	NA	.05	0.015	0.050		
WG312264-2	LCS	EPA 353.2	5.0000mL	5.0000mL	1	.991	0.99 mg/L	NA	.05	0.015	0.050		99
WG312264-3	MS	EPA 353.2	5.0000mL	5.0000mL	1	.173	0.17 mg/L	NA	.05	0.015	0.050		35
WG312264-4	MSD	EPA 353.2	5.0000mL	5.0000mL	1	.166	0.17 mg/L	NA	.05	0.015	0.050	4	33

Comments:

SO8914-1	MS/MSD
WG312264-1	SO8892-1
WG312264-2	SO8892-1
WG312264-3	SO8914-1
WG312264-4	SO8914-1

Entered by: MH/SS Date: 1/10/22 Accepted by: [signature] Date: 01/12/22

Katahdin Analytical Services 5000016

KATAHDIN ANALYTICAL SERVICES, LLC.
Wet Chemistry Analysis Run Information Sheet

Analyte: NO3, NO2, and NO3+NO2	**Analyst:** MH
Instrument: LACHAT	**Analysis Date:** 12/29/21

Were pHs of all samples adjusted to 5-9 prior to analysis?

Circle one: (Yes) **No** **pH Paper Lot ID:** 6105008

Were all samples checked for the presence of chlorine prior to analysis?

Circle one: (Yes) **No** **Chloride Paper Lot ID:** 14-860

Analytical Method (Check all that apply):

☑ EPA 353.2 ☐ SM 4500 F ☐ Other

Reagent Information: WG312264 → R583819

Reagent Name	Reagent ID	Expiration Date
Ammonium Chloride Buffer	**W20585**	**1/16/2022**
Sulfanilamide Color Reagent	**W20602**	**1/29/2022**
Carrier	**DI Water**	
Cadmium Reduction Column	**S/N: SWL4871**	

Standards Information:

Standard Name	Concentration (mg/L)	ID	Expiration Date
Nitrate CCV	0.5	W20550	1/2/22
Nitrite CCV	0.5	W20558	1/6/22
Nitrate ICV/LCS	1.0	W20549	1/2/22
Nitrite ICV/LCS	1.0	W20566	1/7/22
Standard #1	2.0	W20559	1/6/22
Standard #2	1.0	W20560	1/6/22
Standard #3	0.5	W20558	1/6/22
Standard #4	0.25	W20561	1/6/22
Standard# 5	0.05	W20565	1/7/22
Standard #6	0.0	DI water	N/A
Nitrate Standard	100.0	W20037	5/27/2022
Nitrite Standard	100.0	W20366	9/16/2022

Notes:

1. Matrix Spiking: To 5mL Sample Alliquot add 0.025 mL of Nitrate Standard and 0.025mL Nitrite Standard

Comments: Pipettes: W5, W3, W9, W8

MS: 200uL, 5mL 5x, 10x, & 20x Dilutions: 1mL, 5mL

2x, 4x Dilutions: 5mL 25x, 50x, 100x, 200x Dilutions: 200uL, 5mL

250x, 500x, 1000x, 2000x, 2500x Dilutions: 200uL, 1ml, 5mL

Author: wetchem

Date : 12/29/2021

Original Run Filename: OM_12-29-2021_04-18-23PM.OMN Created: 12/29/2021 4:18:23 PM
Original Run Author's Signature: [wetchem]
Current Run Filename: OM_12-29-2021_04-18-23PM.OMN Last Modified: 12/29/2021 5:12:20 PM
Current Run Author's Signature: [wetchem]
Description: Default New Run

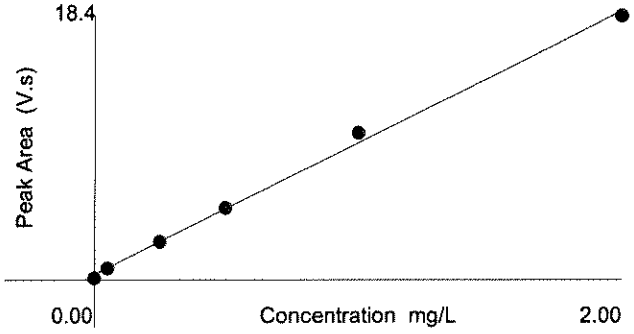
Sample	Channel 1 NITRATE/NITRITE Conc. (mg/L)	Area (V.s)	Height (V)	Channel 2 NITRITE Conc. (mg/L)	Area (V.s)	Height (V)	Detection Time	MDF
STD 2.0	2.00	18.4	1.45	2.00	21.0	1.84	12/29/2021@4:19:25 PM	
STD 1.0	1.00	10.3	0.828	1.00	11.8	1.04	12/29/2021@4:20:33 PM	
STD .5	0.500	5.02	0.399	0.500	6.01	0.529	12/29/2021@4:21:43 PM	
STD .25	0.250	2.65	0.210	0.250	2.95	0.261	12/29/2021@4:22:53 PM	
STD.05	0.0500	0.791	0.0608	0.0500	0.867	0.0760	12/29/2021@4:24:03 PM	
STD 0.0	0.00	0.110	8.29e-3	0.00	7.67e-3	1.54e-3	12/29/2021@4:25:15 PM	
101.8% CCV NO3	0.509	5.07	0.403	-0.0394	-3.02e-3	7.24e-4	12/29/2021@4:28:18 PM	
Known Conc:	0.500			0.500				
Calibration:	Table/Fig. : 1			Table/Fig. : 2				
104.8% CCV NO2	0.504	5.02	0.398	0.524	5.96	0.527	12/29/2021@4:29:28 PM	
Known Conc:	0.500			0.500				
CCB	-0.0381	0.0206	2.29e-3	-0.0218	0.183	7.82e-3	12/29/2021@4:30:42 PM	
Known Conc:	0.00			0.00				
BLANK	-0.0316	0.0809	6.14e-3	-0.0375	0.0174	8.69e-4	12/29/2021@4:31:52 PM	
Known Conc:	0.00			0.00				
NO3 LCS	0.991	9.51	0.753	-0.0380	0.0127	1.08e-3	12/29/2021@4:33:02 PM	
Known Conc:	1.00			1.00				
NO2 LCS	1.03	9.91	0.784	1.04	11.4	1.02	12/29/2021@4:34:13 PM	
Known Conc:	1.00			1.00				
SO8892-1	-0.0431	-0.0252	2.59e-3	-0.0376	0.0161	1.38e-3	12/29/2021@4:35:24 PM	
SO8892-2	-0.0318	0.0784	5.46e-3	-0.0394	-2.85e-3	-7.82e-4	12/29/2021@4:36:35 PM	
SO8892-3	0.0910	1.21	0.0909	-0.0316	0.0802	6.60e-3	12/29/2021@4:37:45 PM	
SO8892-4	-0.0215	0.173	0.0121	-0.0348	0.0460	3.06e-3	12/29/2021@4:38:56 PM	
SO8892-5	-0.0384	0.0175	1.68e-3	-0.0371	0.0220	1.56e-3	12/29/2021@4:40:06 PM	
SO8894-1	-0.0262	0.130	9.77e-3	-0.0360	0.0331	2.58e-3	12/29/2021@4:41:16 PM	
SO8894-2	-0.0127	0.255	0.0182	-0.0369	0.0243	1.83e-3	12/29/2021@4:42:26 PM	
104% CCV NO3	0.520	5.17	0.406	-0.0373	0.0192	8.57e-4	12/29/2021@4:43:38 PM	
Known Conc:	0.500			0.500				
105.4% CCV NO2	0.509	5.06	0.405	0.527	5.98	0.524	12/29/2021@4:44:47 PM	
Known Conc:	0.500			0.500				
CCB	-0.0387	0.0150	1.35e-3	-0.0382	0.0102	9.17e-4	12/29/2021@4:45:59 PM	
Known Conc:	0.00			0.00				
SO8914-1 MW-21-3D	-0.0526	-0.113	-8.00e-3	6.71e-4	0.421	0.0355	12/29/2021@4:47:09 PM	
SO8914-5 MW-21-3S	-0.0363	0.0372	2.85e-3	-0.0356	0.0372	3.13e-3	12/29/2021@4:48:20 PM	
SO8914-7 SHM-10-06	-0.0550	-0.135	-8.56e-3	0.0322	0.754	0.0640	12/29/2021@4:49:30 PM	~~3.00~~
SO8914-11 MS-21-1S	1.81	17.0	1.34	-0.0336	0.0591	4.59e-3	12/29/2021@4:50:39 PM	
SO8914-9 MW-21-4D	-0.0556	-0.141	-8.52e-3	0.0139	0.561	0.0467	12/29/2021@4:51:49 PM	
SO8914-3 AS-DUP	-0.0376	0.0248	2.31e-3	-0.0349	0.0451	3.86e-3	12/29/2021@4:52:59 PM	
MW-21-3D	-0.0909	-0.0474	-3.61e-3	-0.0322	0.244	0.0202	12/29/2021@4:54:08 PM	2.00
MW-21-3D MS	0.398	4.05	0.272	0.225	2.79	0.211	12/29/2021@4:55:18 PM	
MW-21-3D MSD	0.370	3.78	0.250	0.204	2.57	0.194	12/29/2021@4:56:29 PM	
SHM-10-06	-0.0472	-0.0635	-4.14e-3	4.40e-3	0.460	0.0405	12/29/2021@4:57:38 PM	2.00
102% CCV NO3	0.510	5.08	0.398	-0.0389	3.22e-3	2.91e-4	12/29/2021@4:58:49 PM	
Known Conc:	0.500			0.500				
102.8% CCV NO2	0.508	5.06	0.398	0.511	5.82	0.507	12/29/2021@5:00:00 PM	
Known Conc:	0.500			0.500				
CCB	-0.0376	0.0253	1.68e-3	-0.0382	9.62e-3	1.50e-3	12/29/2021@5:01:14 PM	
Known Conc:	0.00			0.00				
SHM-10-06	-0.0472	-0.0633	-4.62e-3	6.42e-3	0.482	0.0419	12/29/2021@5:02:23 PM	2.00
MW-21-4D	-0.0910	-0.0476	-3.33e-3	-9.52e-3	0.363	0.0319	12/29/2021@5:03:33 PM	2.00
LOD 12/29/21	0.0182	0.540	0.0409	-0.0110	0.297	0.0242	12/29/2021@5:04:43 PM	
103.9% CCV NO3	0.517	5.14	0.406	-0.0397	-5.77e-3	7.65e-4	12/29/2021@5:07:50 PM	
Known Conc:	0.500			0.500				
104% CCV NO2	0.511	5.09	0.401	0.520	5.91	0.517	12/29/2021@5:09:01 PM	
Known Conc:	0.500			0.500				
CCB	-0.0373	0.0281	1.95e-3	-0.0379	0.0131	9.41e-4	12/29/2021@5:10:14 PM	
Known Conc:	0.00			0.00				

accidentally ran diluted SO8914-7 twice; only reporting second one MH 12/29/21

Table : 1 (NITRATE/NITRITE)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	2.00	1	18.4	1.45	0.0	1.8	1.96	12/29/2021	4:19:24 PM
2	1.00	1	10.3	0.828	0.0	-7.1	1.07	12/29/2021	4:20:33 PM
3	0.500	1	5.02	0.399	0.0	-0.8	0.504	12/29/2021	4:21:43 PM
4	0.250	1	2.65	0.210	0.0	1.5	0.247	12/29/2021	4:22:53 PM
5	0.0500	1	0.791	0.0608	0.0	6.7	0.0454	12/29/2021	4:24:03 PM
6	0.00	1	0.110	8.29e-3			-0.0284	12/29/2021	4:25:15 PM

Figure : 1 (NITRATE/NITRITE)



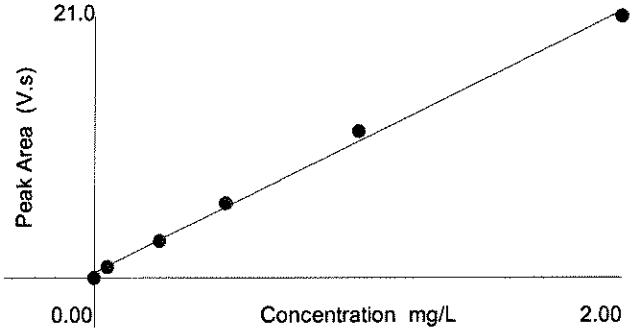
Area = 9.20 * Conc + 0.388
Conc = 0.108 * Area - 0.0403
Correlation Coefficient (r) = 0.99866

Weighting : None

Table : 2 (NITRITE)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	2.00	1	21.0	1.84	0.0	2.1	1.95	12/29/2021	4:19:25 PM
2	1.00	1	11.8	1.04	0.0	-7.2	1.07	12/29/2021	4:20:34 PM
3	0.500	1	6.01	0.529	0.0	-5.4	0.530	12/29/2021	4:21:44 PM
4	0.250	1	2.95	0.261	0.0	3.9	0.240	12/29/2021	4:22:54 PM
5	0.0500	1	0.867	0.0760	0.0	10.0	0.0429	12/29/2021	4:24:05 PM
6	0.00	1	7.67e-3	1.54e-3			-0.0384	12/29/2021	4:25:16 PM

Figure : 2 (NITRITE)



Area = 10.5 * Conc + 0.437
Conc = 0.0946 * Area - 0.0392
Correlation Coefficient (r) = 0.99824

Weighting : None

WET CHEMISTRY BATCH REPORT
Jan 04 2022, 12:30 pm
Batch: WG312275 Run ID 1: R584053 Run ID 2: NONE

Parameter: Total Biochemical Oxygen Demand

Prep Date: 30-DEC-21

Date Analyzed: 04-JAN-22

Prep Method: SM 5210B

Analyst Initials: JL

Prep Chemist: JL

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8914-11	SAMP	SM5210B	300.00mL	300.00mL	1	.11	U2.0 mg/L	NA	2	0.23	2.0		
SO8917-1	SAMP	SM5210B	1.5000mL	300.00mL	200	2.535	510 mg/L	NA	2	47.	400		
SO8918-1	SAMP	SM5210B	300.00mL	300.00mL	1	1.08	U2.0 mg/L	NA	2	0.23	2.0		
SO8919-1	SAMP	SM5210B	0.75000mL	300.00mL	400	2.74	1100 mg/L	NA	2	93.	800		
SO8929-1	SAMP	SM5210B	50.000mL	300.00mL	6	2.39	14. mg/L	NA	2	1.4	12.		
SO8943-2	SAMP	SM5210B	300.00mL	300.00mL	1	-1.06	U2.0 mg/L	NA	2	0.23	2.0		
SO8943-4	SAMP	SM5210B	300.00mL	300.00mL	1	.36	J0.36 mg/L	NA	2	0.23	2.0		
SO8943-6	SAMP	SM5210B	300.00mL	300.00mL	1	-.67	U2.0 mg/L	NA	2	0.23	2.0		
WG312275-1	MBLANK	SM5210B	300.00mL	300.00mL	1	-.05	U1.0 mg/L	NA	2	0.23	2.0		
WG312275-2	LCS	SM5210B	6.0000mL	300.00mL	50	3.81	190 mg/L	NA	2	12.	100		96
WG312275-3	MS	SM5210B	25.000mL	300.00mL	12	3.74	45. mg/L	NA	2	2.8	24.		94

Comments:

WG312275-1	SO8914-11
WG312275-2	SO8914-11
WG312275-3	SO8914-11

Entered by: JL Date: 1/4/22 Accepted by: [signature] Date: 01/04/22

Katahdin Analytical Services 5000020

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 X **CBOD5**

Data Entry By: JL

R584053
WG317275

BOD5,mg/L=(DO consumed- Seed Correction Factor)* Total Volume in mL /Sample Volume in mL
DO consumed = Initial DO - Final DO
Total Volume = 300 mL
Volume of seed added to each sample including (LCSs and MS) in mL = 1

Blank: 0914 1100
LCS: 0920 1105

Sample ID	Seed Volume mL	Initial DO D1	Final DO D2	Cons. DO D1-D2	Seed Correction Factor	In Criteria?
Blank 1	0	8.37	8.15	0.22	N/A	No
Blank 2	0	8.12	8.17	-0.05	N/A	Yes
Blank 3	0	8.26	8.08	0.18	N/A	Yes
Seed Control 1	1	8.17	6.94	1.23	1.23	No
Seed Control 2	2	7.79	5.95	1.84	0.92	No
Seed Control 3	4	8.08	3.15	4.93	1.23	1.23
Seed Control 4	6	8.31	1.06	7.25	1.21	1.21
			Mean Seed Correction Factor (SCF):			**1.22**

LCS Recovery Calculations

GGA Added (mL): 6 **LCS True Value (mg/L):** 198

LCS ID	Calc mg/L	% Recovery	Recovery Acceptance Limits (%): 84.6 TO 115.4
LCS 1	185.98	93.9	LCS Within Criteria ? Yes
LCS 2	190.48	96.2	LCS Within Criteria ? Yes
LCS 3	194.98	98.5	LCS Within Criteria ? Yes
Mean	190.48	96.2	LCS Within Criteria ? Yes

Matrix Spike Recovery Calculations (75-125%)
Spike Recovery=(Seed Corrected DO MS-Seed Corrected DO Sample)/(Total mg Spike)

Katahdin Sample Number	Sample Volume (mL)	Sample BOD (mg/L)	Spk. Sample BOD (mg/L)	mL GGA Spike Added	MS True Value (mg/L)	Spike Recovery (%)
8914	25.00	0.11	44.88	6	47.52	94.4
					#DIV/0!	#DIV/0!
					#DIV/0!	#DIV/0!

All Data From This Batch Must Be Qualified As Follows:

LCS 1
LCS 2
LCS 3
Blank 1 D11
Blank 2

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] CBOD5 [ ]

Data Entry By: JL

Sample Analysis								
Sample ID	Sample Volume mL	Initial DO mg/L *(D1)*	Final DO mg/L *(D2)*	DO Cons. mg/L *(D1-D2)*	Corrected DO cons. *(D1-D2-SCF)*	Calc. BOD mg/L	DO consumed in Criteria?	Adjusted PQL
LCS 1	6.000	8.33	3.39	4.94	3.72	185.98	Yes	100.0
LCS 2	6.000	8.11	3.08	5.03	3.81	190.48	Yes	100.0
LCS 3	6.000	8.27	3.15	5.12	3.90	194.98	Yes	100.0
Mean LCS Result	6.000	8.237	3.207	5.030	3.810	190.479	Yes	100.0
8914-11	25.000	8.54	7.09	1.45	0.23	2.75	No	24.0
0923 1107	50.000	8.72	7.45	1.27	0.05	0.30	No	12.0
	100.000	8.94	7.79	1.15	-0.07	-0.21	No	6.0
	300.000	9.47	8.14	1.33	0.11	0.11	Yes	2.0
0927 **MS** 1111	25.000	8.08	3.12	4.96	3.74	44.88	Yes	24.0
DUP	100.000	9.28	7.84	1.44	0.22	0.66	No	6.0
8918	5.000	8.25	6.90	1.35	0.13	7.77	No	120.0
0902 1113	10.000	7.95	6.98	0.97	-0.25	-7.51	No	60.0
	25.000	8.35	7.05	1.30	0.08	0.95	No	24.0
	50.000	8.74	7.09	1.65	0.43	2.58	No	12.0
	100.000	8.88	7.31	1.57	0.35	1.05	No	6.0
	300.000	9.50	7.20	2.30	1.08	1.08	Yes	2.0
8917	0.500	8.05	6.28	1.77	0.55	329.75	No	1200.0
1025 1118	1.000 1.5	8.16	5.31	2.85	1.63 2.535	488.88	Yes	600.0
	2.000	8.21	3.55	4.66	3.44	515.94	Yes	300.0
	5.000	7.90	<1	6.90	5.68	340.78	No	120.0
	10.000	8.27	<1	7.27	6.05	181.49	No	60.0
	25.000	8.31	<1	7.31	6.09	73.08	No	24.0
8919	0.500 1.75	8.07	5.02	3.05	1.83 2.74	1097.75	Yes	1200.0
1032 1120	1.000	7.98	3.11	4.87	3.65	1094.88	Yes	600.0
	2.000	8.16	<1	7.16	5.94	890.94	No	300.0
	5.000	8.08	<1	7.08	5.86	351.58	No	120.0
8929	25.000	7.46	5.79	1.67	0.45	5.40	No	24.0
1200 1122	50.000	7.98	4.37	3.61	2.39	14.34	Yes	12.0
	100.000	7.60	1.30	6.30	5.08	15.24	Yes	6.0
	300.000	9.41	<1	8.41	7.19	7.19	No	2.0
8943-2	25.000	8.16	7.73	0.43	-0.79	-9.49	No	24.0
1437 1124	50.000	8.31	7.69	0.62	-0.60	-3.60	No	12.0
	100.000	9.01	8.45	0.56	-0.66	-1.98	No	6.0
	300.000	9.20	9.04	0.16	-1.06	-1.06	Yes	2.0
8943-4	25.000	7.84	7.49	0.35	-0.87	-10.45	No	24.0
1446 1129	50.000	8.19	7.49	0.70	-0.52	-3.12	No	12.0
	100.000	8.15	7.53	0.62	-0.60	-1.80	No	6.0
	300.000	8.08	6.50	1.58	0.36	0.36	Yes	2.0
				0.00	-1.22	#DIV/0!	No	#DIV/0!
				0.00	-1.22	#DIV/0!	No	#DIV/0!
				0.00	-1.22	#DIV/0!	No	#DIV/0!

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] CBOD5 [ ]

Data Entry By: JL

Sample Analysis								
Sample ID	Sample Volume mL	Initial DO mg/L *(D1)*	Final DO mg/L *(D2)*	DO Cons. mg/L *(D1-D2)*	Corrected DO cons. *(D1-D2-SCF)*	Calc. BOD mg/L	DO consumed in Criteria?	Adjusted PQL
8943-6	25.000	7.83	7.53	0.30	-0.92	-11.05	No	24.0
1454 1130	50.000	8.07	7.51	0.56	-0.66	-3.96	No	12.0
	100.000	8.30	7.59	0.71	-0.51	-1.53	No	6.0
	300.000	7.94	7.39	0.55	-0.67	-0.67	Yes	2.0
				0.00	-1.22	#DIV/0!	No	#DIV/0!

