TechLaw
Quality & Integrity

Ion Chromatography
EPA Method 300.0 / SW-846 Method 9056

Analysis Date: 11/11/2016 Analyst: Nick Philpot

TDF #: A-128 Project Name: Bonita Peak Waters 3 OCT 2016 #:C161021

Standards Traceability Documentation

Vendor	Standard	LIMS ID #:	Expires	Purpose
Inorganic Ventures	QCP-QCS-5	C601084	1-31-2017	SCV
Inorganic Ventures	10,000 ppm Fl	C601070	1-31-2017	Calibration
Inorganic Ventures	10,000 ppm Cl	C601071	1-31-2017	Calibration
Inorganic Ventures	10,000 ppm NO_2	C601072	1-31-2017	Calibration
Inorganic Ventures	10,000 ppm SO_4	C601073	1-31-2017	Calibration
Inorganic Ventures	10,000 ppm Br	C601074	1-31-2017	Calibration
Inorganic Ventures	10,000 ppm NO_3	C601075	1-31-2017	Calibration
Inorganic Ventures	10,000 ppm PO_4	C601076	1-31-2017	Calibration
ESAT	Spike Mix	C601082	1-31-2017	MS / LCS

Calibration Standards

Cal Stock LIMS ID #: C601078 Prepared: 01/31/2016 Exp: 01/31/2017

Name	F^- mg/L	Cl^- mg/L	Br^- mg/L	NO_2-N g/L	NO_3-N mg/L	PO_4 mg/L	SO_4^- mg/L
Stock	20	200	50	50	50	20	500
Std. 1	0.2	2	0.5	0.5	0.5	0.2	5.0
Std. 2	0.4	4	1	1	1	0.4	10
Std. 3	1	10	2.5	2.5	2.5	1	25
Std. 4	4	40	10	10	10	4	100
Std. 5	10	100	25	25	25	10	250

Instrument Analysis Parameters

Column Press: Approx 2100 Eluent Cond: approx 0.00 Eluent Prep. Date: 11/10/2016

Cal. Date: 09/20/2016 Cal. By: N Philpot

Analytical Run Information

CCV LIMS ID #: C605002 Prepared: 01/31/2016 Exp: prepared as needed

Spiked Sample ID: C161021-01, -31 mL Sample: 10
mL Spike: varies

Analytical Batch ID: 1611009

Sequence ID: 1611090

Upload Date: 11/15/2016 Upload By: NP

Peer Review Date: 12/08/16 By: SV

ANALYSIS SEQUENCE

1611090

Instrument: ESAT Dionex IC Sequence Date: 11/15/16 08:23 Printed: 11/15/2016 8:36:31AM

Lab Number	Dilut. Factor	Analysis	STD ID	Sample/Std Name	EPA Tag ID	Source Sple	Comments
1611090-ICV1		QC	C605002	Initial Cal Check		-	
1611090-ICB1		QC		Initial Cal Blank		-	
1611090-SCV1		QC	C601084	Secondary Cal Check		-	
1611090-IBL1		QC		Instrument Blank		-	
1611009-BS1		QC		LCS		-	
1611009-BLK1		QC		Blank		-	
C161021-01 A		nions by Ion Chromatograpl		SS71-SS-00-EPA	8-A		
1611009-DUP1		QC		Duplicate		C161021-01	
1611009-MS1		QC		Matrix Spike		C161021-01	
C161021-07 A		nions by Ion Chromatograpl		SS73-SS-00-EPA	8-A		
C161021-10 A		nions by Ion Chromatograpl		SS74-SS-00-EPA	8-A		
1611090-CCV1		QC	C605002	Calibration Check		-	
1611090-CCB1		QC		Calibration Blank		-	
C161021-13 A		nions by Ion Chromatograpl		SS75-SS-00-EPA	8-A		
C161021-16 A		nions by Ion Chromatograpl		SS76-SS-00-EPA	8-A		
C161021-19 A		nions by Ion Chromatograpl		SS77-SS-00-EPA	8-A		
C161021-22 A		nions by Ion Chromatograpl		SS78-SS-00-EPA	8-A		
C161021-25 A		nions by Ion Chromatograpl		SS78-SS-30-EPA	8-A		
C161021-28 A		nions by Ion Chromatograpl		SS79-SS-00-EPA	8-A		
C161021-31 A		nions by Ion Chromatograpl		SS80-SS-00-EPA	8-A		
1611009-MS2		QC		Matrix Spike		C161021-31	
C161021-34 A		nions by Ion Chromatograpl		SS80-SS-90-EPA	8-A		
C161021-37 A		nions by Ion Chromatograpl		SW81-SW-00-EPA	8-A		
1611090-CCV2		QC	C605002	Calibration Check		-	
1611090-CCB2		QC		Calibration Blank		-	
1611090-CCV3		QC	C605002	Calibration Check		-	
1611090-CCB3		QC		Calibration Blank		-	
C161021-04 A		nions by Ion Chromatograpl		SS72-SS-00-EPA	8-A		
1611090-CCV4		QC	C605002	Calibration Check		-	
1611090-CCB4		QC		Calibration Blank		-	