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

WG312275

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.	pH Meter Calibration		Probe ID:		
Total BOD: SM5210B EPA 405.1	**PQL: 2.0 mg/L**	True Value	Lot ID	Actual Value	Accept? ± 0.05	
Carbonaceous BOD: SM5210B	**PQL: 2.0 mg/L**	4.01				
Glutamic Acid Std (GGA) ID: GGA 123021	GGA Preparation:	Seed Used Source ID and Amount:		7.00		
Nitirification Inhibitor ID:	0.15g Glucose ID:	LAWPCA: ✓	1 mL ✓	10.01		
Phosphate Bffr Soln. ID: W20571	SWL4207	SSD: ✓	1 mL ✓	DO Meter ID: B27869		DO Probe ID: 08100300
$H_{14}MgO_{11}S$ ID: SWL4874	0.15 g Glutamic Acid ID:	$Na_2S_2O_3$ ID:		KI Paper ID: 14-860		pH Paper ID: 6102002
Ferric Chloride Soln. ID: SWL4778	SWL4028	Starch Indicator ID:		Carboy ID: H		1:50 H_2SO_4 ID:
Calcium Chloride Soln. ID: SWL4757		Potassium Iodide Soln. ID:		Pipet IDs: W3710113		
Acid 1 ID (A1):	Acid 2 ID (A2):	Base1 ID (B1):		Base 2 ID (B2):		INC ID:

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
Blank		0914					444		8.37	8.15	1100	
↓		15					1019		8.12	8.17	01	
		16					AC		8.26	8.08	01	
1		0917					SR		8.17	6.94	~~1002~~ 1102	
2		18					302		7.79	5.95	03	
4		19					A85		8.08	3.15	04	
6		20					567		8.31	1.06	04	
LCS		0920					244		8.33	3.39	1105	
↓		21					724		8.11	3.08	06	
		22					1009		8.27	3.15	06	
508914-11	Seres	0923	✓			N	864	25	8.54	7.09	1107	
		24				↓	AZZ	50	8.72	7.45	08	
		25					181	100	8.94	7.79	09	
		28					390	300	9.47	8.14	10	
	MS	0927					188	25	8.08	3.12	1111	
	Dup	29	↓			↓	388	100	9.28	7.84	12	

JC 114122

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
S08918	Fiber	0902	✓			N	071	5	8.25	6.90	1113	
		03					2009	10	7.95	6.98	14	
		04					134T	25	8.35	7.05	15	
		05					54	50	8.14	7.09	15	
		06					333	100	8.88	7.31	16	
		09					108	300	9.50	7.20	17	
S08917	York H	1025	✓			N	412	.5	8.05	6.28	1118	
	Surg kit	26					BP31	1	8.16	5.31	18	
		26					492	2	8.21	3.55	19	
		27					288m	5	7.90	<1	19	
		27					Ft	10	8.27	<1	19	
		28	✓				137	25	8.31	<1	19	
S08919	Unifirst	1032	✓			N	A2	.5	8.07	5.02	1120	
		33					248	-1	7.98	3.11	21	
		34					7127	2	8.16	<1	21	
		35	✓				R2	5	8.08	<1	21	
S08929-1	Penob	1200	✓			N	F19	25	7.46	5.79	1122	
	mccrum	00					047	50	7.98	4.37	22	
		01					R2	100	7.60	1.30	23	
		03	✓				1955	300	9.41	<1	23	

JL 1/4/22

NOTES:

ANALYST 1 JL	DATE 12/30/21
ANALYST 2 JL	DATE 1/4/22
CHECKED BY:	DATE 01/04/22

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

Katahdin Analytical Services 5000025

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.			pH Meter Calibration		Probe ID:		
Total BOD: SM5210B	EPA 405.1		PQL: 2.0 mg/L	True Value	Lot ID	Actual Value	Accept? ± 0.05	
Carbonaceous BOD:	SM5210B		PQL: 2.0 mg/L	4.01				
Glutamic Acid Std (GGA) ID: GGA	GGA Preparation:	Seed Used Source ID and Amount:		7.00				
Nitirification Inhibitor ID:	0.15g Glucose ID:	LAWPCA:	1 mL	10.01				
Phosphate Bffr Soln. ID:		SSD:	1 mL	DO Meter ID: B27869		DO Probe ID:		
$H_{14}MgO_{11}S$ ID:	0.15 g Glutamic Acid ID:	$Na_2S_2O_3$ ID:		KI Paper ID:		pH Paper ID:		
Ferric Chloride Soln. ID:		Starch Indicator ID:		Carboy ID:		1:50 H_2SO_4 ID:		
Calcium Chloride Soln. ID:		Potassium Iodide Soln. ID:		Pipet IDs:				
Acid 1 ID (A1):	Acid 2 ID (A2):	Base1 ID (B1):		Base 2 ID (B2):		INC ID:		

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
S08943-2	Seres	1437	✓			N	17B	25	8.16	7.73	1124	
		38	↓			↓	84	50	8.31	7.69	25	
		39	↓			↓	6666	100	9.01	8.45	26	
		43	↓			↓	F88	300	9.20	9.04	27	
S08943-4	Seres	1446	✓			N	T29	25	7.84	7.49	1128	
		46	↓			↓	118	50	8.19	7.49	28	
		47	↓			↓	B624	100	8.15	7.53	29	
S08943-6	Seres	49	↓			↓	859	300	8.08	6.50	1130	
↓	↓	1454	✓			N	T9	25	7.83	7.53	1130	
		55	↓			↓	360	50	8.07	7.51	31	
		56	↓			↓	L1	100	8.30	7.59	32	
		57					391	300	7.94	7.39	32	

JZ 1/4/22

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *

JR 1/4/22

NOTES:

ANALYST 1 JZ	DATE 12/30/21
ANALYST 2 JR	DATE 1/4/22
CHECKED BY:	DATE 01/04/22

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

Katahdin Analytical Services 5000027

WET CHEMISTRY BATCH REPORT
Jan 07 2022, 12:04 pm
Batch: WG312427 Run ID 1: R584181 Run ID 2: NONE

Parameter: Solids-Filterable Residue
Prep Date: 04-JAN-22

Date Analyzed: 06-JAN-22
Prep Method: SM 2540C

Analyst Initials: JJ
Prep Chemist: JJ

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8892-1	SAMP	STDM 2540C	65.000mL	91.44190g	1.5	1340	1300 mg/L	NA	10	7.5	15.		
SO8892-2	SAMP	STDM 2540C	100.00mL	90.27990g	1	-41	U10. mg/L	NA	10	5.02	10.		
SO8892-3	SAMP	STDM 2540C	100.00mL	73.51420g	1	222	220 mg/L	NA	10	5.02	10.		
SO8892-4	SAMP	STDM 2540C	100.00mL	73.77920g	1	346	350 mg/L	NA	10	5.02	10.		
SO8892-5	SAMP	STDM 2540C	100.00mL	93.17920g	1	1109	1100 mg/L	NA	10	5.02	10.		
SO8894-1	SAMP	STDM 2540C	100.00mL	80.12810g	1	~~100308~~ 308	310 mg/L	NA	10	5.02	10.		
SO8894-2	SAMP	STDM 2540C	100.00mL	87.34630g	1	137	140 mg/L	NA	10	5.02	10.		
SO8914-1	SAMP	STDM 2540C	100.00mL	77.52630g	1	100	100 mg/L	NA	10	5.0	10.		
SO8914-3	SAMP	STDM 2540C	100.00mL	78.40610g	1	103	100 mg/L	NA	10	5.0	10.		
SO8914-7	SAMP	STDM 2540C	100.00mL	85.73850g	1	191	190 mg/L	NA	10	5.0	10.		
SO8914-9	SAMP	STDM 2540C	100.00mL	90.58120g	1	194	190 mg/L	NA	10	5.0	10.		
SO8914-11	SAMP	STDM 2540C	100.00mL	92.80990g	1	168	170 mg/L	NA	10	5.0	10.		
SO8921-1	SAMP	STDM 2540C	100.00mL	102.7626g	1	1325	1300 mg/L	NA	10	5.02	10.		
SO8921-2	SAMP	STDM 2540C	100.00mL	94.07720g	1	-236	U10. mg/L	NA	10	5.02	10.		
SO8921-5	SAMP	STDM 2540C	100.00mL	100.0522g	1	2944	2900 mg/L	NA	10	5.02	10.		
SO8943-2	SAMP	STDM 2540C	100.00mL	89.99110g	1	66	66. mg/L	NA	10	5.0	10.		
SO8943-4	SAMP	STDM 2540C	100.00mL	80.89550g	1	15	15. mg/L	NA	10	5.0	10.		
SO8943-6	SAMP	STDM 2540C	100.00mL	80.64920g	1	112	110 mg/L	NA	10	5.0	10.		
SO8943-8	SAMP	STDM 2540C	100.00mL	85.75180g	1	108	110 mg/L	NA	10	5.0	10.		
WG312427-1	MBLANK	STDM 2540C	100.00mL	94.06290g	1	-8	U8.0 mg/L	NA	10	5.0	10.		
WG312427-2	LCS	STDM 2540C	100.00mL	91.83110g	1	675	680 mg/L	NA	10	5.0	10.		90

Comments:

SO8914-1	MS/MSD
WG312427-1	SO8892-1
WG312427-2	SO8892-1
WG312427-3	SO8892-3
WG312427-4	SO8914-1

Entered by: JJ Date: 1/7/22 Accepted by: [signature] Date: 01/07/22

Katahdin Analytical Services 5000028

WG372427
RS584181

KATAHDIN ANALYTICAL SERVICES, LLC

TOTAL DISSOLVED SOLIDS/TOTAL SUSPENDED SOLIDS

Total Disolved Solids: EPA 160.1____ Total Dissolved Solids: SM 2540C ✓ PQL: 10mg/L

Total Suspended Solids: EPA 160.2____ Total Suspended Solids: SM 2540D____ PQL: 4mg/L

Aqueous Solids LCS Sand ID/Lot# W20526

Filter Lot # SWL4878

ASTM Class Weights

Balance ID: 01

True WT (g)	Initial WT (g)	Final WT (g)
0.1000	0.0999	0.1000
1.0000	0.9999	0.9997
10.0000	9.9998	9.9996
100.0000	100.0001	99.9998

Oven Temperatures (C)

TDS: 180 +/- 2°C, TSS: 103 - 105 °C

Oven ID: 01

In Temp.	180	Date:	1/4/22	Time:	13:30
Out Temp.	180	Date:	1/5/22	Time:	8:20
In Temp.	180	Date:	1/5/22	Time:	10:20
Out Temp.	180	Date:	1/5/22	Time:	13:15
In Temp.		Date:		Time:	
Out Temp.		Date:		Time:	

Notes:

* 93.0683 Due to low sample volume, for sample S08892-1, 65 mL was all that could be filtered. Final weighing 1/6: 0.1002, 0.9998, 99.9997

both DUP's did not pass, only reporting LCS

KAS Sample ID	Sample Volume (ml)	Time of Initial Aliquot	Filter or Dish ID	Filter or Dish Wt. (g)	Dry 1 Dish/Filter + Sample Residue Wt. (g)	Dry 2 Dish/Filter + Sample Residue Wt. (g)	Time of Final Weighing (Analysis) 1/6
Blank	100	9:00	206	94.0637	94.0627	94.0629	8:05
LCS	100		213	91.7636	91.8301	91.8311	
* S08892-1	65		217	91.3548	91.4409	91.4419	
-2	100		219	90.2840	90.2793	90.2799	
-3	↓		404	73.4920	73.5138	73.5142	
-4			413	73.7446	73.7782	73.7792	
-5	↓		ARK	~~93.0607~~	93.1782	93.1792	
S08894-1	100		00046	80.0973	80.1271	80.1281	
-2			10	87.3326	87.3455	87.3463	
S08914-1			58	77.5263	77.5256	77.5263	
-3			77	78.3958	78.4051	78.4061	
-5			007	90.0675	90.0102	90.0112	
-7			008	85.7194	85.7375	85.7385	1/6
-9			009	90.5618	90.5808	~~90.5809~~	90.5812
-11			010	92.7931	92.8091	92.8099	
S08921-1			J741	102.6301	102.7616	102.7626	
-2			J745	94.1008	94.0782	94.0772	
-5			W40	99.7578	100.0514	100.0522	
S08943-2			W35	89.9845	89.9902	89.9911	
-4			AL6	80.8940	80.8945	80.8955	
-6			AL11	80.6380	80.6484	80.6492	
-8			AL14	85.7410	85.7508	85.7518	
S08892-3 ~~S08892-3 DUP~~ DUP			~~AL16~~	~~91.4812~~	~~91.4680~~	~~91.4690~~	
~~S08914-1 DUP~~	↓	9:30	AL22	~~87.1~~ 87.1600	~~87.1338~~	~~87.1348~~	8:15

re-running 1/7 SS

SS 1/6

Analyst: SS Date: 1/4/22

Checked By: Date: 01/06/22

WET CHEMISTRY BATCH REPORT
Jan 10 2022, 12:03 pm
Batch: WG312434 Run ID 1: R584332 Run ID 2: NONE

Parameter: Alkalinity
Prep Date: N/A

Date Analyzed: 04-JAN-22
Prep Method: N/A

Analyst Initials: ZL
Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8914-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	66.598	66. mg/L	NA	5	0.23	5.0		
SO8914-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	71.081	71. mg/L	NA	5	0.23	5.0		
SO8914-7	SAMP	STDM 2320B	50.0mL	50.0mL	1	175.497	180 mg/L	NA	5	0.23	5.0		
SO8914-9	SAMP	STDM 2320B	50.0mL	50.0mL	1	144.147	140 mg/L	NA	5	0.23	5.0		
SO8914-11	SAMP	STDM 2320B	50.0mL	50.0mL	1	177.598	180 mg/L	NA	5	0.23	5.0		
WG312434-1	MBLANK	STDM 2320B	50.0mL	50.0mL	1	1.818	J1.8 mg/L	NA	5	0.23	5.0		
WG312434-2	LCS	STDM 2320B	50.0mL	50.0mL	1	136.111	140 mg/L	NA	5	0.23	5.0		113
WG312434-3	MS	STDM 2320B	50.0mL	50.0mL	1	287.897	290 mg/L	NA	5	0.23	5.0		110

Comments:

WG312434-1	SO8914-11
WG312434-2	SO8914-11
WG312434-3	SO8914-11

Entered by: ZL Date: 1/10/22 Accepted by: [signature] Date: 01/12/22

Katahdin Analytical Services 5000030

WET CHEMISTRY BATCH REPORT
Jan 10 2022, 12:05 pm
Batch: WG312435

Parameter: Bicarbonate (As CaCO3)

Prep Date: N/A

Date Analyzed: 04-JAN-22

Prep Method: N/A

Analyst Initials: ZL

Prep Chemist: N/A

Sample	Samp Type	Method	Alkalinity	pH	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8868-2	SAMP	SM4500CO2 D	331.mg/L	6.09pH	1	331.163	330 mg/L	NA	5	.497	5		
SO8868-3	SAMP	SM4500CO2 D	261.mg/L	6.12pH	1	261.22682	260 mg/L	NA	5	.497	5		
SO8868-4	SAMP	SM4500CO2 D	118.mg/L	6.27pH	1	118.00056	120 mg/L	NA	5	.497	5		
SO8868-5	SAMP	SM4500CO2 D	93.3mg/L	5.77pH	1	93.2715	93. mg/L	NA	5	.497	5		
SO8868-7	SAMP	SM4500CO2 D	336.mg/L	6.09pH	1	335.65648	340 mg/L	NA	5	.497	5		
WG312435-1	MBLANK	SM4500CO2 D	1.82mg/L	5.06pH	1	1.81792	U5.0 mg/L	NA	5	.497	5		
WG312435-2	DUP	SM4500CO2 D	336.mg/L	6.12pH	1	336.47864	340 mg/L	NA	5	.497	5	0	

Comments:

WG312435-1 SO8868-2
WG312435-2 SO8868-7

Entered by: ZL Date: 1/10/22 Accepted by: Date: 01/12/22

Katahdin Analytical Services 5000031

Start time:	1/4/2022 0:29						
Results							
No.	Comment / ID	Start time	Rx	Result	Unit	Name	RECOVERY
1/3	CCV	1/4/2022	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	132.328	mg/L	Total Alkal	105.86%
			R3 =	8.103	pH	pH	
			R4 =	19.8	oC	TEMPERATURE	
2/3	CCB	1/4/2022	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	1.818	mg/L	Total Alkalinity	
			R3 =	5.059	pH	pH	
			R4 =	19.9	oC	TEMPERATURE	
3/3	LCS	1/4/2022	R1 =	89.055	mg/L	P Alkalinity- pH8.2	
			R2 =	139.8	mg/L	Total Alkalinity	
			R3 =	10.546	pH	pH	
			R4 =	19.8	oC	TEMPERATURE	
1/1	LCS	1/4/2022	R1 =	97.833	mg/L	P Alkalinity- pH8.2	
			R2 =	136.111	mg/L	Total Alkalinity	
			R3 =	10.519	pH	pH	
			R4 =	20.2	oC	TEMPERATURE	
1/16	SO8914-3	1/4/2022	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	66.598	mg/L	Total Alkalinity	
			R3 =	5.524	pH	pH	
			R4 =	12.5	oC	TEMPERATURE	
2/16	SO8914-5	1/4/2022	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	71.081	mg/L	Total Alkalinity	
			R3 =	5.628	pH	pH	
			R4 =	12.3	oC	TEMPERATURE	
3/16	SO8914-7	1/4/2022	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	175.497	mg/L	Total Alkalinity	
			R3 =	5.787	pH	pH	
			R4 =	12.5	oC	TEMPERATURE	
4/16	SO8914-9	1/4/2022	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	144.147	mg/L	Total Alkalinity	
			R3 =	5.832	pH	pH	
			R4 =	13.2	oC	TEMPERATURE	
5/16	SO8914-11	1/4/2022	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	177.598	mg/L	Total Alkalinity	
			R3 =	6.083	pH	pH	
			R4 =	12.7	oC	TEMPERATURE	
6/16	SO8868-2	1/4/2022	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	331.202	mg/L	Total Alkalinity	
			R3 =	6.091	pH	pH	
			R4 =	12.9	oC	TEMPERATURE	
7/16	SO8868-3	1/4/2022	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	261.26	mg/L	Total Alkalinity	
			R3 =	6.122	pH	pH	
			R4 =	13	oC	TEMPERATURE	

8/16	CCV	1/4/2022 1	R1 =	13.136	mg/L	P Alkalinity- pH8.2	
			R2 =	130.939	mg/L	Total Alkal	104.75%
			R3 =	8.638	pH	pH	
			R4 =	18.8	oC	TEMPERATURE	
9/16	CCB	1/4/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	1.564	mg/L	Total Alkalinity	
			R3 =	5.032	pH	pH	
			R4 =	19.1	oC	TEMPERATURE	
10/16	SO8868-4	1/4/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	118.022	mg/L	Total Alkalinity	
			R3 =	6.267	pH	pH	
			R4 =	14.4	oC	TEMPERATURE	
11/16	SO8868-5	1/4/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	93.277	mg/L	Total Alkalinity	
			R3 =	5.773	pH	pH	
			R4 =	14.4	oC	TEMPERATURE	
12/16	SO8868-7	1/4/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	335.696	mg/L	Total Alkalinity	
			R3 =	6.091	pH	pH	
			R4 =	15	oC	TEMPERATURE	
13/16	SO8868-7 DUP	1/4/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	336.521	mg/L	Total Alkalinity	
			R3 =	6.12	pH	pH	
			R4 =	15.1	oC	TEMPERATURE	
14/16	SO8914-11 MS	1/4/2022 1	R1 =	9.739	mg/L	P Alkalinity- pH8.2	
			R2 =	287.897	mg/L	Total Alkalinity	
			R3 =	8.363	pH	pH	
			R4 =	16.1	oC	TEMPERATURE	
15/16	CCV	1/4/2022 1	R1 =	14.108	mg/L	P Alkalinity- pH8.2	
			R2 =	130.187	mg/L	Total Alkal	104.15%
			R3 =	8.625	pH	pH	
			R4 =	18.6	oC	TEMPERATURE	
16/16	CCB	1/4/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	1.829	mg/L	Total Alkalinity	
			R3 =	5.028	pH	pH	
			R4 =	18.8	oC	TEMPERATURE	
Start time:	1/4/2022 0:15						
Results							
No.	Comment / ID	Start time	Rx	Result	Unit	Name	
Calibration data							
	Number of segme	1					
	Slope	-56.63 mV/pH					
	Zero point	6.908 pH					
	Calibration tempe	25.0 oC					

WG312934 RS84332
TB WG312935 RS84334
~~WG312976~~

KATAHDIN ANALYTICAL SERVICES

ALKALINITY, BICARBONATE, CARBONATE, FREE CO2 - DL 25 AUTOTITRATOR

Analysis: EPA 310.1 SM2320B **Calculations:** SM 4500-CO2 D

pH Probe ID:	DL11-SC		
Alkalinity Acid Reagent:	W20501	**Buffer pH 4 ID:**	SWL 4798
Acid Concentration:	0.02N	**Buffer pH 7 ID:**	4901
Alkalinity Check Standard:	W20605 TV=129 mg/L	**Buffer pH 10 ID:**	4898
Alkalinity MS:	W20459 TV=128 mg/L	**Pipette IDs:**	W11
Sulfuric Acid Titrant ID:			

Sample ID	Run #	Volume (mL)	Sample ID	Run #	Volume (mL)	Comments - Must indicate which sample
CCV	1					
CCB	2					
LCS	3					LCS fail
LCS	1					
8914-3	1					
-5	2					
-7	3					
-9	4					
-11	5					
8868-2	6					
-3	7					
CCV	8			ZL		
CCB	9			1/6/22		
-4	10					
-5	11					
-7	12					
~~-DUP~~	13					
8914-11MS	14					
CCV	15					
CCB	16					

Analyst: ZL **Date:** 1/9/22

Checked By: **Date:**

WET CHEMISTRY BATCH REPORT
Jan 10 2022, 04:02 pm
Batch: WG312546 Run ID 1: R584347 Run ID 2: NONE

Parameter: Alkalinity
Prep Date: N/A

Date Analyzed: 06-JAN-22
Prep Method: N/A

Analyst Initials: ZL
Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8914-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	107.666	110 mg/L	NA	5	0.23	5.0		
SO8921-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	5.716	5.7 mg/L	NA	5	0.23	5.0		
SO8943-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	121.628	120 mg/L	NA	5	0.23	5.0		
SO8943-4	SAMP	STDM 2320B	50.0mL	50.0mL	1	25.111	25. mg/L	NA	5	0.23	5.0		
SO8943-6	SAMP	STDM 2320B	50.0mL	50.0mL	1	115.201	120 mg/L	NA	5	0.23	5.0		
SO8943-8	SAMP	STDM 2320B	50.0mL	50.0mL	1	204.872	200 mg/L	NA	5	0.23	5.0		
SO8945-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	163.177	160 mg/L	NA	5	0.23	5.0		
SP0040-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	153.469	150 mg/L	NA	5	0.23	5.0		
SP0040-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	317.116	320 mg/L	NA	5	0.23	5.0		
SP0040-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	2.299	J2.3 mg/L	NA	5	0.23	5.0		
SP0040-4	SAMP	STDM 2320B	50.0mL	50.0mL	1	2.715	J2.7 mg/L	NA	5	0.23	5.0		
SP0061-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	334.055	330 mg/L	NA	5	0.23	5.0		
SP0061-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	367.767	370 mg/L	NA	5	0.23	5.0		
SP0061-7	SAMP	STDM 2320B	50.0mL	50.0mL	1	535.293	540 mg/L	NA	5	0.23	5.0		
SP0061-9	SAMP	STDM 2320B	50.0mL	50.0mL	1	445.891	440 mg/L	NA	5	0.23	5.0		
WG312546-1	MBLANK	STDM 2320B	50.0mL	50.0mL	1	2.675	J2.7 mg/L	NA	5	0.23	5.0		
WG312546-2	LCS	STDM 2320B	50.0mL	50.0mL	1	133.52	130 mg/L	NA	5	0.23	5.0		111
WG312546-3	MS	STDM 2320B	50.0mL	50.0mL	1	218.321	220 mg/L	NA	5	0.23	5.0		103
WG312546-4	MSD	STDM 2320B	50.0mL	50.0mL	1	219.575	220 mg/L	NA	5	0.23	5.0	0	104

Comments:

SO8914-1	MS/MSD
SP0061-2	MS/MSD on VOC & Metals only
WG312546-1	SO8914-1
WG312546-2	SO8914-1
WG312546-3	SO8914-1
WG312546-4	SO8914-1

Entered by: ZL Date: 1/10/22 Accepted by: [signature] Date: 01/12/22

Katahdin Analytical Services 5000035

WET CHEMISTRY BATCH REPORT
Jan 10 2022, 04:02 pm
Batch: WG312547

Parameter: Bicarbonate (As CaCO3)

Date Analyzed: 06-JAN-22

Analyst Initials: ZL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Alkalinity	pH	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8921-2	SAMP	SM4500CO2 D	5.72mg/L	6.75pH	1	5.71012	5.7 mg/L	NA	5	.497	5		
SO8945-1	SAMP	SM4500CO2 D	163.mg/L	6.43pH	1	163.13418	160 mg/L	NA	5	.497	5		
WG312547-1	MBLANK	SM4500CO2 D	2.68mg/L	5.34pH	1	2.67484	U5.0 mg/L	NA	5	.497	5		

Comments:

WG312547-1 SO8921-2

Katahdin Analytical Services 5000036

Entered by: ZL Date: 1/10/22 Accepted by: [signature] Date: 01/12/22 J

WET CHEMISTRY BATCH REPORT
Jan 10 2022, 04:02 pm
Batch: WG312548

Parameter: Carbonate (As CaCO3)

Prep Date: N/A

Date Analyzed: 06-JAN-22

Prep Method: N/A

Analyst Initials: ZL

Prep Chemist: N/A

Sample	Samp Type	Method	Bicarb	pH	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8921-2	SAMP	SM4500CO2 D		6.75pH	1	.00305	U5.0 mg/L	NA	5	.497	5		
SO8945-1	SAMP	SM4500CO2 D		6.43pH	1	.04146	U5.0 mg/L	NA	5	.497	5		
WG312548-1	MBLANK	SM4500CO2 D		5.34pH	1	.00005	U5.0 mg/L	NA	5	.497	5		

Comments:

WG312548-1 SO8921-2

Entered by: ZL Date: 1/10/22 Accepted by: Date: 01/12/22

Katahdin Analytical Services 5000037

WG312546 RS84347
TB WG312547 RS84348
TC WG312548 RS84349

KATAHDIN ANALYTICAL SERVICES

ALKALINITY, BICARBONATE, CARBONATE, FREE CO2 - DL 25 AUTOTITRATOR

Analysis: EPA 310.1 SM2320B **Calculations:** SM 4500-CO2 D

pH Probe ID: DGIII-SC			
Alkalinity Acid Reagent: W20501		**Buffer pH 4 ID:** SWL 4798	
Acid Concentration: 0.02N		**Buffer pH 7 ID:** 4901	
Alkalinity Check Standard: W20605 TV=125 mg/L		**Buffer pH 10 ID:** 4898	
Alkalinity MS: W20531 TV=120 mg/L		**Pipette IDs:** WL1	
Sulfuric Acid Titrant ID:			

Sample ID	Run #	Volume (mL)	Sample ID	Run #	Volume (mL)	Comments - Must indicate which sample
CCV	1	50	-5	9	50	
CCB	2	|	-6	10	|	
LCS	3	|	CCV	11	|	
LCSD	4	—	CCB	12	|	
			-9	13	|	
8914-1	1	50	CCV	14	|	
-1 MS	2	44	CCB	15	—	
-1 MSD	3	|				
8921-1	4	50				8921-1 fail
-2	5	|				
-5	6	|				-5 fail
8943-2	7	|				
-4	8	|				
CCV	9	|				
CCB	10	—				
				1/6/22		
8943-6	1	50				
-8	2	|				
8945-1	3	|				
SP00410-1	4	|				
-2	5	|				
-3	6	|				
-4	7	|				
SP00611-2	8	—				

Analyst: ZL **Date:** 1/6/22

Checked By: [signature] **Date:** 01/12/22

Start time:	1/6/2022 11:54						
Results							
No.	Comment / ID	Start time	Rx	Result	Unit	Name	RECOVERY
1/4	CCV	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	130.949	mg/L	Total Alkal	104.76%
			R3 =	7.803	pH	pH	
			R4 =	20.5	oC	TEMPERATURE	
2/4	CCB	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.675	mg/L	Total Alkalinity	
			R3 =	5.338	pH	pH	
			R4 =	20.9	oC	TEMPERATURE	
3/4	LCS	1/6/2022 1	R1 =	103.152	mg/L	P Alkalinity- pH8.2	
			R2 =	133.52	mg/L	Total Alkalinity	
			R3 =	10.534	pH	pH	
			R4 =	20.8	oC	TEMPERATURE	
4/4	LCSD	1/6/2022 1	R1 =	99.807	mg/L	P Alkalinity- pH8.2	
			R2 =	133.811	mg/L	Total Alkalinity	
			R3 =	10.541	pH	pH	
			R4 =	20.5	oC	TEMPERATURE	
1/10	SO8914-1	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	107.666	mg/L	Total Alkalinity	
			R3 =	5.659	pH	pH	
			R4 =	11.2	oC	TEMPERATURE	
2/10	SO8914-1 MS	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	218.321	mg/L	Total Alkalinity	
			R3 =	6.212	pH	pH	
			R4 =	12.3	oC	TEMPERATURE	
3/10	SO8914-1 MSD	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	219.575	mg/L	Total Alkalinity	
			R3 =	6.253	pH	pH	
			R4 =	12.6	oC	TEMPERATURE	
4/10	SO8921-1	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	NaN	mg/L	Total Alkalinity	
			R3 =	6.533	pH	pH	
			R4 =	11.7	oC	TEMPERATURE	
5/10	SO8921-2	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	5.716	mg/L	Total Alkalinity	
			R3 =	6.754	pH	pH	
			R4 =	13	oC	TEMPERATURE	
6/10	SO8921-5	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	NaN	mg/L	Total Alkalinity	
			R3 =	7.46	pH	pH	
			R4 =	13	oC	TEMPERATURE	
7/10	SO8943-2	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	121.628	mg/L	Total Alkalinity	
			R3 =	6.677	pH	pH	
			R4 =	14.5	oC	TEMPERATURE	

8/10	SO8943-4	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	25.111	mg/L	Total Alkalinity	
			R3 =	5.57	pH	pH	
			R4 =	14.6	oC	TEMPERATURE	
9/10	CCV	1/6/2022 1	R1 =	10.993	mg/L	P Alkalinity- pH8.2	
			R2 =	132.401	mg/L	Total Alkal	105.92%
			R3 =	8.534	pH	pH	
			R4 =	19.6	oC	TEMPERATURE	
10/10	CCB	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	3.334	mg/L	Total Alkalinity	
			R3 =	5.385	pH	pH	
			R4 =	20.2	oC	TEMPERATURE	
1/15	SO8943-6	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	115.201	mg/L	Total Alkalinity	
			R3 =	5.891	pH	pH	
			R4 =	14	oC	TEMPERATURE	
2/15	SO8943-8	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	204.872	mg/L	Total Alkalinity	
			R3 =	5.979	pH	pH	
			R4 =	14.3	oC	TEMPERATURE	
3/15	SO8945-1	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	163.177	mg/L	Total Alkalinity	
			R3 =	6.432	pH	pH	
			R4 =	15.5	oC	TEMPERATURE	
4/15	SP0040-1	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	153.469	mg/L	Total Alkalinity	
			R3 =	6.757	pH	pH	
			R4 =	15.1	oC	TEMPERATURE	
5/15	SP0040-2	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	317.116	mg/L	Total Alkalinity	
			R3 =	6.545	pH	pH	
			R4 =	15	oC	TEMPERATURE	
6/15	SP0040-3	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.299	mg/L	Total Alkalinity	
			R3 =	5.565	pH	pH	
			R4 =	15.4	oC	TEMPERATURE	
7/15	SP0040-4	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.715	mg/L	Total Alkalinity	
			R3 =	5.377	pH	pH	
			R4 =	15.9	oC	TEMPERATURE	
8/15	SP0061-2	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	334.055	mg/L	Total Alkalinity	
			R3 =	7.179	pH	pH	
			R4 =	16.9	oC	TEMPERATURE	
9/15	SP0061-5	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	367.767	mg/L	Total Alkalinity	
			R3 =	6.747	pH	pH	

			R4 =	17.6	oC	TEMPERATURE	
10/15	SP0061-7	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	535.293	mg/L	Total Alkalinity	
			R3 =	7.663	pH	pH	
			R4 =	17.7	oC	TEMPERATURE	
11/15	CCV	1/6/2022 1	R1 =	10.544	mg/L	P Alkalinity- pH8.2	
			R2 =	130.019	mg/L	Total Alkal	104.02%
			R3 =	8.537	pH	pH	
			R4 =	20	oC	TEMPERATURE	
12/15	CCB	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.571	mg/L	Total Alkalinity	
			R3 =	5.634	pH	pH	
			R4 =	19.9	oC	TEMPERATURE	
13/15	SP0061-9	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	445.891	mg/L	Total Alkalinity	
			R3 =	6.563	pH	pH	
			R4 =	18.6	oC	TEMPERATURE	
14/15	CCV	1/6/2022 1	R1 =	11.328	mg/L	P Alkalinity- pH8.2	
			R2 =	132.83	mg/L	Total Alkal	106.26%
			R3 =	8.478	pH	pH	
			R4 =	20.1	oC	TEMPERATURE	
15/15	CCB	1/6/2022 1	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.492	mg/L	Total Alkalinity	
			R3 =	5.526	pH	pH	
			R4 =	20.1	oC	TEMPERATURE	
Start time:	1/6/2022 11:00						
Results							
No.	Comment / ID	Start time	Rx	Result	Unit	Name	
Calibration data							
	Number of segm	1					
	Slope	-58.38 mV/pH					
	Zero point	6.959 pH					
	Calibration temp	25.0 oC					

WET CHEMISTRY BATCH REPORT
Jan 13 2022, 07:28 am
Batch: WG312585 Run ID 1: R584504 Run ID 2: NONE

Parameter: Solids-Filterable Residue
Prep Date: 07-JAN-22

Date Analyzed: 10-JAN-22
Prep Method: SM 2540C

Analyst Initials: JJ/JL
Prep Chemist: JJ/JL

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8914-5	SAMP	STDM 2540C	100.00mL	133.2754g	1	115	120 mg/L	NA	10	5.0	10.		
WG312585-1	MBLANK	STDM 2540C	100.00mL	87.06340g	1	-111	U8.0 mg/L	NA	10	5.0	10.		
WG312585-2	LCS	STDM 2540C	100.00mL	87.99630g	1	680	680 mg/L	NA	10	5.0	10.		91
WG312585-4	LCSD	STDM 2540C	100.00mL	131.4022g	1	659	660 mg/L	NA	10	5.0	10.	3	88
WG312585-5	DUP	STDM 2540C	100.00mL	142.7732g	1	94	94. mg/L	NA	10	5.02	10.	20	

Comments:

WG312585-1	SO8914-5
WG312585-2	SO8914-5
WG312585-4	SO8914-5
WG312585-5	SO8914-5

Entered by: JJ Date: 1/13/22 Accepted by: Date: 01/13/22

Katahdin Analytical Services 5000042

WG 312585
R584504

KATAHDIN ANALYTICAL SERVICES, LLC

TOTAL DISSOLVED SOLIDS/TOTAL SUSPENDED SOLIDS

Total Disolved Solids: EPA 160.1____ Total Dissolved Solids: SM 2540C ✓ PQL: 10mg/L

Total Suspended Solids: EPA 160.2____ Total Suspended Solids: SM 2540D____ PQL: 4mg/L

Aqueous Solids LCS Sand ID/Lot# W20618

Filter Lot # SWL-4878

ASTM Class Weights

Balance ID: 01

True WT (g)	Initial WT (g)	Final WT (g)
0.1000	0.1002	0.1002
1.0000	0.9999	0.9999
10.0000	10.0001	10.0001
100.0000	100.0001	99.9998

Notes:

Oven Temperatures (C)

TDS: 180 +/- 2°C, TSS: 103 - 105 °C

Oven ID: 01

In Temp. 180	Date: 1/7/22	Time: 12:00
Out Temp. 180	Date: 1/8/22	Time: 11:50
In Temp. 180	Date: 1/10/22	Time: 1134
Out Temp. 178	Date: 1/10/22	Time: 1235
In Temp.	Date:	Time:
Out Temp.	Date:	Time:

KAS Sample ID	Sample Volume (ml)	Time of Initial Aliquot	Filter or Dish ID	Filter or Dish Wt. (g)	Dry 1 Dish/Filter + Sample Residue Wt. (g)	Dry 2 Dish/Filter + Sample Residue Wt. (g)	Time of Final Weighing (Analysis)
Blank	100	10:05	AL25	87.0745	87.0638	87.0634	1412
LCS			BP6	87.9283	87.9972	87.9963	
LCSD			JF	131.3363	131.4019	131.4072	
S08914-5			AC	133.2639	133.2755	133.2754	
S08914-5 DUP		10:20	AG	142.7638	142.7731	142.7732	1415

JD 1/7

Analyst: JD KR Date: 1/7/22

Checked By: Date: 01/13/22

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Wet Chemistry Batch Report

Analyst Initials: SS
Date Analyzed: 14-JAN-22

Batch: WG312904
Prep Method: E300.0
Prep Chemist: SS

Sample	Samp Type	Method	Parameter	DF	Result	Rpt. Result	Units	PQL	Adj. PQL	MDL	Adj. MDL	RPD	Rec.
SO8886-1DL	SAMP	EPA 300.0	Chloride	2	21.266	21.	mg/L	2	4.0	.0993	0.20		
SP0006-1DL	SAMP	EPA 300.0	Chloride	2	28.8176	29.	mg/L	2	4.0	.0993	0.20		
SP0012-1DL	SAMP	EPA 300.0	Chloride	2	33.1155	33.	mg/L	2	4.0	.0993	0.20		
WG312904-1	MBLANK	EPA 300.0	Chloride	1	.1565	J 0.16	mg/L	2	2.0	.0993	0.099		
WG312904-2	LCS	EPA 300.0	Chloride	1	3.5996	3.60	mg/L	2	2.0	.0993	0.099		96.0

Comments:

WG312904-1 SO8886-1
WG312904-2 SO8886-1

Entered by: SS Date: 1/18/22 Accepted by: Date: 01/19/22

Katahdin Analytical Services 5000044

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Wet Chemistry Batch Report

Analyst Initials: SS
Date Analyzed: 14-JAN-22

Batch: WG312905
Prep Method: N/A
Prep Chemist: SS

Sample	Samp Type	Method	Parameter	DF	Result		Rpt. Result	Units	PQL	Adj. PQL	MDL	Adj. MDL	RPD	Rec.
SO8914-11DL	SAMP	SW846 9056A	Chloride	2	26.1457		26	mg/L	2	4.0	.0993	0.20		
SO8914-1DL	SAMP	SW846 9056A	Chloride	2	27.2314		27	mg/L	2	4.0	.0993	0.20		
SO8914-3DL	SAMP	SW846 9056A	Chloride	2	30.7587		31	mg/L	2	4.0	.0993	0.20		
SO8914-5DL	SAMP	SW846 9056A	Chloride	2	30.8079		31	mg/L	2	4.0	.0993	0.20		
SO8914-7DL	SAMP	SW846 9056A	Chloride	2	31.6201		32	mg/L	2	4.0	.0993	0.20		
SO8914-9DL	SAMP	SW846 9056A	Chloride	2	27.6137		28	mg/L	2	4.0	.0993	0.20		
SO8943-2DL	SAMP	SW846 9056A	Chloride	2	25.7423		26	mg/L	2	4.0	.0993	0.20		
SO8943-4DL	SAMP	SW846 9056A	Chloride	2	37.1684		37	mg/L	2	4.0	.0993	0.20		
SO8943-6DL	SAMP	SW846 9056A	Chloride	2	33.8406		34	mg/L	2	4.0	.0993	0.20		
SO8943-8DL	SAMP	SW846 9056A	Chloride	2	23.5426		24	mg/L	2	4.0	.0993	0.20		
WG312905-1	MBLANK	SW846 9056A	Chloride	1	.1565	J	0.16	mg/L	2	2.0	.0993	0.099		
WG312905-2	LCS	SW846 9056A	Chloride	1	3.5996		3.60	mg/L	2	2.0	.0993	0.099		96.0
WG312905-3	MS	SW846 9056A	Chloride	2	33.0331		33.	mg/L	2	4.0	.0993	0.20		95.5
WG312905-4	MSD	SW846 9056A	Chloride	2	33.1782		33.	mg/L	2	4.0	.0993	0.20	0	97.4

Comments:

SO8914-1	MS/MSD
WG312905-1	SO8914-1
WG312905-2	SO8914-1
WG312905-3	SO8914-1
WG312905-4	SO8914-1

Entered by: SS Date: 1/18/22 Accepted by: Date: 01/19/22

Katahdin Analytical Services 5000045

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Wet Chemistry Batch Report

Analyst Initials: SS
Date Analyzed: 14-JAN-22
15-JAN-22

Batch: WG312907
Prep Method: N/A
Prep Chemist: SS

Sample	Samp Type	Method	Parameter	DF	Result	Rpt. Result	Units	PQL	Adj. PQL	MDL	Adj. MDL	RPD	Rec.
SP0041-1DL	SAMP	SW846 9056A	Bromide	1	.217	J 0.22	mg/L	.5	0.50	.2	0.20		
SP0041-1DLB	SAMP	SW846 9056A	Chloride	10	91.3627	91	mg/L	2	20.	.5	5.0		
SP0041-2DL	SAMP	SW846 9056A	Bromide	1	.1932	U 0.40	mg/L	.5	0.50	.2	0.20		
SP0041-2DLB	SAMP	SW846 9056A	Chloride	10	122.5748	120	mg/L	2	20.	.5	5.0		
SP0041-3DL	SAMP	SW846 9056A	Bromide	1	.0766	U 0.40	mg/L	.5	0.50	.2	0.20		
SP0041-3DLB	SAMP	SW846 9056A	Chloride	10	117.1756	120	mg/L	2	20.	.5	5.0		
SP0041-4DL	SAMP	SW846 9056A	Bromide	1	.2725	J 0.27	mg/L	.5	0.50	.2	0.20		
SP0041-4DLB	SAMP	SW846 9056A	Chloride	5	32.882	33	mg/L	2	10.	.5	2.5		
SP0041-5DL	SAMP	SW846 9056A	Bromide	1	.184	U 0.40	mg/L	.5	0.50	.2	0.20		
SP0041-5DLB	SAMP	SW846 9056A	Chloride	5	36.2212	36	mg/L	2	10.	.5	2.5		
SP0041-6DL	SAMP	SW846 9056A	Bromide	1	.0691	U 0.40	mg/L	.5	0.50	.2	0.20		
SP0041-6DLB	SAMP	SW846 9056A	Chloride	5	37.8645	38	mg/L	2	10.	.5	2.5		
WG312907-1	MBLANK	SW846 9056A	Bromide	1	.0052	U 0.40	mg/L	.5	0.50	.2	0.20		
WG312907-1	MBLANK	SW846 9056A	Chloride	1	.1493	U 1.0	mg/L	2	2.0	.5	0.50		
WG312907-2	LCS	SW846 9056A	Bromide	1	3.4271	3.43	mg/L	.5	0.50	.2	0.20		91.5
WG312907-2	LCS	SW846 9056A	Chloride	1	3.5618	3.56	mg/L	2	2.0	.5	0.50		94.9
WG312907-3	DUP	SW846 9056A	Bromide	1	.0712	U 0.40	mg/L	.5	0.50	.2	0.20	NC	
WG312907-4	MS	SW846 9056A	Bromide	1	3.4926	3.5	mg/L	.5	0.50	.2	0.20		93.1

Comments:

WG312907-1	SP0041-1
WG312907-2	SP0041-1
WG312907-3	SP0041-6
WG312907-4	SP0041-6

Entered by: SS Date: 1/19/22 Accepted by: Date: 01/19/22

Katahdin Analytical Services 5000046

IC STANDARDS PREPARATION

Fill sheet in completely, file with each batch of samples analyzed.

MIX ID: W20608	Expiration Date:1/17/22	ICAL Date: 01/04/22

LYTE	INITIAL AMOUNT (mL)	OF	STOCK CONC. (mg/L)	TO	FINAL VOLUME(mL)	=	FINAL CONC.(mg/L)
Cl	2.0	OF	1000	TO	100	=	20
(as N)	0.8	OF	1000			=	8
(as N)	0.8	OF	1000			=	8
Br	4.0	OF	1000			=	40
O4	4.0	OF	1000			=	40
F	1.0	OF	1000			=	10
(as P)	1	OF	1000			=	10

WORKING STANDARDS Standards prepared on each day of use

INITIAL AMOUNT (mL)	OF	Final Volume (mL)	FINAL CONC. (mg/L)							STD ID*
			Cl	NO2	NO3	Br	SO4	PO4	F	
1	ICAL	1	20	8	8	40	40	10	10	IC7-010422
0.5	IC7	1	10	4	4	20	20	5	5	IC6-010422
0.25	IC7	1	5	2	2	10	10	2.5	2.5	IC5-010422
0.25	IC6	1	2.5	1	1	5	5	1.25	1.25	IC4-010422
0.1	IC6	1	1	0.4	0.4	2	2	0.5	.5	IC3-010422
0.1	IC3	1	0.1	0.04	0.04	0.2	0.2	0.05	.05	IC2-010422
0.5	IC7	1	10	4	4	20	20	5	5	CCV-011422

*** STD ID is prefix followed by the date of preparation (ie. IC6-020216)**

MATRIX SPIKE MIX ID: W20612	Expiration Date:01/18/22

7.5 mL of High Purity multi-element IC standard solution "A" and 7.5 mL of High Purity multi-element standard solution "B" diluted to 100 mL. For MS, add 0.05 mL of mix to 1.0 mL of sample. For LCS, add 0.05 mL of mix to 1.0 mL of DI water.