Exp 11/14

PREPARATION BENCH SHEET

1611009

TechLaw, Inc. - ESAT Region 8

Printed: 11/1/2016 10:14:14AM

Matrix: Water

Date Prepared: 11/01/16 10:13 By: NP

Prepared using: WETCHEM - No Prep Req

Lab Number	Analysis	EPA Tag ID	Initial (mL)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Source ID	QC Code	Extraction Comments
1611009-BLK1	QC		10	10						Blank	
1611009-BS1	QC		10	10	C601082	100				LCS	
1611009-DUP1	QC		10	10					C161021-01	Duplicate	
1611009-MS1	QC		10	10	C601082	100			C161021-01	Matrix Spike	
1611009-MS2	QC		10	10	C601082	100			C161021-31	Matrix Spike	
C161021-01 A	nions by Ion Chromatograpl	8-A	10	10						SS71-SS-00-EPA	2x
C161021-04 A	nions by Ion Chromatograpl	8-A	10	10						SS72-SS-00-EPA	~~2x~~ RL 4x
C161021-07 A	nions by Ion Chromatograpl	8-A	10	10						SS73-SS-00-EPA	2x
C161021-10 A	nions by Ion Chromatograpl	8-A	10	10						SS74-SS-00-EPA	4x
C161021-13 A	nions by Ion Chromatograpl	8-A	10	10						SS75-SS-00-EPA	2x
C161021-16 A	nions by Ion Chromatograpl	8-A	10	10						SS76-SS-00-EPA	
C161021-19 A	nions by Ion Chromatograpl	8-A	10	10						SS77-SS-00-EPA	
C161021-22 A	nions by Ion Chromatograpl	8-A	10	10						SS78-SS-00-EPA	
C161021-25 A	nions by Ion Chromatograpl	8-A	10	10						SS78-SS-30-EPA	
C161021-28 A	nions by Ion Chromatograpl	8-A	10	10						SS79-SS-00-EPA	
C161021-31 A	nions by Ion Chromatograpl	8-A	10	10						SS80-SS-00-EPA	
C161021-34 A	nions by Ion Chromatograpl	8-A	10	10						SS80-SS-90-EPA	
C161021-37 A	nions by Ion Chromatograpl	8-A	10	10						SW81-SW-00-EPA	

A-128
Pipettes
WET01-0100
WET02-1000
E10673
E10676
E10677
E10672
E10664

Preparation Reviewed By Date

Sequence: 1611009_C161021_NP
Operator: US ENVIRONMENTAL PRO
Printed: 11/11/2016 2:19:02 PM

Title: Right Sequence
Datasource: D9VVZ191_local
Location: Right_system\Sequences and Data\2016 ESAT
Timebase: Right_system
#Samples: 39
Created: 11/10/2016 8:58:41 AM by US ENVIRONMENTAL PRO
Last Update: 11/11/2016 2:18:56 PM by US ENVIRONMENTAL PRO