Final Concentrations (mg/L):

	NO2 (as N)	NO3 (as N)	Br	SO4	PO4 (as P)	F	STD ID*
5	1.14	0.845	3.75	3.75	1.22	3.75	IC-LCS-011422

*** STD ID is prefix followed by the date of preparation (ie. IC-LCS-020216)**

Comments:
2x dil = 0.5mL 1x→1.0mL
20x dil = 0.05mL 1x→1.0mL

Pipettes: W3, W5
5x dil = 0.2mL 1x→1.0mL
50x dil = 0.02mL 1x→1.0mL

10x dil = 0.1mL 1x→1.0mL
100x dil = 0.1mL 10x→1.0mL

Katahdin Analytical Services **ION CHROMATOGRAPHY RUNLOG** Dionex ICS-2100 (Instrument IC-3)

Analysis Date: 01/14/22	**Analytical Column S/N:** 20423034	**Calibration Date:** 01/04/22
Analysis Sequence: 011422A	**Guard Column S/N:** 20727027	**Calibration Sequence:** 010422ACal
Analyst: SS	**Suppressor S/N:** 18082509	☐ If box at left is checked, continued from previous page. Refer to previous page for header information.

Reporting / Reanalysis Codes: ✓ Report without manipulation; S Report, peak automatically reintegrated with SmartPeak; M Report, peak manually integrated; A Report, peak manually assigned; R Do not report, reanalyze sample

Method Codes: E EPA 300.0; SW SW846 9056A

Katahdin Sample Number	Dilution Factor	Method Code	Report or Reanalyze (enter appropriate code): F	Cl	NO_2	SO_4	Br	NO_3	PO_4	Comments
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		
LCS			✓	✓	✓		✓	✓		
LCS			✓	✓	✓		✓	✓		
SO 8886-1	2	HW		✓						
SP0006-1	2	HW		✓						
SP0012-1	2	HW		✓						
SO 8914-1	2	S		✓						
MS	2	|		✓						
MSD	2	|		✓						
8914-3	2	|		✓						
-5	2	|		✓						
-7	2	|		✓						
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		
8914-9	2	S		✓						
-11	2	|		✓						
8943-2	2	S		✓						
-4	2	|		✓						
-6	2	|		✓						
-8	2	|		✓						
LCS						✓				

Hw: WG312904 → RS64733
S: WG312905 → RS64734
S: WG312907 → RS64735

Reviewed by: _____ QAWL1045 - 000352

Review Date: 01/19/22

Katahdin Analytical Services 5000048

Katahdin Analytical Services **ION CHROMATOGRAPHY RUNLOG** Dionex ICS-2100 (Instrument IC-3)

Analysis Date:	**Analytical Column S/N:**	**Calibration Date:**
Analysis Sequence:	**Guard Column S/N:**	**Calibration Sequence:**
Analyst:	**Suppressor S/N:**	☑ If box at left is checked, continued from previous page. Refer to previous page for header information.

Reporting / Reanalysis Codes: ✓ Report without manipulation; S Report, peak automatically reintegrated with SmartPeak; M Report, peak manually integrated; A Report, peak manually assigned; R Do not report, reanalyze sample

Method Codes: E EPA 300.0; SW SW846 9056A

Katahdin Sample Number	Dilution Factor	Method Code	Report or Reanalyze (enter appropriate code): F	Cl	NO_2	SO_4	Br	NO_3	PO_4	Comments
LCS						✓				
SP0041-1	1	S					✓			
-2	1	1					✓			
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		
SP0041-3	1	S					✓			
-4	1	|					✓			
-5	1	|					✓			
-6	1	|					✓			
+ Dup	1	|					✓			
+ MS	1	⊥					✓			
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		
SP0041-1	10	S		✓						
-2	10	|		✓						
-3	10	|		✓						
-4	5	|		✓						
-5	5	|		✓						
-6	5	⊥		✓						
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		

SS 1/18/22

Reviewed by: _____ Review Date: 01/19/22

QAWL1045 - 000352

Katahdin Analytical Services 5000049

Sequence Overview

Sequence Details

Name:	**011422A REPROC**	*Created On:*	**10/Feb/16 13:48:22**
Directory:	**Instrument Data\ICS-2100\2022\01-JAN**	*Created By:*	**Katahdin Analytical**
Data Vault:	**ChromeleonLocal**	*Updated On:*	**18/Jan/22 15:05:19**
No. of Injections:	**43**	*Updated By:*	**Katahdin Analytical**

Injection Details

No.	Injection Name	Position	Type	Level	Inject Time	Status
1	CCV	1	Check Standard	06	14/Jan/22 12:13:57	Finished
2	CCB	2	Unknown		14/Jan/22 12:34:39	Finished
3	LCS	3	Check Standard	07	14/Jan/22 12:55:28	Finished
4	LCS	4	Check Standard	07	14/Jan/22 13:16:16	Finished
5	SO8886-1	5	Unknown		14/Jan/22 13:37:04	Finished
6	SP0006-1	6	Unknown		14/Jan/22 13:57:52	Finished
7	SP0012-1	7	Unknown		14/Jan/22 14:18:39	Finished
8	SO8914-1	8	Unknown		14/Jan/22 14:39:48	Finished
9	SO8914-1 MS	9	Unknown		14/Jan/22 15:00:36	Finished
10	SO8914-1 MSD	10	Unknown		14/Jan/22 15:21:23	Finished
11	SO8914-3	11	Unknown		14/Jan/22 15:42:11	Finished
12	SO8914-5	12	Unknown		14/Jan/22 16:02:58	Finished
13	SO8914-7	13	Unknown		14/Jan/22 16:23:46	Finished
14	CCV	14	Check Standard	06	14/Jan/22 16:44:34	Finished
15	CCB	15	Unknown		14/Jan/22 17:05:21	Finished
16	SO8914-9	16	Unknown		14/Jan/22 17:26:09	Finished
17	SO8914-11	17	Unknown		14/Jan/22 17:46:57	Finished
18	SO8943-2	18	Unknown		14/Jan/22 18:07:45	Finished
19	SO8943-4	19	Unknown		14/Jan/22 18:28:33	Finished
20	SO8943-6	20	Unknown		14/Jan/22 18:49:21	Finished
21	SO8943-8	21	Unknown		14/Jan/22 19:10:08	Finished
22	LCS	22	Check Standard	07	14/Jan/22 19:30:57	Finished
23	LCS	23	Check Standard	07	14/Jan/22 19:51:45	Finished
24	SP0041-1	24	Unknown		14/Jan/22 20:12:33	Finished
25	SP0041-2	25	Unknown		14/Jan/22 20:33:21	Finished
26	CCV	26	Check Standard	06	14/Jan/22 20:54:08	Finished
27	CCB	27	Unknown		14/Jan/22 21:14:56	Finished
28	SP0041-3	28	Unknown		14/Jan/22 21:35:44	Finished
29	SP0041-4	29	Unknown		14/Jan/22 21:56:32	Finished
30	SP0041-5	30	Unknown		14/Jan/22 22:17:19	Finished
31	SP0041-6	31	Unknown		14/Jan/22 22:38:07	Finished
32	SP0041-6 DUP	32	Unknown		14/Jan/22 22:58:55	Finished
33	SP0041-6 MS	33	Unknown		14/Jan/22 23:19:43	Finished
34	CCV	34	Check Standard	06	14/Jan/22 23:40:31	Finished
35	CCB	35	Unknown		15/Jan/22 00:01:18	Finished
36	SP0041-1	36	Unknown		15/Jan/22 00:22:06	Finished
37	SP0041-2	37	Unknown		15/Jan/22 00:42:54	Finished
38	SP0041-3	38	Unknown		15/Jan/22 01:03:42	Finished
39	SP0041-4	39	Unknown		15/Jan/22 01:24:30	Finished
40	SP0041-5	40	Unknown		15/Jan/22 01:45:17	Finished
41	SP0041-6	41	Unknown		15/Jan/22 02:06:06	Finished
42	CCV	42	Check Standard	06	15/Jan/22 02:26:53	Finished

43	CCB	43	Unknown		15/Jan/22 02:47:41	Finished

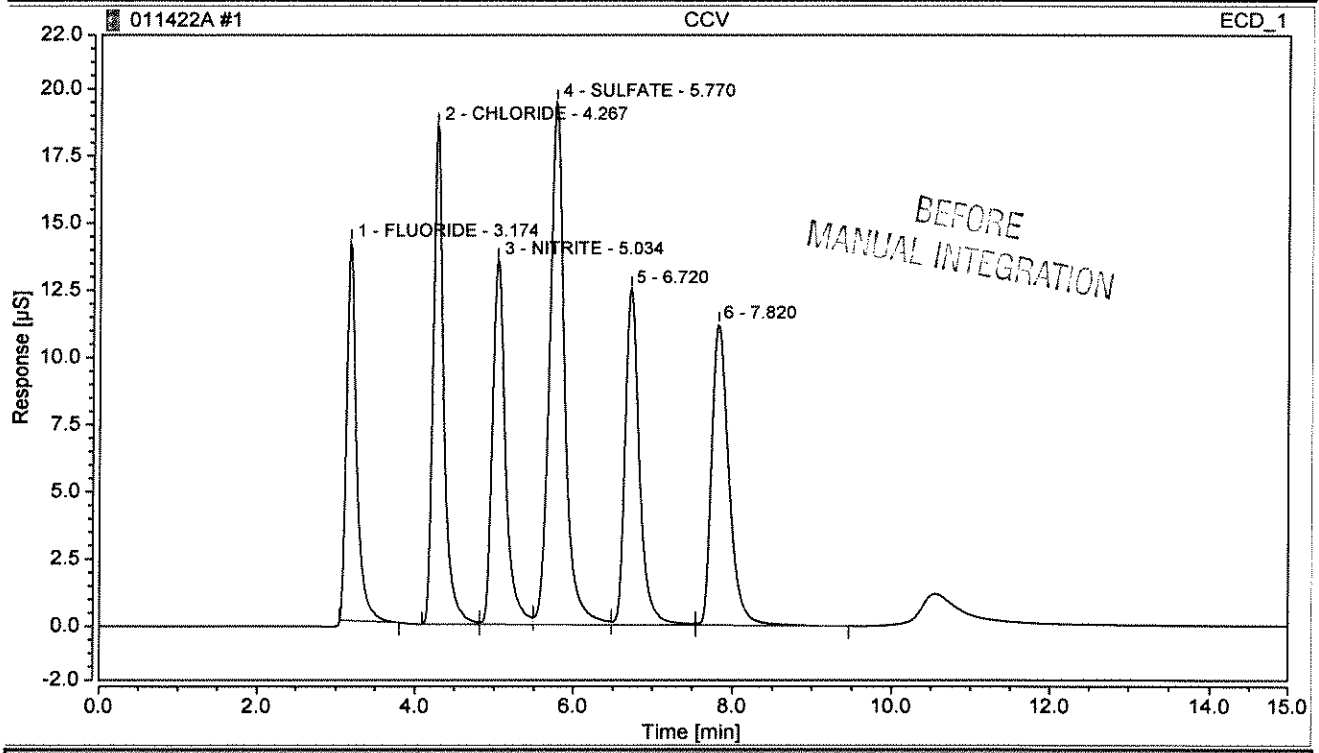


Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.98**
Vial Number:	**1**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**14/Jan/22 12:13**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

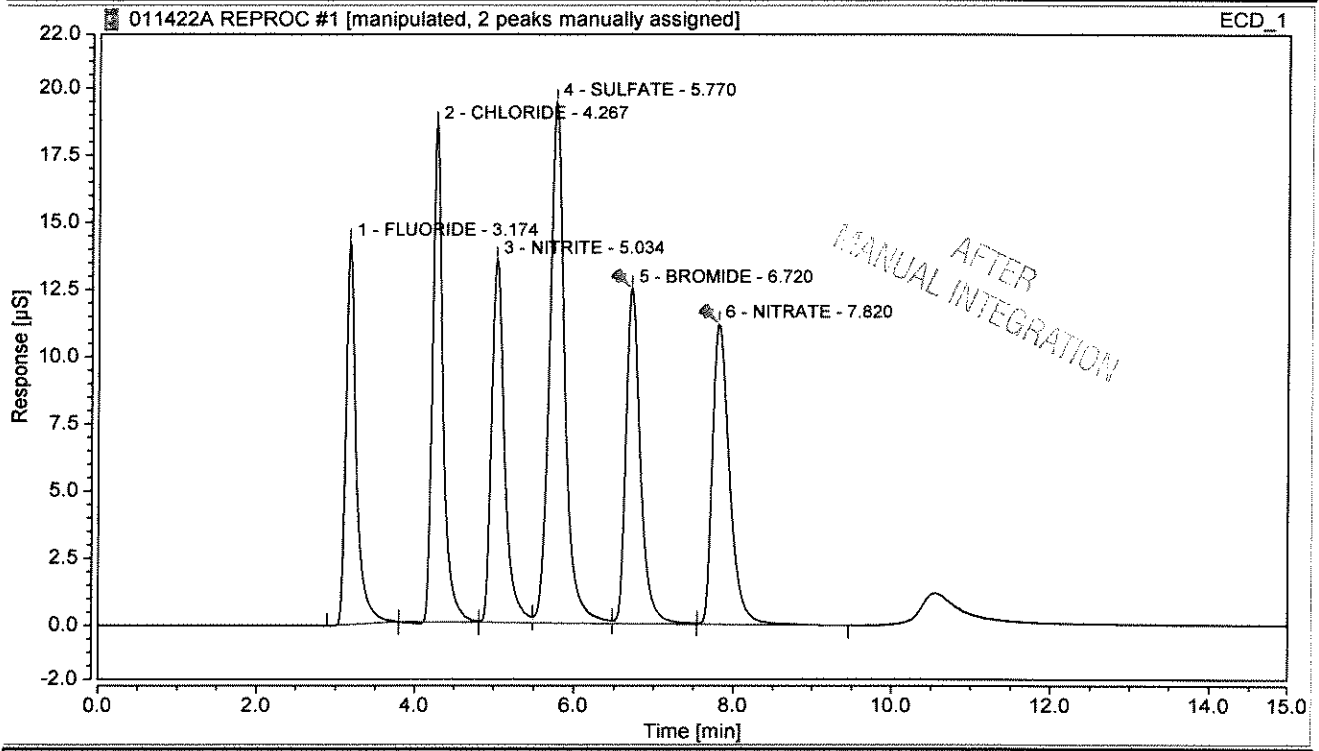
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.174	2.125	14.092	12.23	15.76	4.5057	-9.8868
2	CHLORIDE	4.267	2.889	18.576	16.62	20.78	10.2397	2.3966
3	NITRITE	5.034	2.562	13.560	14.74	15.17	4.0633	1.5814
4	SULFATE	5.770	4.336	19.448	24.95	21.75	19.5122	-2.4392
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.912**	**65.675**	**68.55**	**73.46**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.98**
Vial Number:	**1**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**14/Jan/22 12:13**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

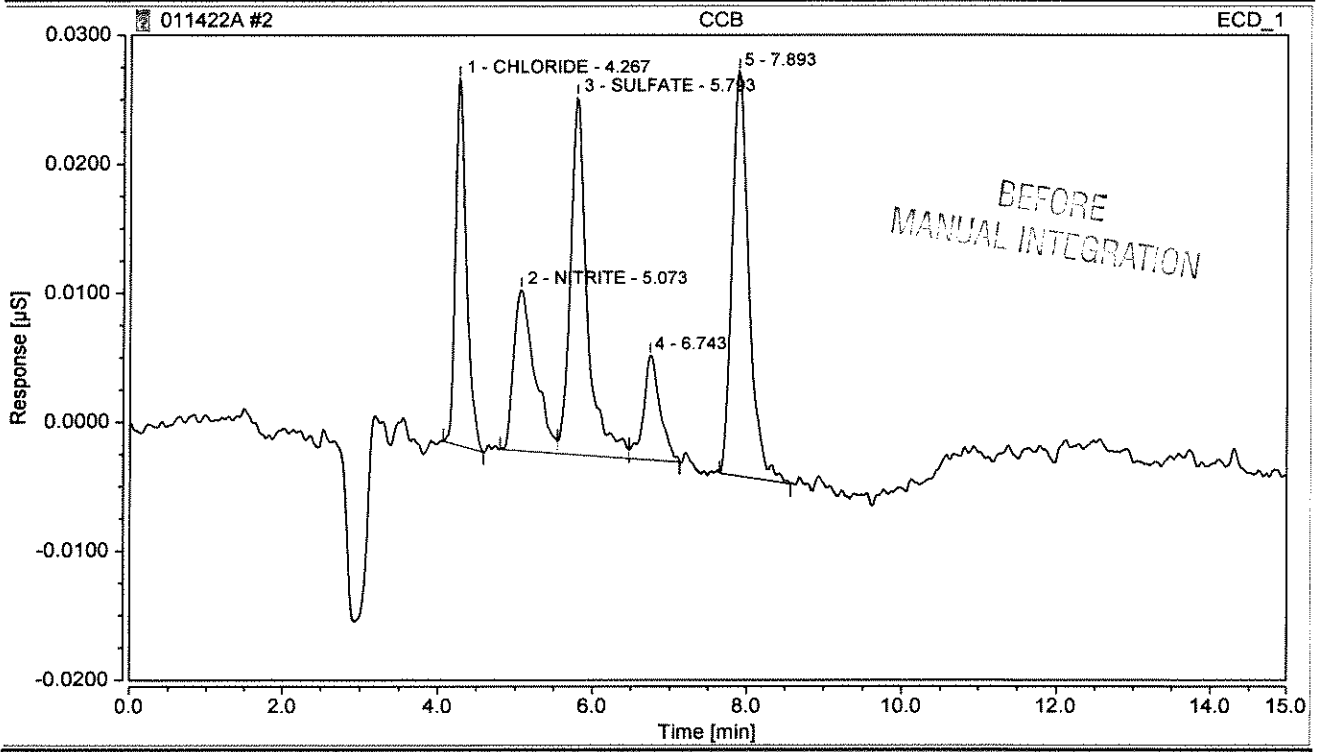
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.174	2.205	14.264	12.74	15.96	4.6740	-6.5197
2	CHLORIDE	4.267	2.841	18.523	16.42	20.72	10.0712	0.7120
3	NITRITE	5.034	2.532	13.515	14.64	15.12	4.0167	0.4175
4	SULFATE	5.770	4.301	19.411	24.86	21.71	19.3537	-3.2317
5	BROMIDE	6.720	2.629	12.480	15.20	13.96	21.3587	6.7936
6	NITRATE	7.820	2.791	11.199	16.13	12.53	3.7954	-5.1138
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**17.298**	**89.391**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.98**
Vial Number:	**2**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**14/Jan/22 12:34**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

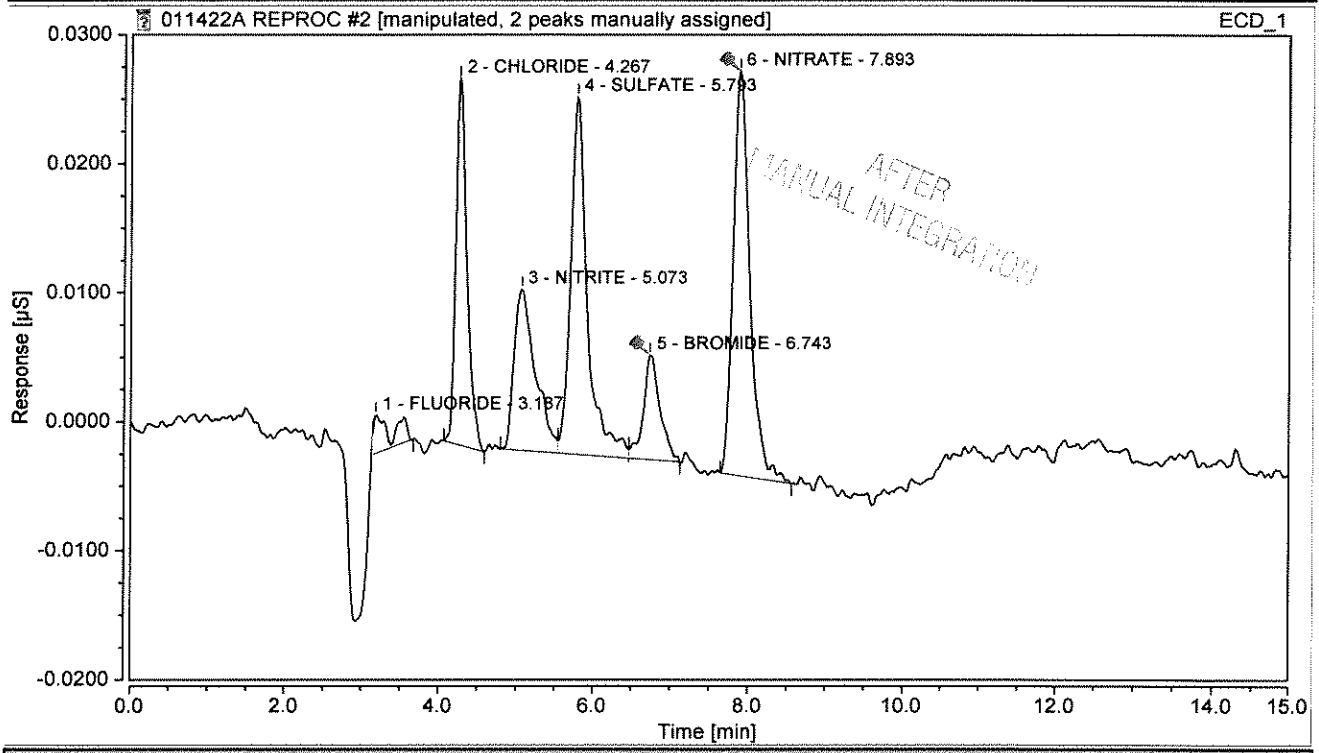
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	CHLORIDE	4.267	0.005	0.028	18.13	26.28	0.1565	n.a.
2	NITRITE	5.073	0.004	0.013	15.61	11.57	0.0063	n.a.
3	SULFATE	5.793	0.007	0.028	27.22	25.65	0.0313	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.016**	**0.069**	**60.96**	**63.50**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.98**
Vial Number:	**2**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**14/Jan/22 12:34**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

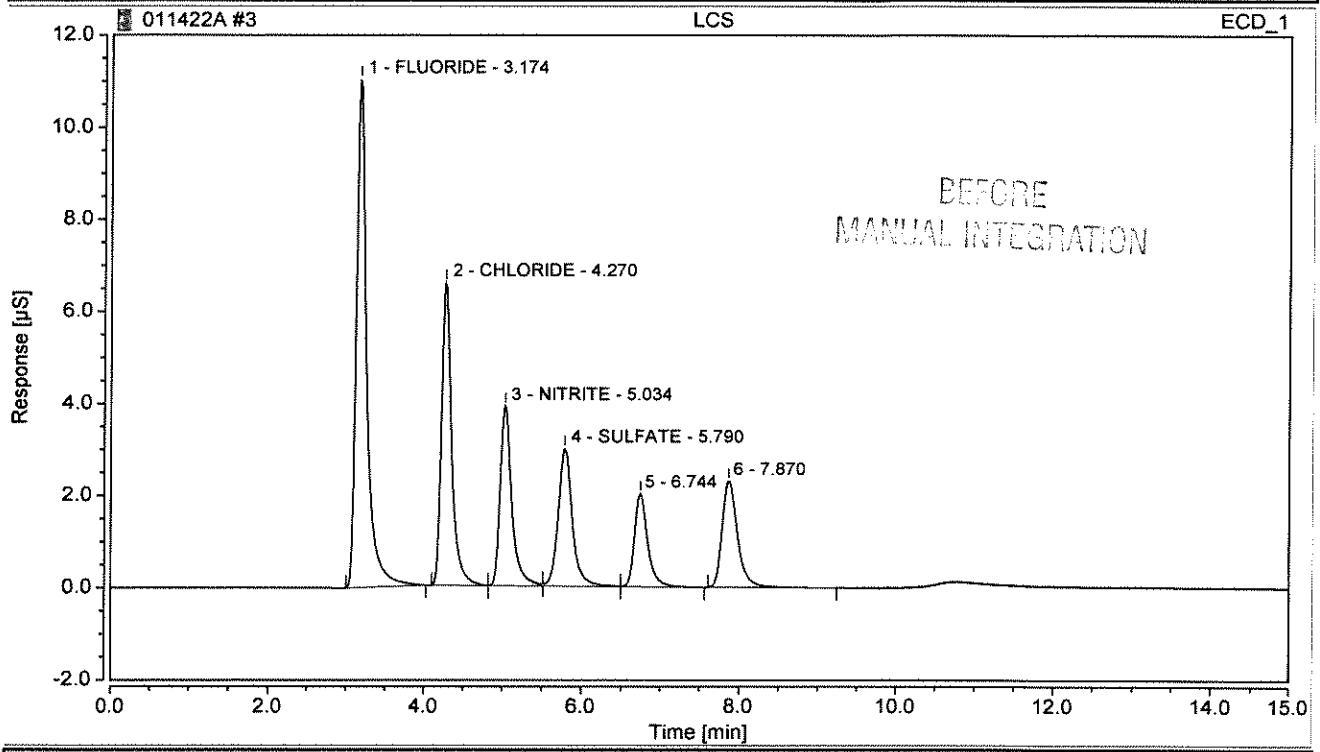
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.187	0.001	0.003	2.94	2.68	0.0016	n.a.
2	CHLORIDE	4.267	0.005	0.028	17.60	25.58	0.1565	n.a.
3	NITRITE	5.073	0.004	0.013	15.15	11.26	0.0063	n.a.
4	SULFATE	5.793	0.007	0.028	26.42	24.96	0.0313	n.a.
5	BROMIDE	6.743	0.002	0.008	7.68	7.29	0.0139	n.a.
6	NITRATE	7.893	0.008	0.031	30.21	28.23	0.0974	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.026**	**0.111**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.99**
Vial Number:	**3**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**14/Jan/22 12:55**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

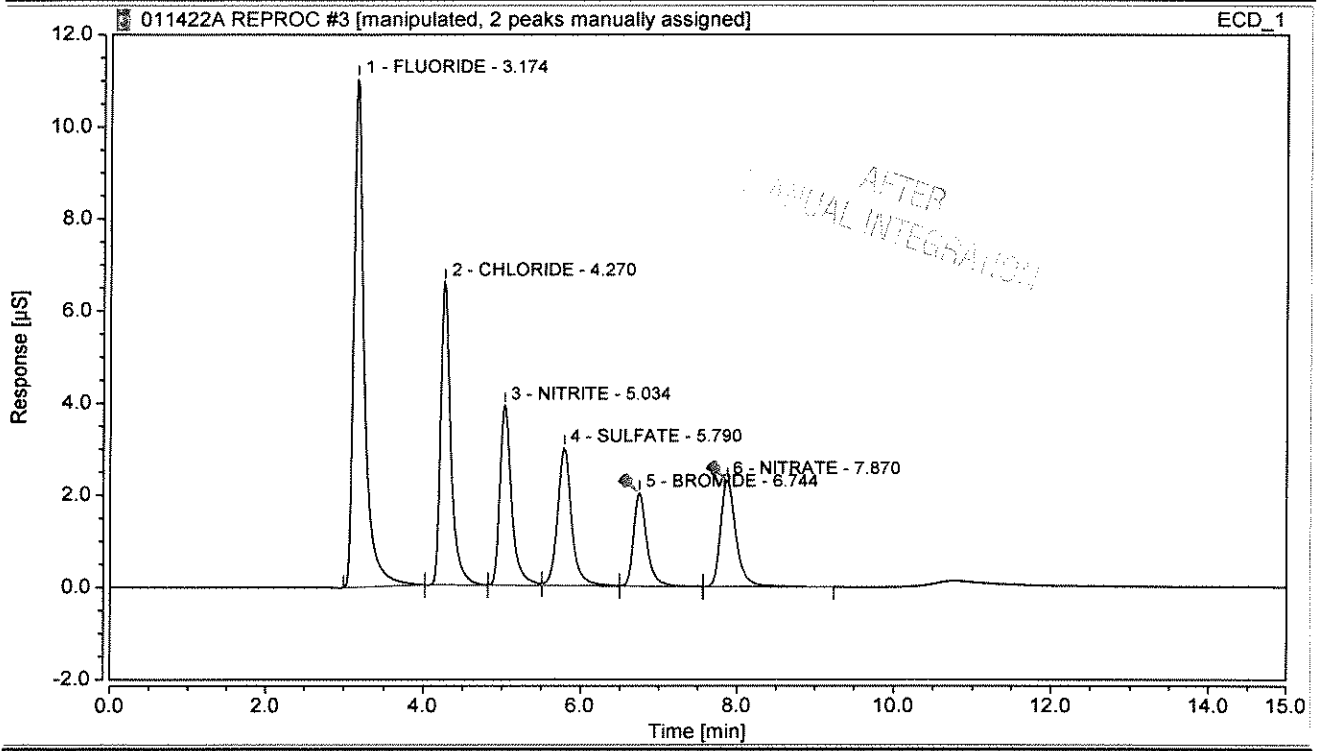
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.174	1.715	11.049	34.79	38.26	3.6353	-3.0587
2	CHLORIDE	4.270	0.989	6.588	20.07	22.81	3.5984	-4.0426
3	NITRITE	5.034	0.675	3.910	13.69	13.54	1.0703	-6.1156
4	SULFATE	5.790	0.627	2.995	12.73	10.37	2.8230	-24.7194
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**4.006**	**24.542**	**81.27**	**84.98**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.99**
Vial Number:	**3**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**14/Jan/22 12:55**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

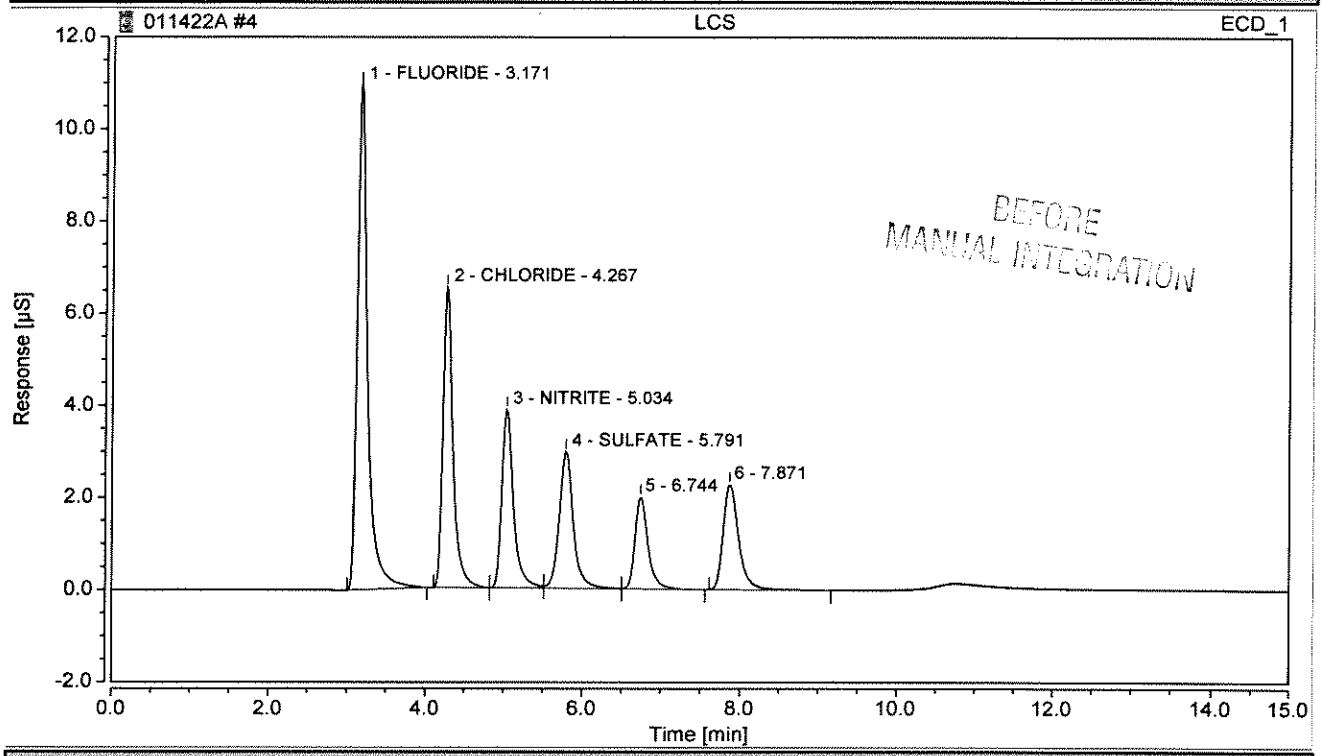
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.174	1.715	11.049	34.76	38.25	3.6353	-3.0587
2	CHLORIDE	4.270	0.989	6.589	20.06	22.81	3.5996	-4.0114
3	NITRITE	5.034	0.675	3.911	13.69	13.54	1.0709	-6.0586
4	SULFATE	5.790	0.628	2.996	12.72	10.37	2.8248	-24.6733
5	BROMIDE	6.744	0.398	2.027	8.06	7.02	3.4682	-7.5135
6	NITRATE	7.870	0.529	2.316	10.72	8.02	0.7895	-6.5623
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**4.933**	**28.887**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.98**
Vial Number:	**4**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**14/Jan/22 13:16**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

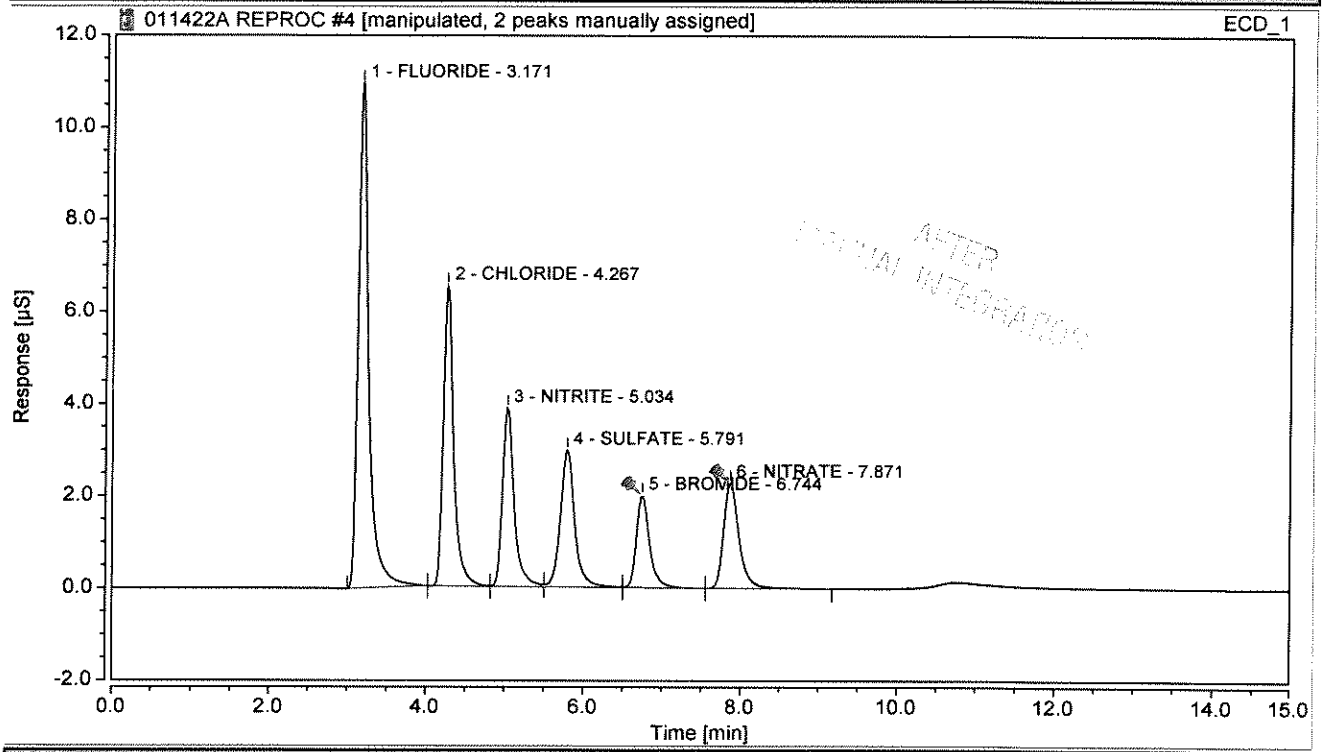
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.171	1.700	10.963	34.87	38.31	3.6041	-3.8899
2	CHLORIDE	4.267	0.976	6.526	20.01	22.80	3.5509	-5.3102
3	NITRITE	5.034	0.666	3.874	13.66	13.54	1.0560	-7.3655
4	SULFATE	5.791	0.623	2.970	12.78	10.38	2.8030	-25.2539
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**3.964**	**24.333**	**81.32**	**85.03**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**14.98**
Vial Number:	**4**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**14/Jan/22 13:16**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

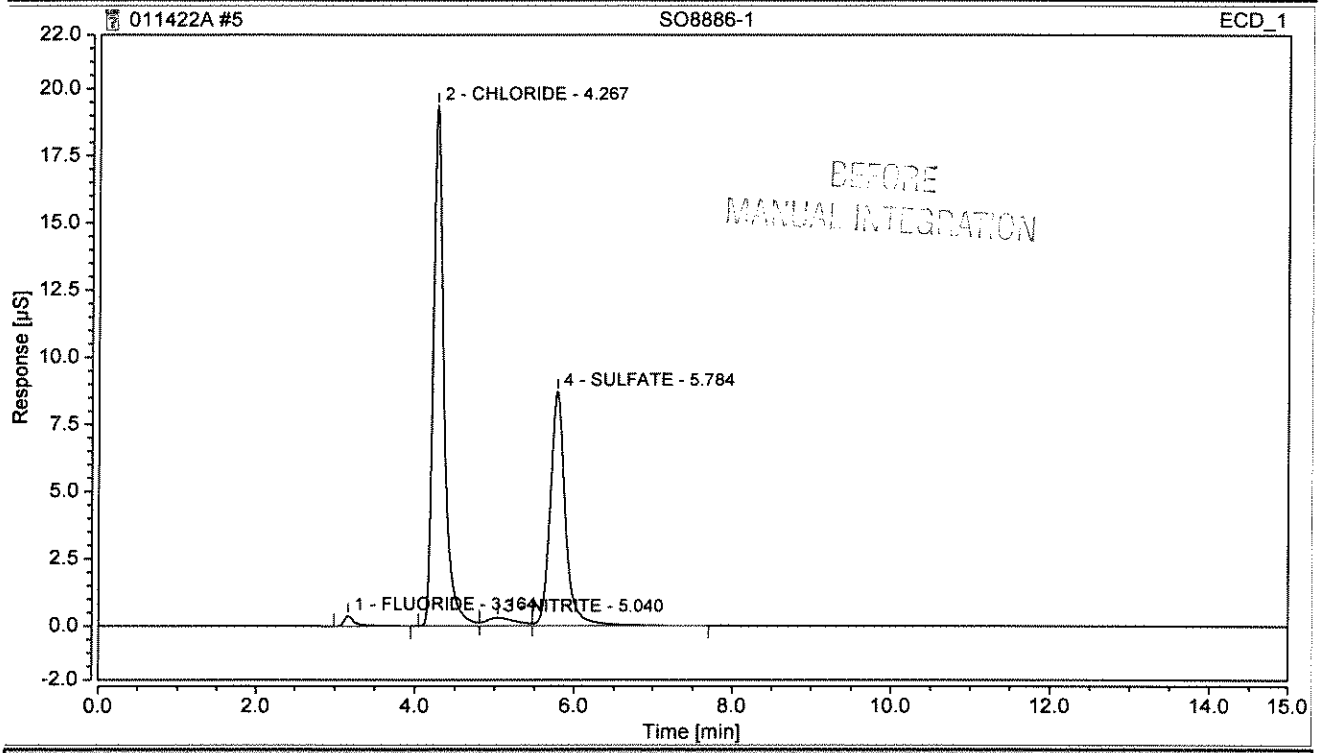
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.171	1.700	10.963	34.79	38.29	3.6041	-3.8899
2	CHLORIDE	4.267	0.979	6.531	20.03	22.81	3.5618	-5.0197
3	NITRITE	5.034	0.668	3.878	13.68	13.54	1.0598	-7.0322
4	SULFATE	5.791	0.625	2.973	12.79	10.38	2.8131	-24.9848
5	BROMIDE	6.744	0.393	2.002	8.03	6.99	3.4271	-8.6111
6	NITRATE	7.871	0.522	2.286	10.67	7.98	0.7799	-7.7058
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**4.886**	**28.633**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8886-1**	*Run Time (min):*	**14.98**
Vial Number:	**5**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 13:37**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

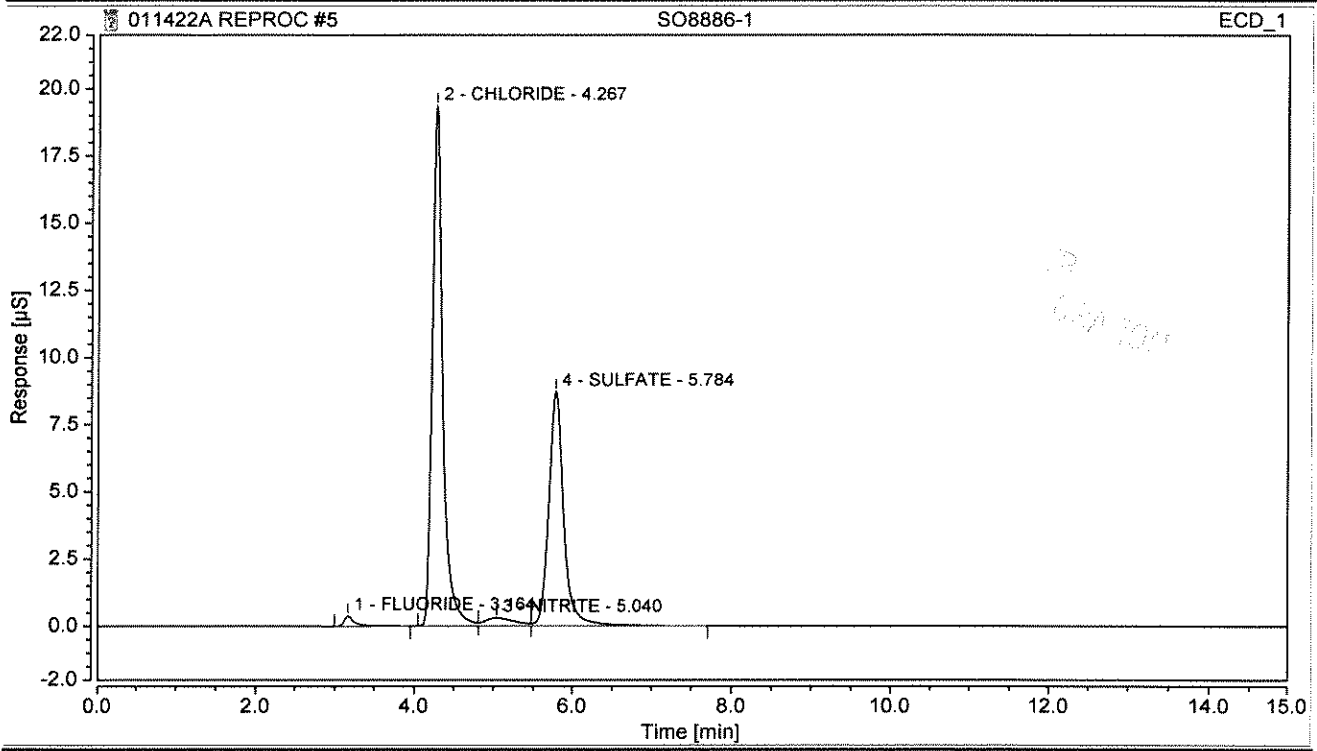
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	0.063	0.392	1.24	1.36	0.2689	n.a.
2	CHLORIDE	4.267	3.001	19.370	58.45	67.27	21.2660	n.a.
3	NITRITE	5.040	0.132	0.307	2.57	1.06	0.4183	n.a.
4	SULFATE	5.784	1.938	8.726	37.74	30.30	17.4419	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.134**	**28.794**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8886-1**	*Run Time (min):*	**14.98**
Vial Number:	**5**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 13:37**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