No.	Pos.	Name	Dil. Factor	Type	Inj. Date/Time	Inj. Vol.	Status	Method
1	1	Std 0	1.0000	Unknown	9/20/2016 8:38:31 PM	25.0	Finished	Met Anions Rt
2	2	Std 1	1.0000	Standard	9/20/2016 8:53:35 PM	25.0	Finished	Met Anions Rt
3	3	Std 2	1.0000	Standard	9/20/2016 9:08:39 PM	25.0	Finished	Met Anions Rt
4	4	Std 3	1.0000	Standard	9/20/2016 9:23:44 PM	25.0	Finished	Met Anions Rt
5	5	Std 4	1.0000	Standard	9/20/2016 9:38:49 PM	25.0	Finished	Met Anions Rt
6	6	Std 5	1.0000	Standard	9/20/2016 9:53:53 PM	25.0	Finished	Met Anions Rt
7	2	SEQ-ICV	1.0000	Unknown	11/10/2016 2:15:44 PM	25.0	Finished	Met Anions Rt
8	1	SEQ-ICB	1.0000	Unknown	11/10/2016 2:30:49 PM	25.0	Finished	Met Anions Rt
9	3	SEQ-SCV1	1.0000	Unknown	11/10/2016 2:45:53 PM	25.0	Finished	Met Anions Rt
10	4	SEQ-IBL1	1.0000	Unknown	11/10/2016 3:00:57 PM	25.0	Finished	Met Anions Rt
11	5	1611009-BS1	1.0000	Unknown	11/10/2016 3:16:02 PM	25.0	Finished	Met Anions Rt
12	6	1611009-BLK1	1.0000	Unknown	11/10/2016 3:31:06 PM	25.0	Finished	Met Anions Rt
13	7	C161021-01 @2X	1.0000	Unknown	11/10/2016 3:46:10 PM	25.0	Finished	Met Anions Rt
14	8	1611009-DUP1 @2X	1.0000	Unknown	11/10/2016 4:01:15 PM	25.0	Finished	Met Anions Rt
15	9	1611009-MS1 @2X	1.0000	Unknown	11/10/2016 4:16:19 PM	25.0	Finished	Met Anions Rt
16	10	~~C161021-04 @2X~~ RP-Q YX	1.0000	Unknown	11/10/2016 4:31:23 PM	25.0	Finished	Met Anions Rt
17	11	C161021-07 @2X	1.0000	Unknown	11/10/2016 4:46:28 PM	25.0	Finished	Met Anions Rt
18	12	C161021-10 @4X	1.0000	Unknown	11/10/2016 5:01:33 PM	25.0	Finished	Met Anions Rt
19	2	SEQ-CCV	1.0000	Unknown	11/10/2016 5:16:37 PM	25.0	Finished	Met Anions Rt
20	1	SEQ-CCB	1.0000	Unknown	11/10/2016 5:31:42 PM	25.0	Finished	Met Anions Rt
21	13	C161021-13 @2X	1.0000	Unknown	11/10/2016 5:46:47 PM	25.0	Finished	Met Anions Rt
22	14	C161021-16	1.0000	Unknown	11/10/2016 6:01:51 PM	25.0	Finished	Met Anions Rt
23	15	C161021-19	1.0000	Unknown	11/10/2016 6:16:55 PM	25.0	Finished	Met Anions Rt
24	16	C161021-22	1.0000	Unknown	11/10/2016 6:32:00 PM	25.0	Finished	Met Anions Rt
25	17	C161021-25	1.0000	Unknown	11/10/2016 6:47:04 PM	25.0	Finished	Met Anions Rt
26	18	C161021-28	1.0000	Unknown	11/10/2016 7:02:08 PM	25.0	Finished	Met Anions Rt
27	19	C161021-31	1.0000	Unknown	11/10/2016 7:17:13 PM	25.0	Finished	Met Anions Rt
28	20	1611009-MS2	1.0000	Unknown	11/10/2016 7:32:17 PM	25.0	Finished	Met Anions Rt
29	21	C161021-34	1.0000	Unknown	11/10/2016 7:47:22 PM	25.0	Finished	Met Anions Rt
30	22	C161021-37	1.0000	Unknown	11/10/2016 8:02:27 PM	25.0	Finished	Met Anions Rt
31	2	SEQ-CCV	1.0000	Unknown	11/10/2016 8:17:31 PM	25.0	Finished	Met Anions Rt
32	1	SEQ-CCB	1.0000	Unknown	11/10/2016 8:32:36 PM	25.0	Finished	Met Anions Rt
33	~~2~~	~~SEQ-CCV~~	1.0000	Unknown	11/11/2016 12:34:26 PM	25.0	Finished	Met Anions Rt
34	2	SEQ-CCV	1.0000	Unknown	11/11/2016 12:49:31 PM	25.0	Finished	Met Anions Rt
35	1	SEQ-CCB	1.0000	Unknown	11/11/2016 1:04:35 PM	25.0	Finished	Met Anions Rt
36	10	C161021-04 @4X	1.0000	Unknown	11/11/2016 1:19:39 PM	25.0	Finished	Met Anions Rt
37	2	SEQ-CCV	1.0000	Unknown	11/11/2016 1:34:44 PM	25.0	Finished	Met Anions Rt
38	1	SEQ-CCB	1.0000	Unknown	11/11/2016 1:49:49 PM	25.0	Finished	Met Anions Rt
39	1	STOP	1.0000	Unknown	11/11/2016 2:02:25 PM	25.0	Finished	Met Anions Rt