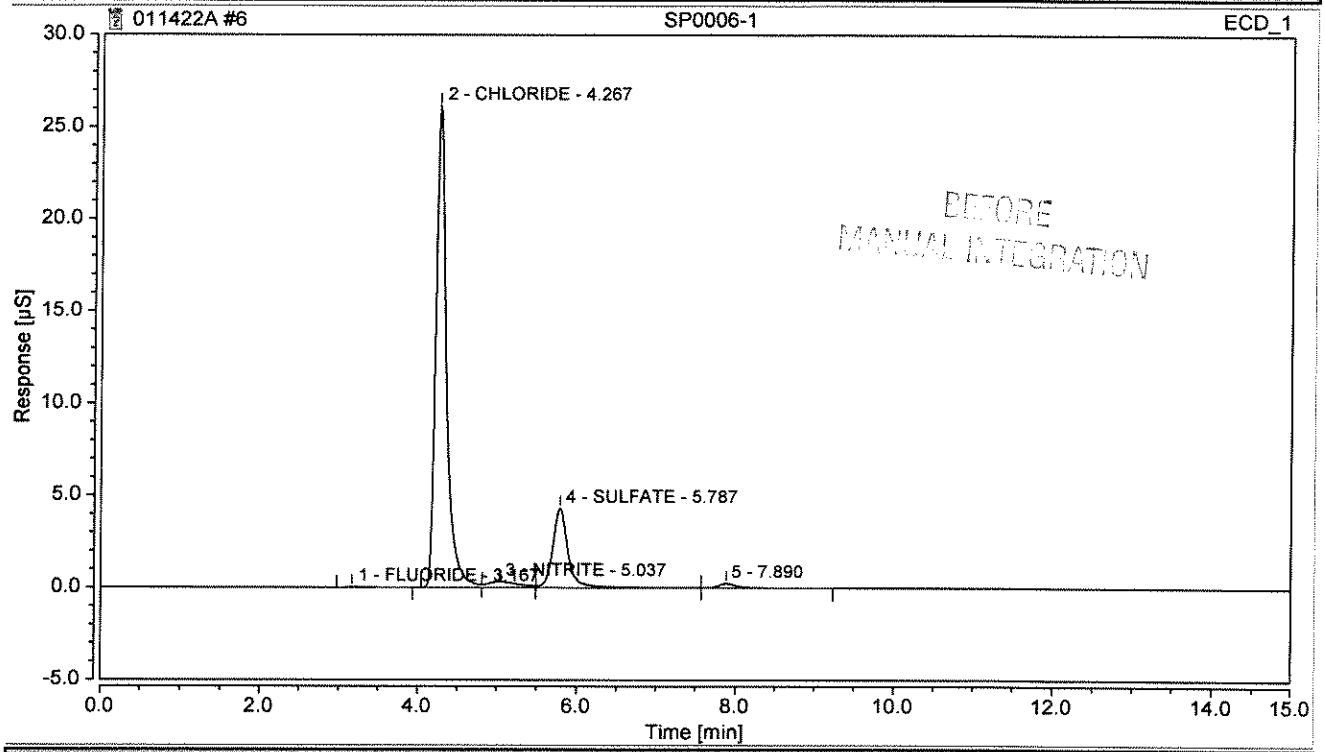
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	0.063	0.392	1.24	1.36	0.2689	n.a.
2	CHLORIDE	4.267	3.001	19.370	58.45	67.27	21.2660	n.a.
3	NITRITE	5.040	0.132	0.307	2.57	1.06	0.4183	n.a.
4	SULFATE	5.784	1.938	8.726	37.74	30.30	17.4419	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.134**	**28.794**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SP0006-1**	*Run Time (min):*	**14.99**
Vial Number:	**6**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 13:57**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

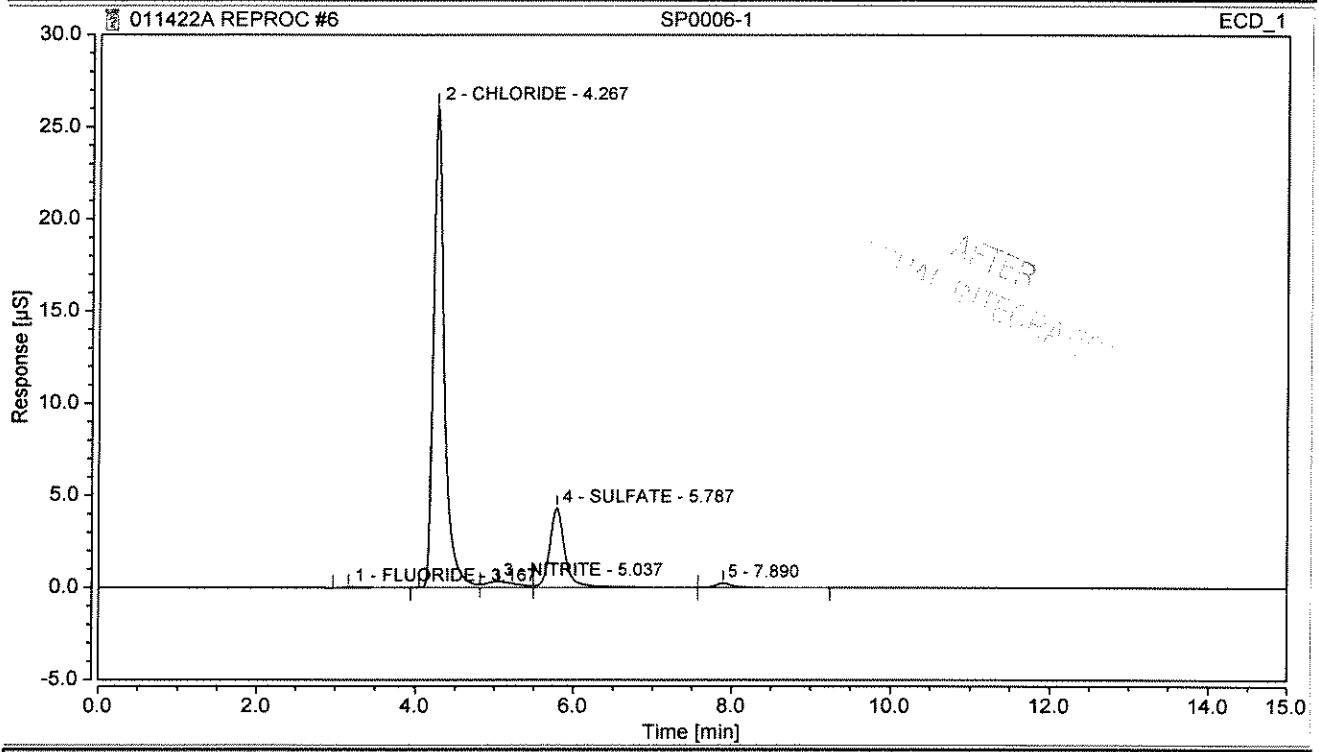
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	0.013	0.043	0.25	0.14	0.0563	n.a.
2	CHLORIDE	4.267	4.081	26.156	77.56	84.16	28.8176	n.a.
3	NITRITE	5.037	0.143	0.326	2.72	1.05	0.4534	n.a.
4	SULFATE	5.787	0.963	4.314	18.31	13.88	8.6692	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.201**	**30.839**	**98.84**	**99.23**		

Chromatogram and Results

Injection Details

Injection Name:	**SP0006-1**	*Run Time (min):*	**14.99**
Vial Number:	**6**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 13:57**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

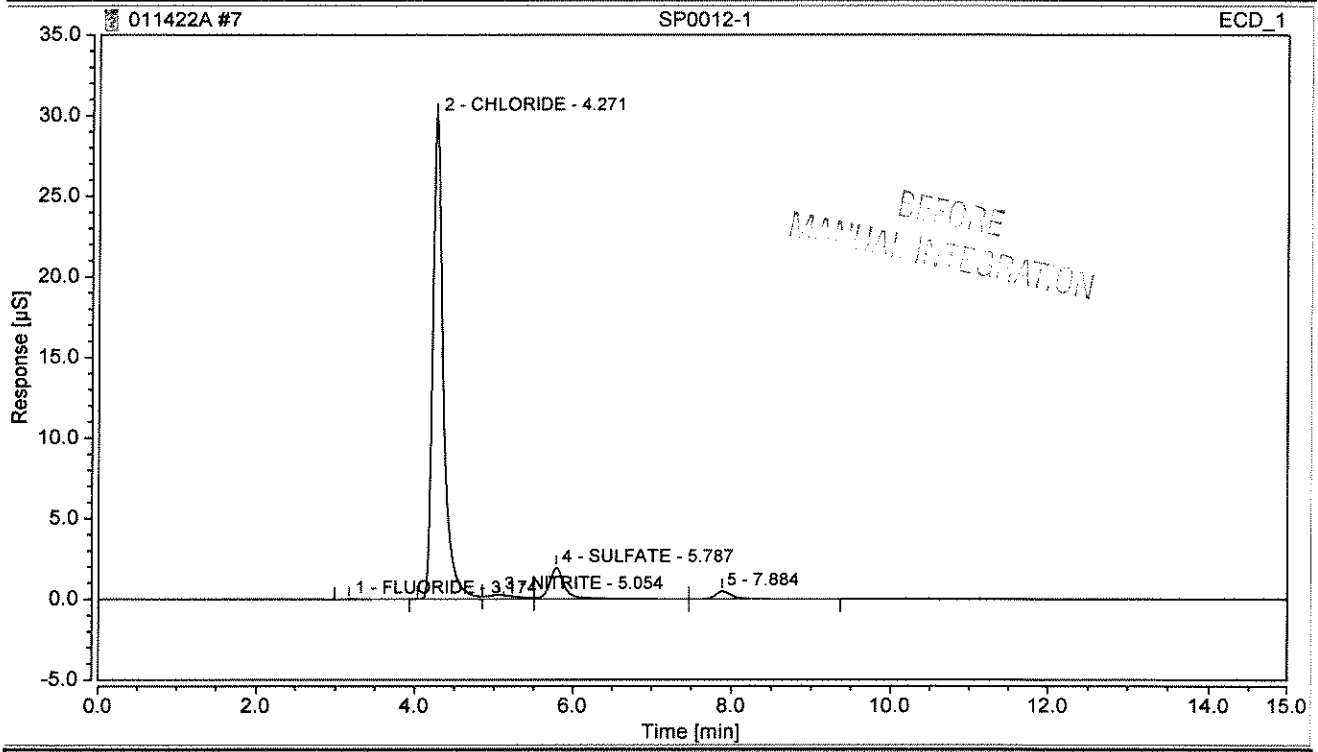
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	0.013	0.043	0.25	0.14	0.0563	n.a.
2	CHLORIDE	4.267	4.081	26.156	77.56	84.16	28.8176	n.a.
3	NITRITE	5.037	0.143	0.326	2.72	1.05	0.4534	n.a.
4	SULFATE	5.787	0.963	4.314	18.31	13.88	8.6692	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.201**	**30.839**	**98.84**	**99.23**		

Chromatogram and Results

Injection Details

Injection Name:	**SP0012-1**	*Run Time (min):*	**14.99**
Vial Number:	**7**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 14:18**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

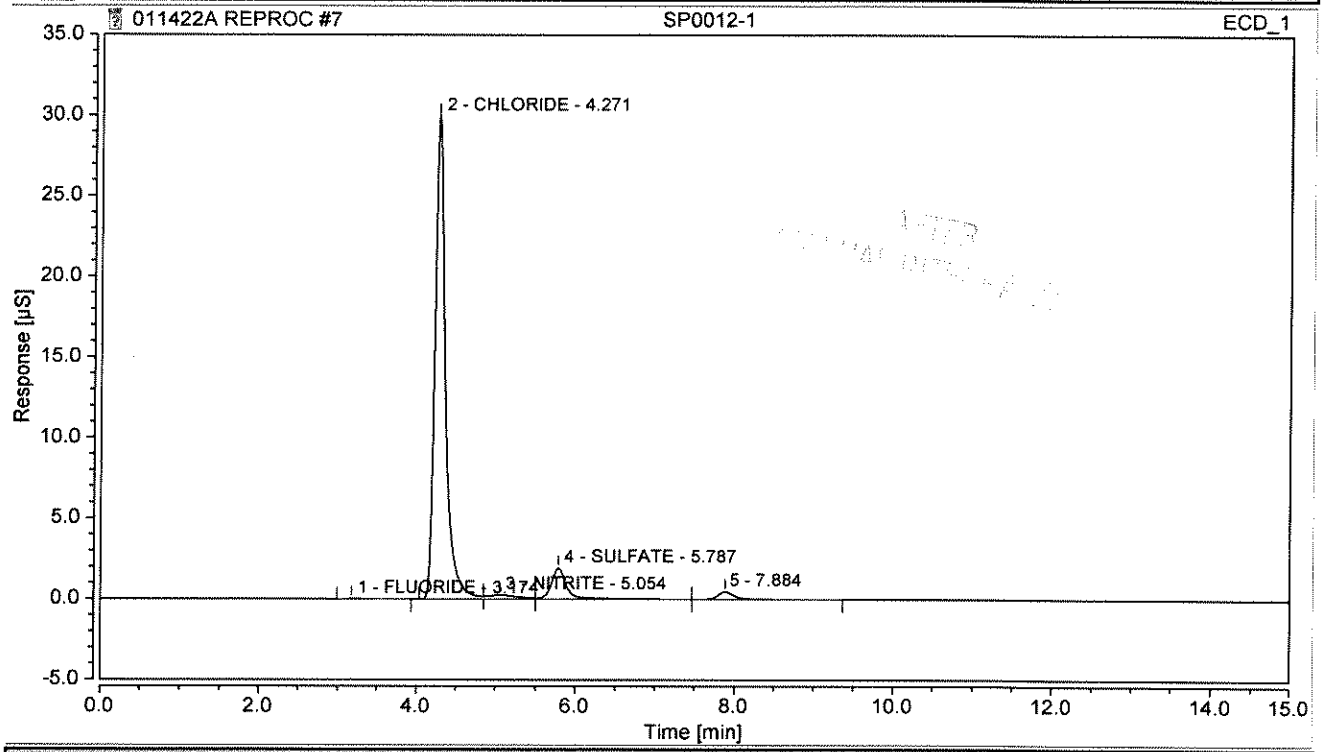
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.174	0.009	0.026	0.16	0.08	0.0367	n.a.
2	CHLORIDE	4.271	4.696	29.965	87.62	91.76	33.1155	n.a.
3	NITRITE	5.054	0.110	0.257	2.04	0.79	0.3475	n.a.
4	SULFATE	5.787	0.430	1.935	8.03	5.92	3.8718	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.244**	**32.182**	**97.86**	**98.55**		

Chromatogram and Results

Injection Details

Injection Name:	**SP0012-1**	*Run Time (min):*	**14.99**
Vial Number:	**7**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 14:18**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

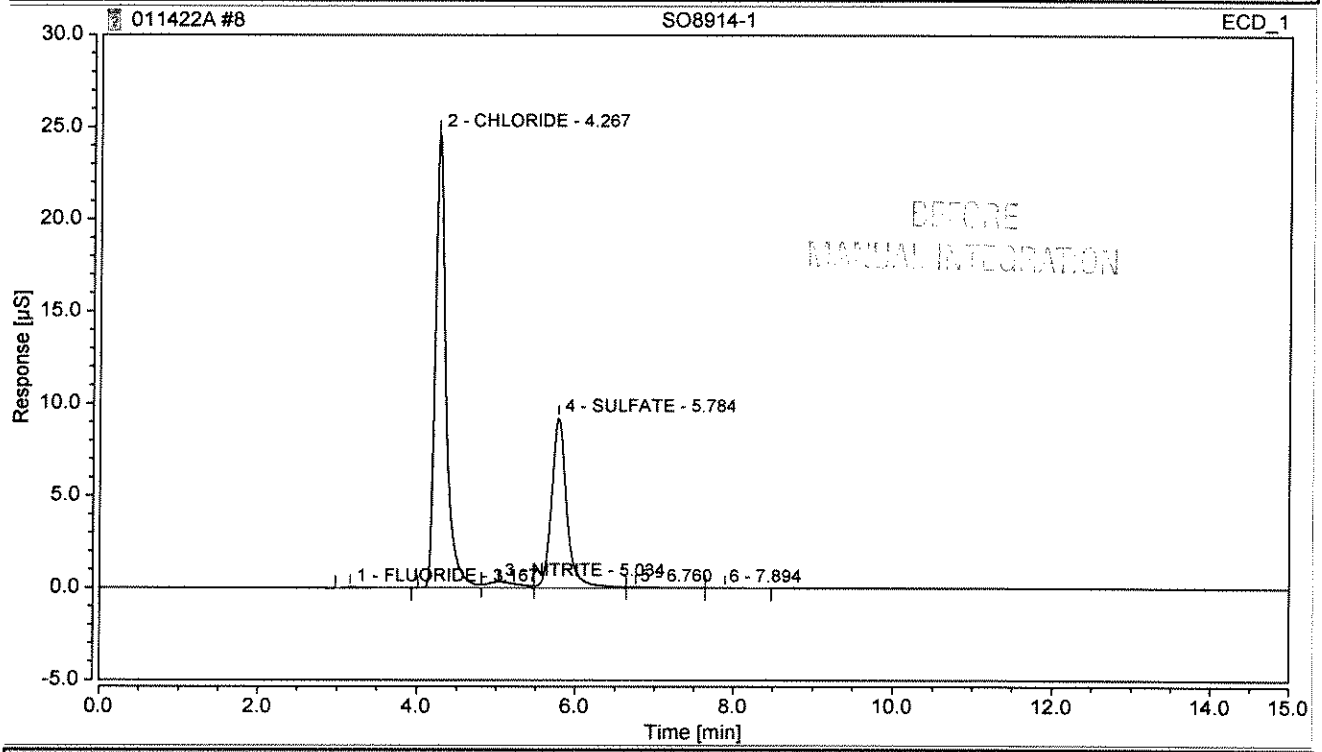
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.174	0.009	0.026	0.16	0.08	0.0367	n.a.
2	CHLORIDE	4.271	4.696	29.965	87.62	91.76	33.1155	n.a.
3	NITRITE	5.054	0.110	0.257	2.04	0.79	0.3475	n.a.
4	SULFATE	5.787	0.430	1.935	8.03	5.92	3.8718	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.244**	**32.182**	**97.86**	**98.55**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8914-1**	*Run Time (min):*	**14.99**
Vial Number:	**8**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 14:39**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

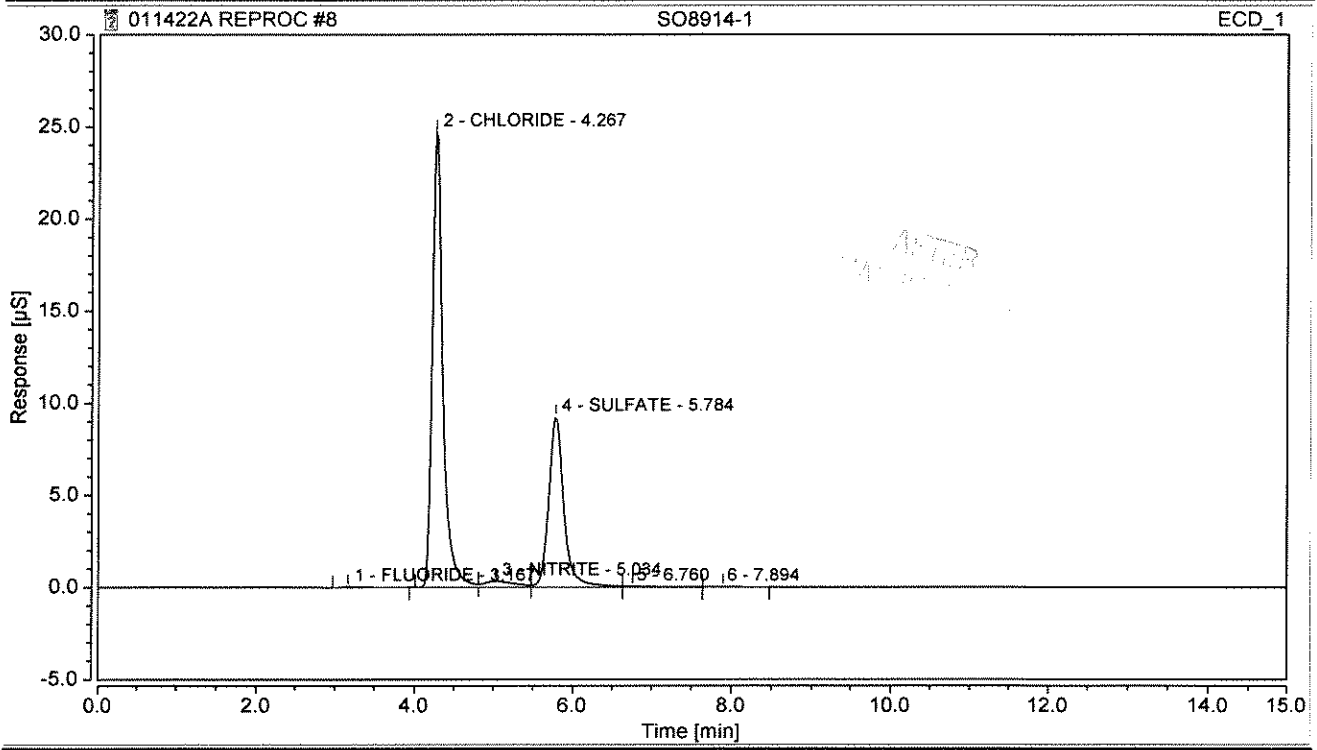
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	0.013	0.047	0.22	0.14	0.0564	n.a.
2	CHLORIDE	4.267	3.854	24.715	63.24	71.85	27.2314	n.a.
3	NITRITE	5.034	0.147	0.333	2.42	0.97	0.4670	n.a.
4	SULFATE	5.784	2.053	9.245	33.69	26.88	18.4810	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.068**	**34.339**	**99.56**	**99.83**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8914-1**	*Run Time (min):*	**14.99**
Vial Number:	**8**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 14:39**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

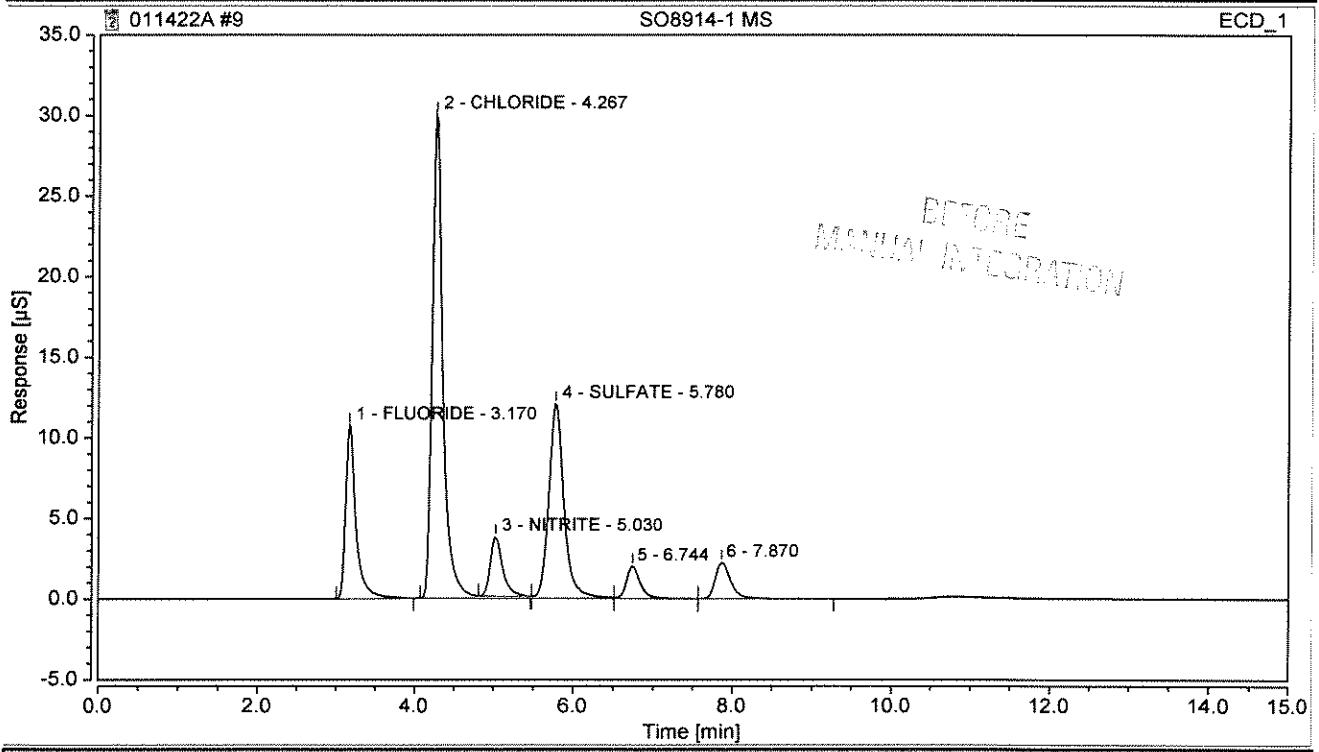
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	0.013	0.047	0.22	0.14	0.0564	n.a.
2	CHLORIDE	4.267	3.854	24.715	63.24	71.85	27.2314	n.a.
3	NITRITE	5.034	0.147	0.333	2.42	0.97	0.4670	n.a.
4	SULFATE	5.784	2.053	9.245	33.69	26.88	18.4810	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.068**	**34.339**	**99.56**	**99.83**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8914-1 MS**	*Run Time (min):*	**14.99**
Vial Number:	**9**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 15:00**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

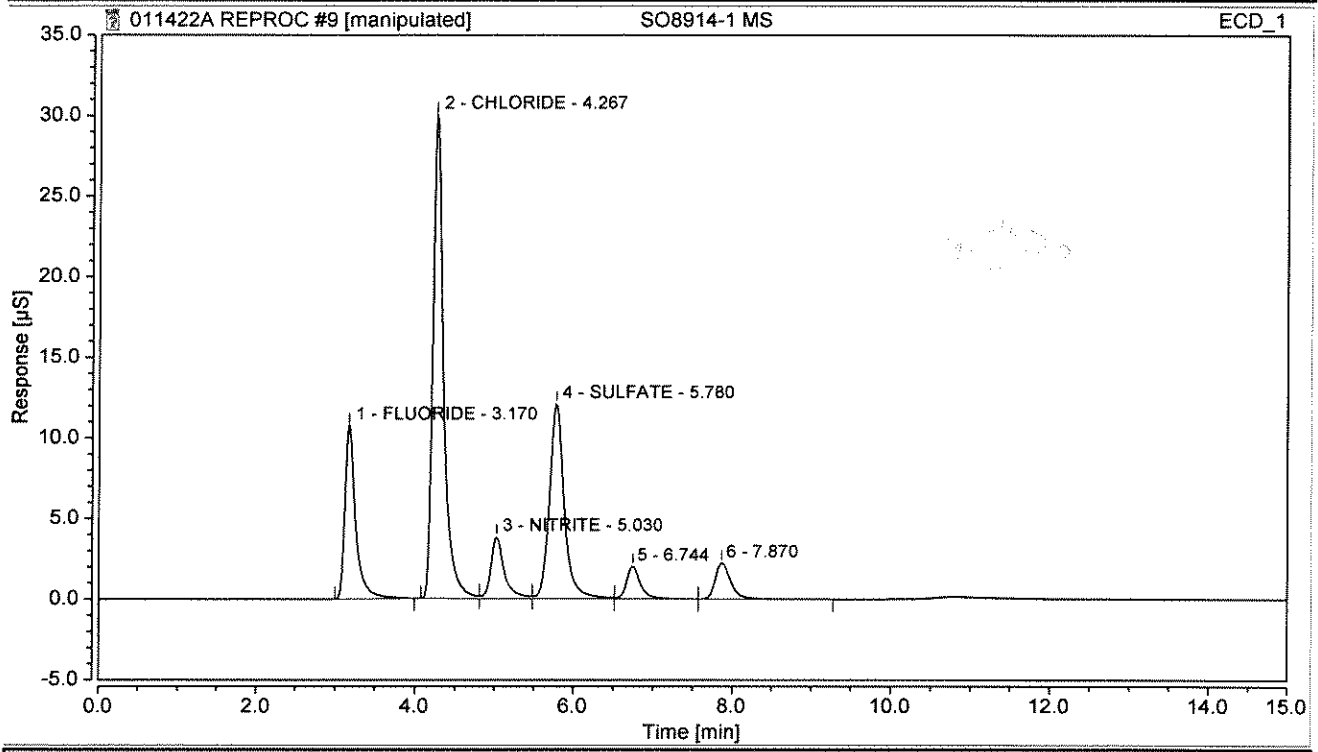
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.170	1.675	10.783	15.69	17.72	7.1014	n.a.
2	CHLORIDE	4.267	4.776	30.032	44.73	49.36	33.6746	n.a.
3	NITRITE	5.030	0.660	3.691	6.18	6.07	2.0941	n.a.
4	SULFATE	5.780	2.650	12.085	24.82	19.86	23.8537	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**9.761**	**56.591**	**91.42**	**93.02**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8914-1 MS**	*Run Time (min):*	**14.99**
Vial Number:	**9**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 15:00**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

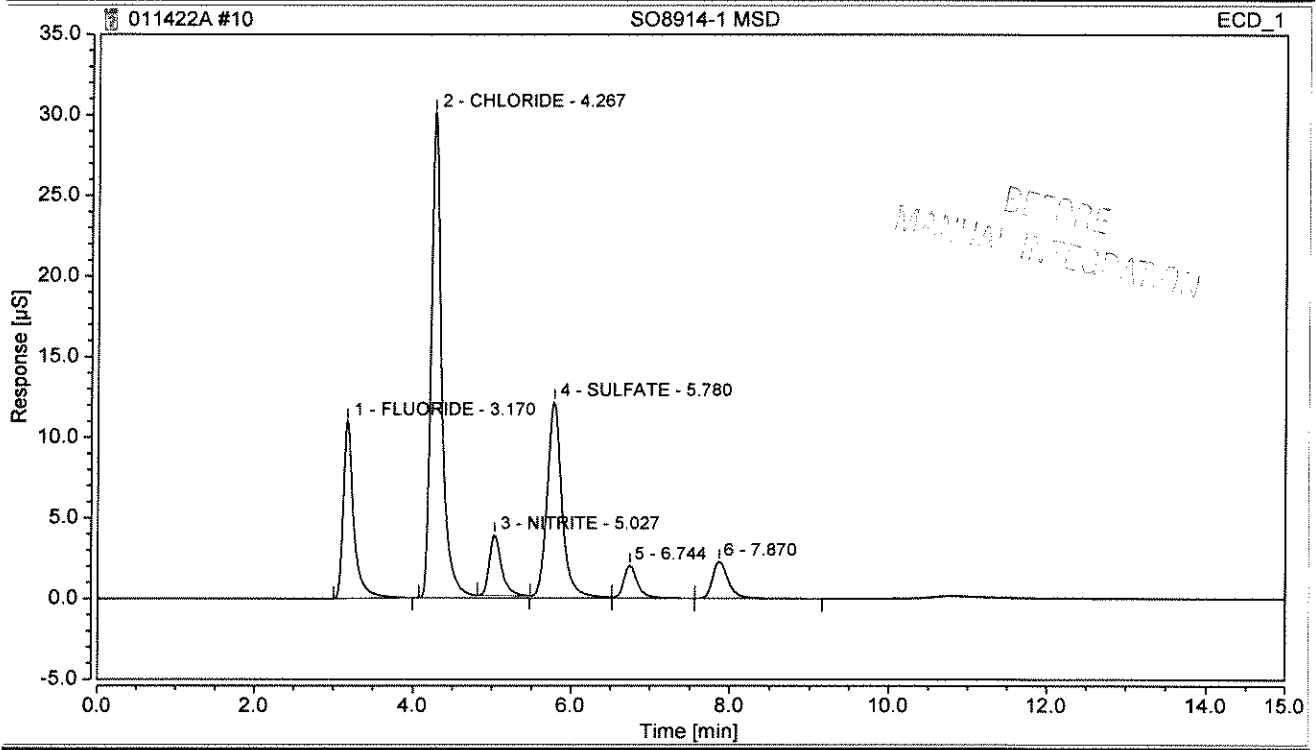
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.170	1.675	10.783	15.69	17.68	7.1014	n.a.
2	CHLORIDE	4.267	4.684	30.032	43.87	49.25	33.0331	n.a.
3	NITRITE	5.030	0.752	3.832	7.04	6.28	2.3851	n.a.
4	SULFATE	5.780	2.650	12.085	24.82	19.82	23.8537	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**9.761**	**56.733**	**91.42**	**93.03**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8914-1 MSD**	*Run Time (min):*	**14.99**
Vial Number:	**10**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 15:21**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

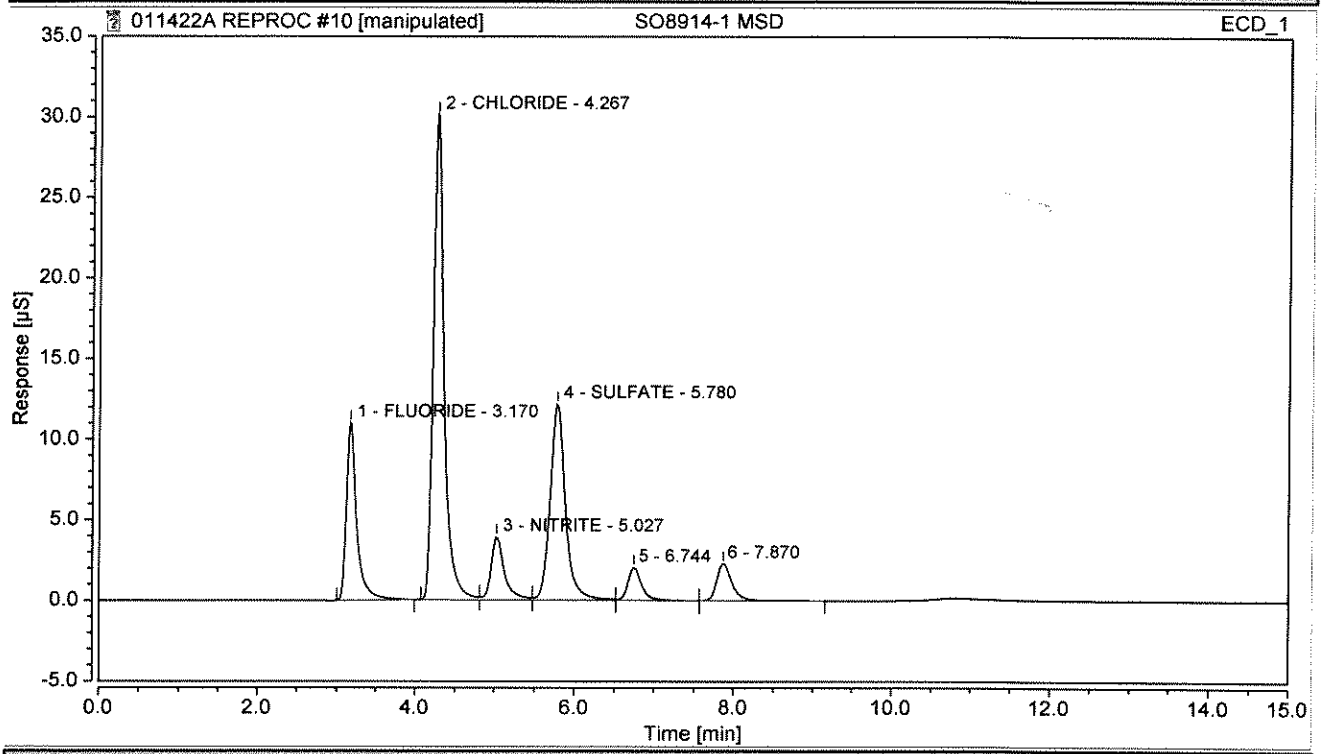
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.170	1.714	11.026	15.90	17.95	7.2682	n.a.
2	CHLORIDE	4.267	4.793	30.105	44.45	49.01	33.7960	n.a.
3	NITRITE	5.027	0.673	3.773	6.24	6.14	2.1338	n.a.
4	SULFATE	5.780	2.671	12.190	24.77	19.84	24.0382	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**9.851**	**57.093**	**91.35**	**92.94**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8914-1 MSD**	*Run Time (min):*	**14.99**
Vial Number:	**10**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 15:21**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

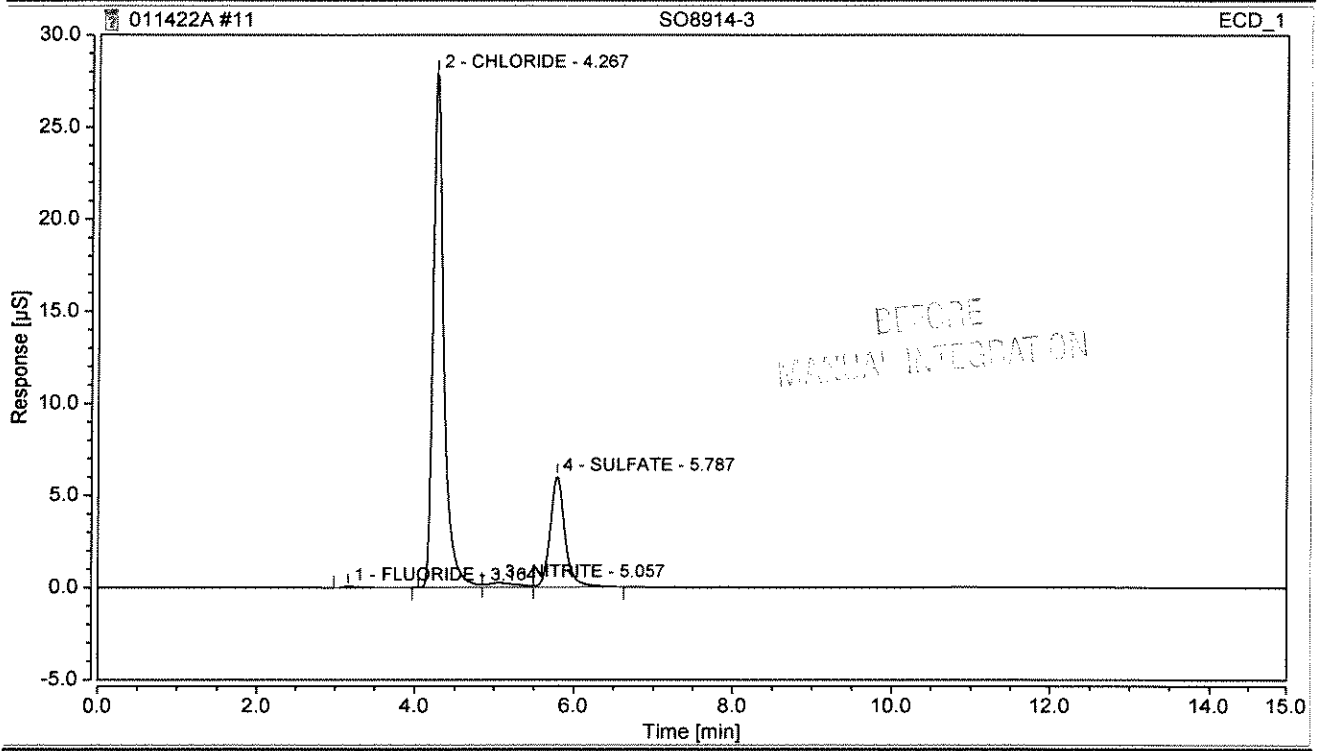
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.170	1.714	11.026	15.90	17.91	7.2682	n.a.
2	CHLORIDE	4.267	4.705	30.105	43.63	48.90	33.1782	n.a.
3	NITRITE	5.027	0.761	3.912	7.06	6.35	2.4141	n.a.
4	SULFATE	5.780	2.671	12.190	24.77	19.80	24.0382	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**9.851**	**57.232**	**91.35**	**92.96**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8914-3**	*Run Time (min):*	**14.98**
Vial Number:	**11**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 15:42**	*Sample Weight:*	**1.0**

Chromatogram



BEFORE MANUAL INTEGRATION

Integration Results

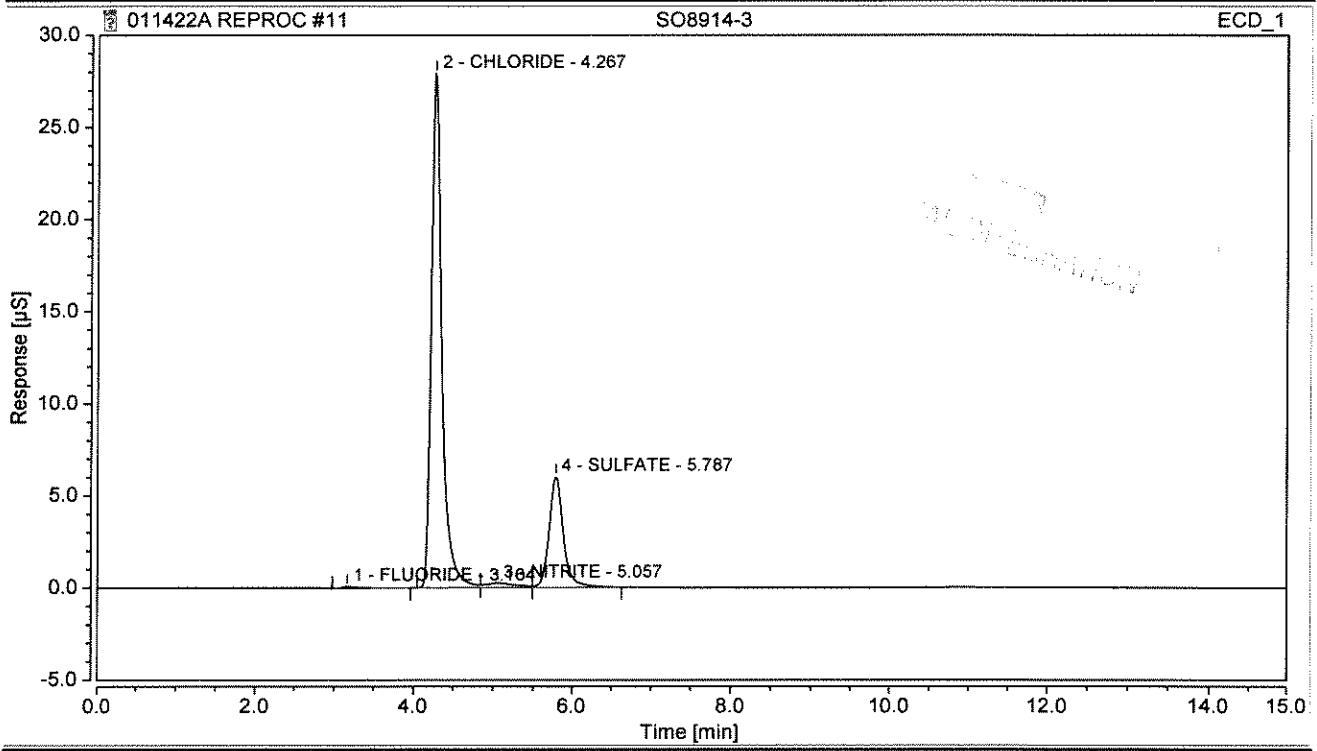
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	0.020	0.089	0.35	0.26	0.0857	n.a.
2	CHLORIDE	4.267	4.359	27.913	75.61	81.48	30.7587	n.a.
3	NITRITE	5.057	0.102	0.239	1.77	0.70	0.3241	n.a.
4	SULFATE	5.787	1.284	6.016	22.27	17.56	11.5542	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.765**	**34.256**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8914-3**	*Run Time (min):*	**14.98**
Vial Number:	**11**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 15:42**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

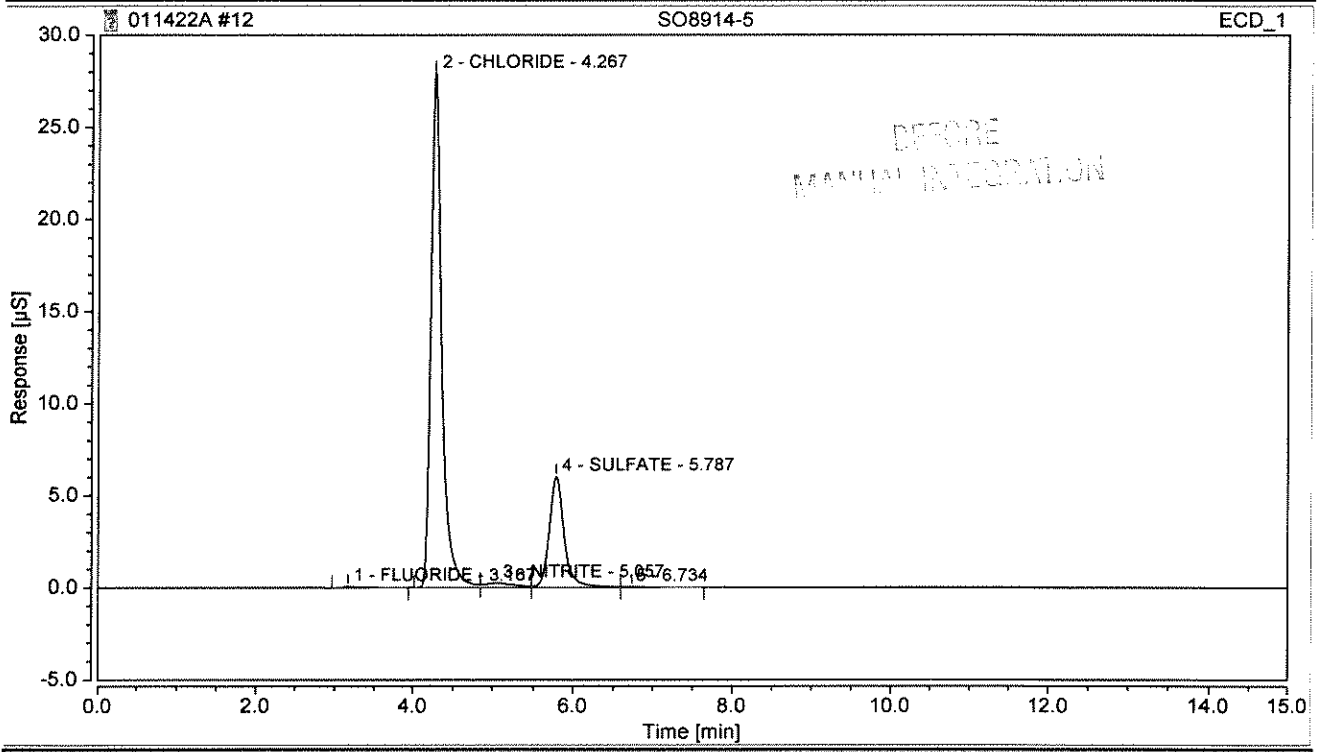
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	0.020	0.089	0.35	0.26	0.0857	n.a.
2	CHLORIDE	4.267	4.359	27.913	75.61	81.48	30.7587	n.a.
3	NITRITE	5.057	0.102	0.239	1.77	0.70	0.3241	n.a.
4	SULFATE	5.787	1.284	6.016	22.27	17.56	11.5542	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.765**	**34.256**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8914-5**	*Run Time (min):*	**14.99**
Vial Number:	**12**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 16:02**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

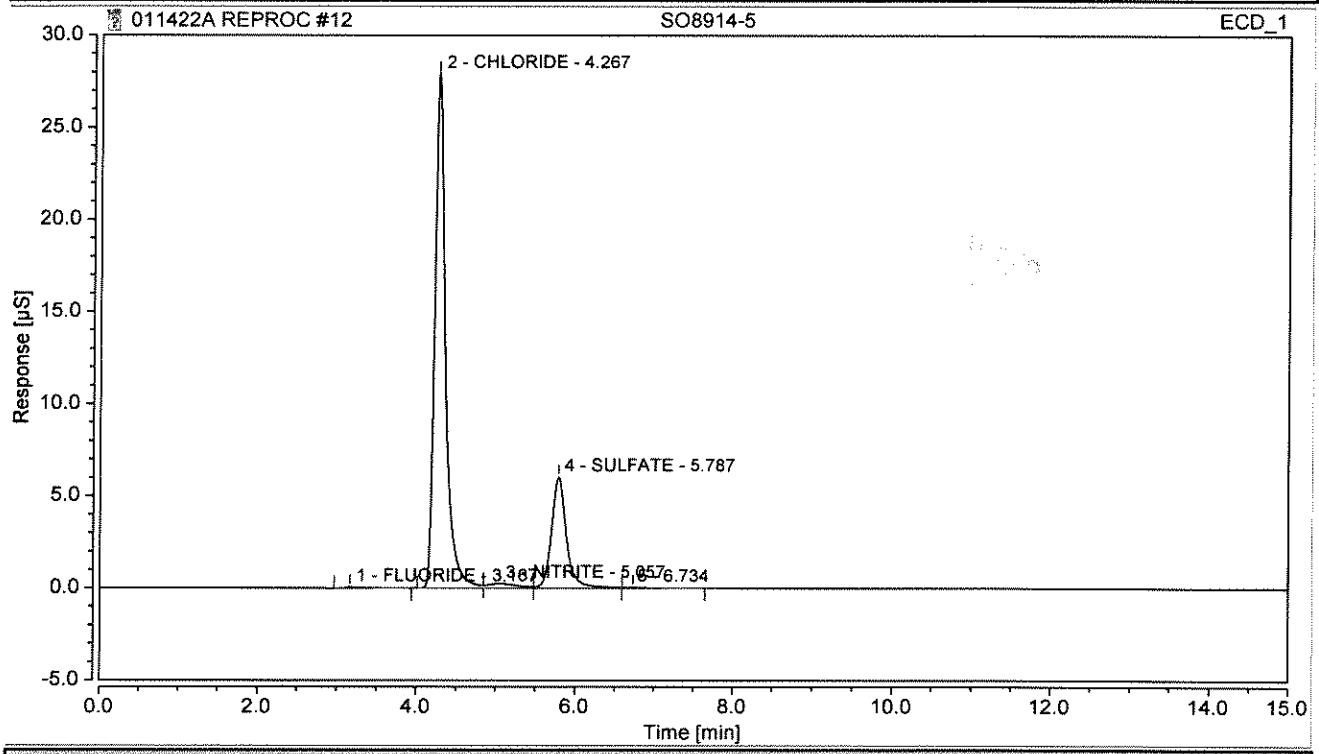
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	0.015	0.059	0.26	0.17	0.0651	n.a.
2	CHLORIDE	4.267	4.366	27.917	75.26	81.44	30.8079	n.a.
3	NITRITE	5.057	0.100	0.241	1.73	0.70	0.3181	n.a.
4	SULFATE	5.787	1.306	6.026	22.52	17.58	11.7562	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.788**	**34.243**	**99.77**	**99.89**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8914-5**	*Run Time (min):*	**14.99**
Vial Number:	**12**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 16:02**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

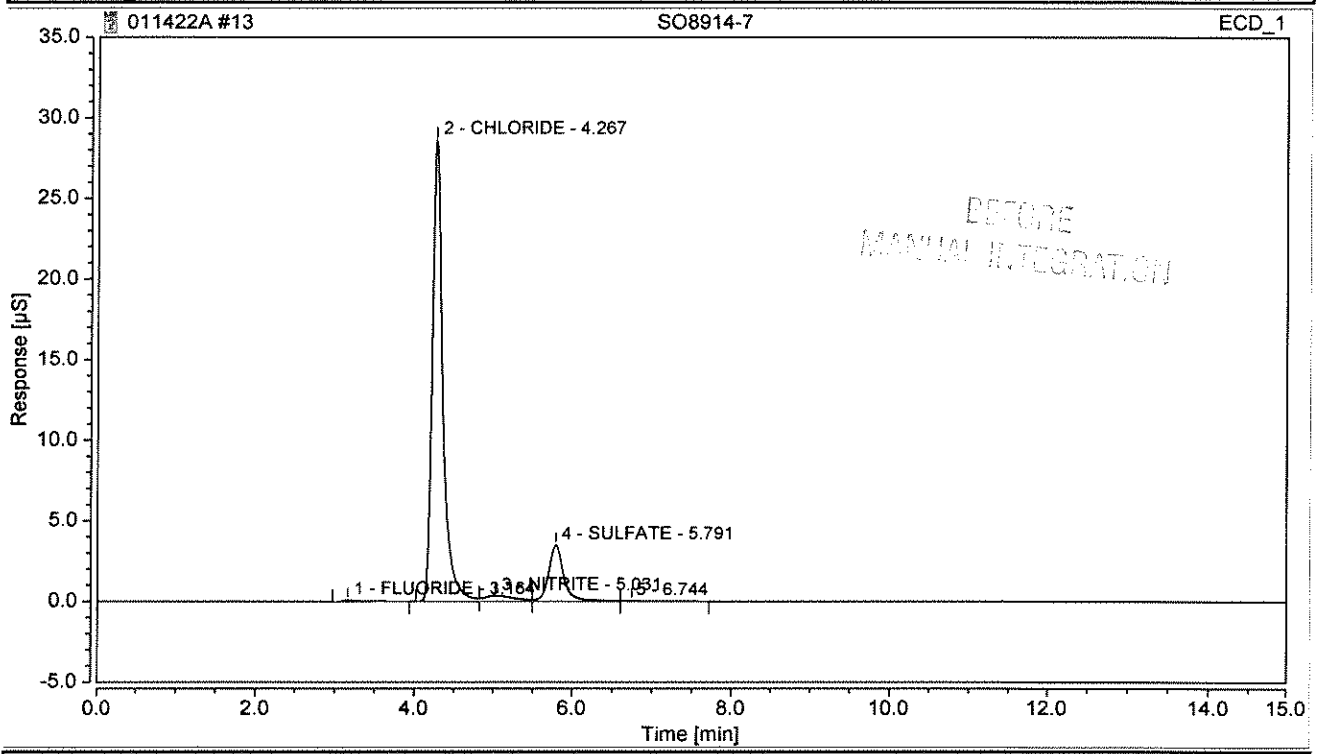
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	0.015	0.059	0.26	0.17	0.0651	n.a.
2	CHLORIDE	4.267	4.366	27.917	75.26	81.44	30.8079	n.a.
3	NITRITE	5.057	0.100	0.241	1.73	0.70	0.3181	n.a.
4	SULFATE	5.787	1.306	6.026	22.52	17.58	11.7562	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.788**	**34.243**	**99.77**	**99.89**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8914-7**	*Run Time (min):*	**14.98**
Vial Number:	**13**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 16:23**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

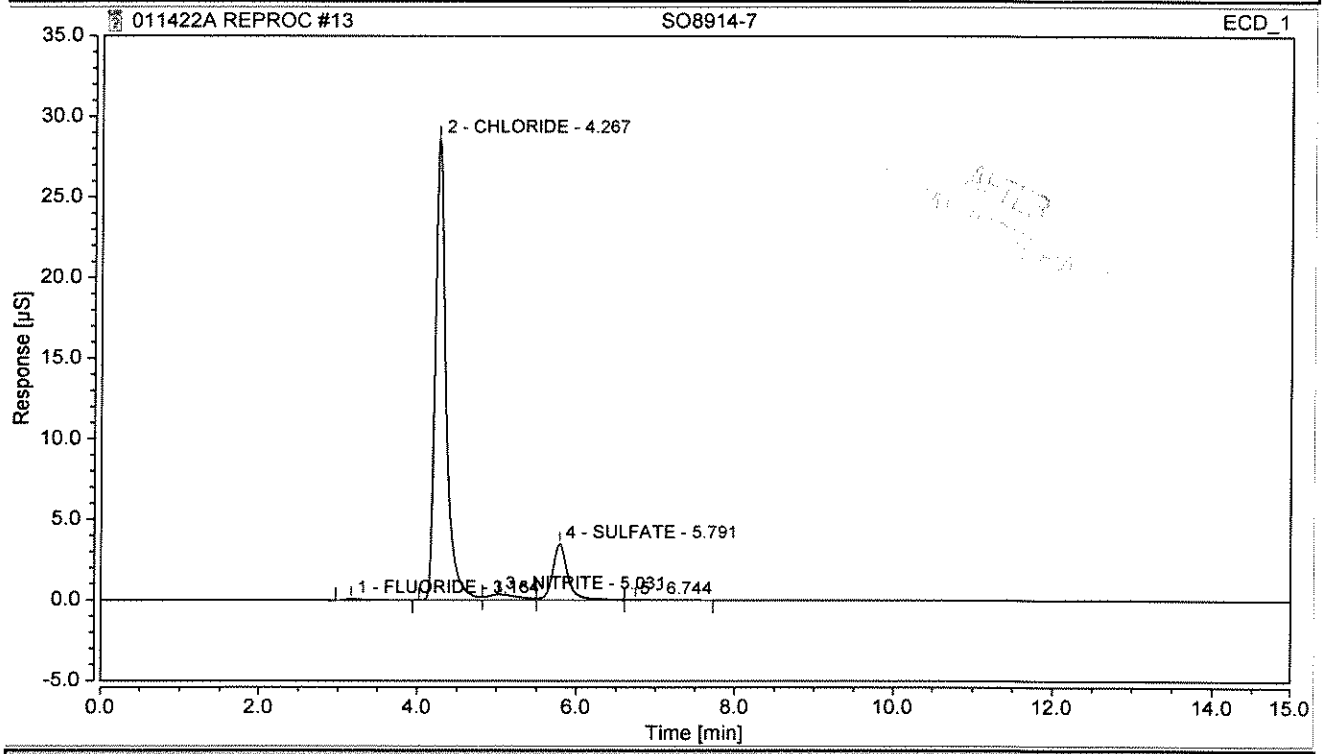
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	0.023	0.089	0.42	0.27	0.0979	n.a.
2	CHLORIDE	4.267	4.482	28.651	82.36	87.84	31.6201	n.a.
3	NITRITE	5.031	0.154	0.348	2.84	1.07	0.4899	n.a.
4	SULFATE	5.791	0.770	3.499	14.15	10.73	6.9287	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.429**	**32.586**	**99.76**	**99.91**		

Chromatogram and Results

Injection Details

Injection Name:	**SO8914-7**	*Run Time (min):*	**14.98**
Vial Number:	**13**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**14/Jan/22 16:23**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

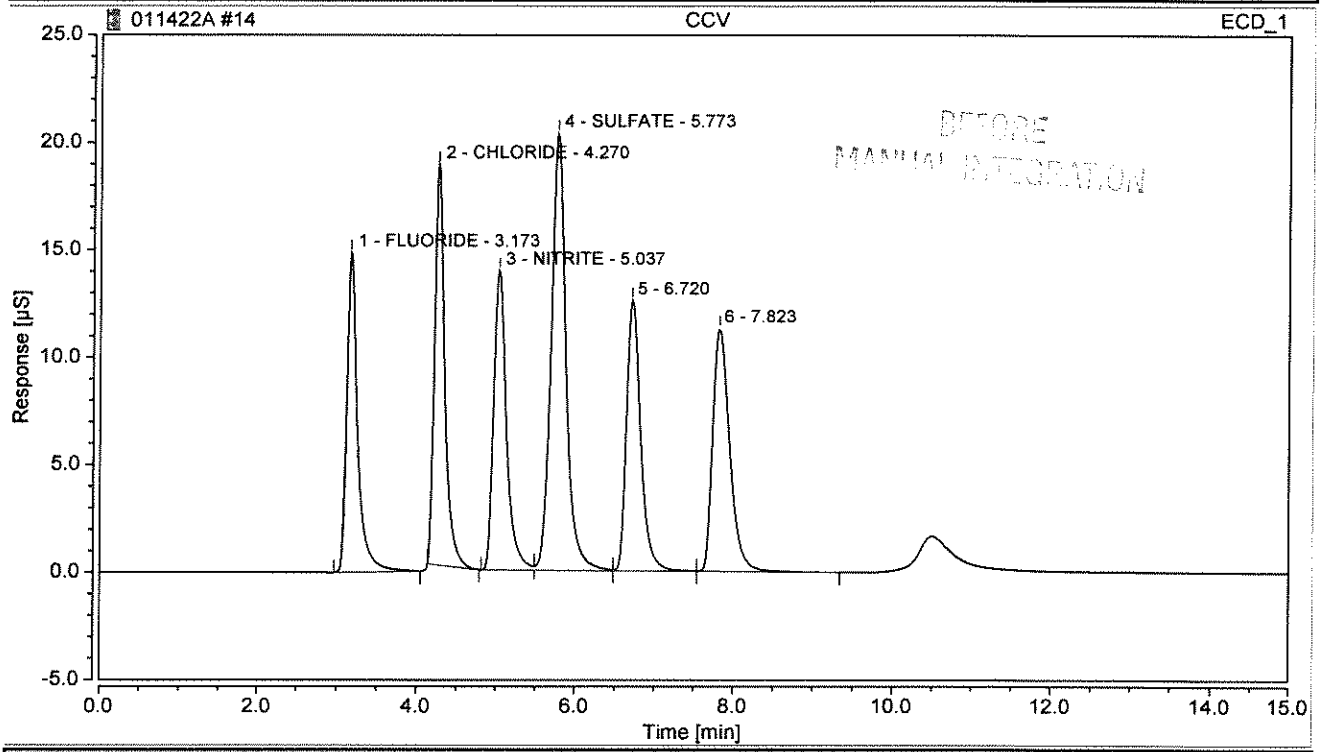
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	0.023	0.089	0.42	0.27	0.0979	n.a.
2	CHLORIDE	4.267	4.482	28.651	82.36	87.84	31.6201	n.a.
3	NITRITE	5.031	0.154	0.348	2.84	1.07	0.4899	n.a.
4	SULFATE	5.791	0.770	3.499	14.15	10.73	6.9287	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.429**	**32.586**	**99.76**	**99.91**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.98**
Vial Number:	**14**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**14/Jan/22 16:44**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

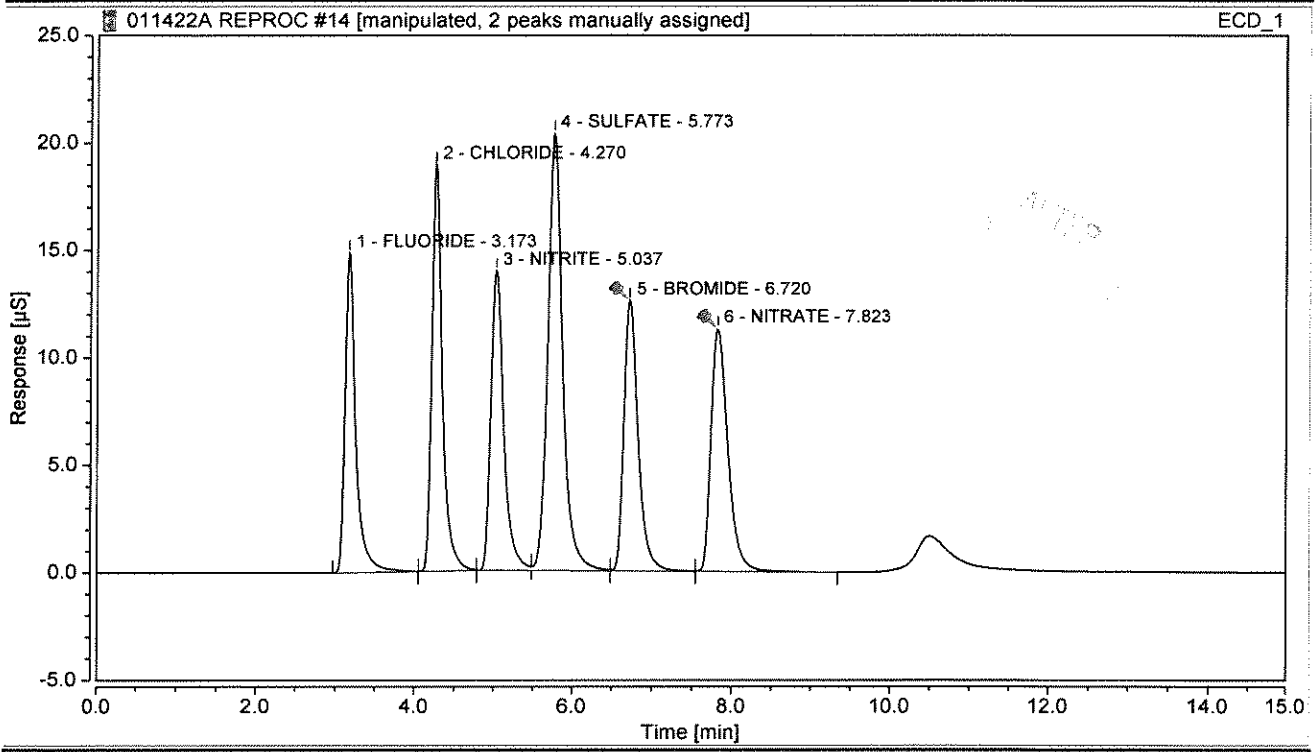
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.173	2.361	14.882	13.41	16.22	5.0056	0.1121
2	CHLORIDE	4.270	2.789	18.663	15.84	20.34	9.8914	-1.0864
3	NITRITE	5.037	2.604	13.943	14.79	15.19	4.1309	3.2717
4	SULFATE	5.773	4.428	20.361	25.15	22.19	19.9280	-0.3602
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**12.183**	**67.850**	**69.18**	**73.93**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**14.98**
Vial Number:	**14**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**14/Jan/22 16:44**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

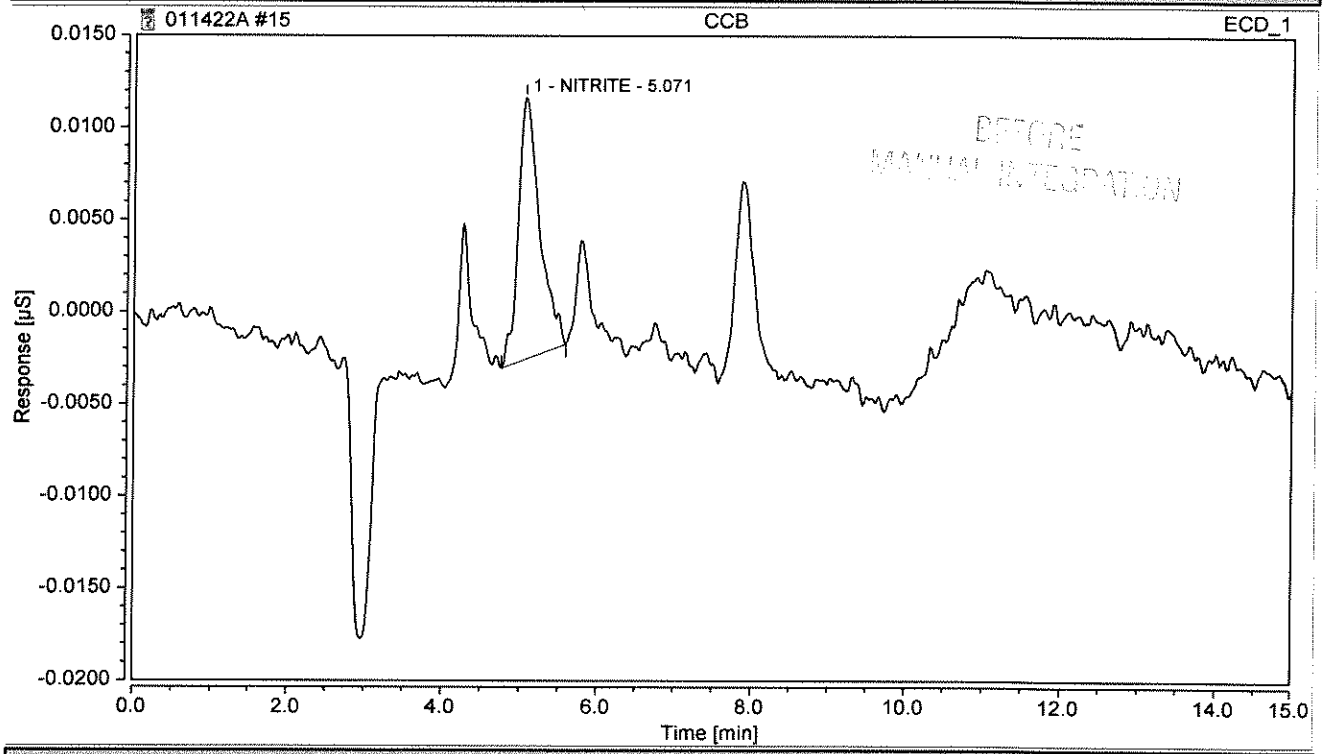
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.173	2.361	14.882	13.33	16.17	5.0056	0.1121
2	CHLORIDE	4.270	2.903	18.929	16.39	20.57	10.2895	2.8948
3	NITRITE	5.037	2.601	13.938	14.68	15.15	4.1247	3.1187
4	SULFATE	5.773	4.424	20.356	24.98	22.12	19.9078	-0.4610
5	BROMIDE	6.720	2.618	12.597	14.78	13.69	21.5585	7.7927
6	NITRATE	7.823	2.803	11.318	15.83	12.30	3.8118	-4.7038
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**17.710**	**92.020**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**14.98**
Vial Number:	**15**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**14/Jan/22 17:05**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	NITRITE	5.071	0.005	0.014	100.00	100.00	0.0073	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.005**	**0.014**	**100.00**	**100.00**		