ANION SUMMARY REPORT

No.	Name	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	Std 0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Std 1	2.957	0.0552	3.56	0.37	5.50	0.2267
3	Std 2	2.957	0.1032	3.27	0.73	5.29	0.4224
4	Std 3	2.957	0.2638	3.24	1.82	5.02	1.0666
5	Std 4	2.950	1.0366	2.86	7.38	4.47	3.9724
6	Std 5	2.950	2.8920	2.77	20.00	4.47	10.0031
7	SEQ-ICV	2.917	1.0574	2.86	9.79	4.78	4.0469
8	SEQ-ICB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9	SEQ-SCV1	2.937	3.1896	7.93	29.22	13.52	10.8787
10	SEQ-IBL1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11	1611009-BS1	2.920	1.4424	9.05	13.57	12.73	5.3907
12	1611009-BLK1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	C161021-01 @2X	2.923	0.2248	1.03	2.01	2.55	0.9116
14	1611009-DUP1 @2X	2.930	0.2246	1.02	2.01	2.56	0.9108
15	1611009-MS1 @2X	2.930	1.6090	4.22	14.96	8.30	5.9548
16	C161021-04 @2X	2.927	0.1554	0.32	1.36	0.92	0.6333
17	C161021-07 @2X	2.917	0.1674	0.41	1.48	1.11	0.6817
18	C161021-10 @4X	2.927	0.0957	0.34	0.80	0.84	0.3917
19	SEQ-CCV	2.927	1.0715	2.88	9.76	4.77	4.0973
20	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21	C161021-13 @2X	2.923	0.1494	0.40	1.32	1.07	0.6092
22	C161021-16	2.933	0.0104	0.70	0.08	1.51	0.0428
23	C161021-19	2.923	0.0101	1.27	0.08	2.46	0.0418
24	C161021-22	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
25	C161021-25	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
26	C161021-28	2.917	0.0144	0.16	0.12	0.36	0.0591
27	C161021-31	2.930	0.0168	0.44	0.14	1.04	0.0693
28	1611009-MS2	2.920	1.3906	7.09	13.20	11.27	5.2132
29	C161021-34	3.377	0.0122	22.32	0.06	24.06	0.0503
30	C161021-37	2.927	0.0765	0.40	0.67	0.99	0.3139
31	SEQ-CCV	2.923	1.0974	2.94	9.97	4.89	4.1892
32	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
33	SEQ-CCV	2.940	1.0904	2.93	10.15	4.95	4.1646
34	SEQ-CCV	2.930	1.0854	2.91	10.11	4.89	4.1465
35	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
36	C161021-04 @4X	2.923	0.0803	0.36	0.72	0.92	0.3292
37	SEQ-CCV	2.923	1.0872	2.92	10.08	4.89	4.1531
38	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
39	STOP	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Sum:	82.513	19.710	90.609	171.962	140.114	72.971
	Average:	2.947	0.704	3.236	6.141	5.004	2.606
	Rel.Std.Dev:	2.889 %	121.166 %	136.042 %	119.365 %	102.630 %	115.080 %

No.	Name	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	Std 0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Std 1	4.25	0.365	23.50	2.297	33.86	1.9970
3	Std 2	4.25	0.737	23.34	4.667	33.78	3.9895
4	Std 3	4.25	1.914	23.52	12.493	34.42	10.0058
5	Std 4	4.26	8.790	24.26	59.805	36.19	39.9997
6	Std 5	4.29	25.771	24.72	168.140	37.56	100.0000
7	SEQ-ICV	4.20	9.179	24.79	80.540	39.30	41.5257
8	SEQ-ICB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9	SEQ-SCV1	4.19	3.149	7.83	26.410	12.22	15.9466
10	SEQ-IBL1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11	1611009-BS1	4.19	5.699	35.75	50.061	46.98	27.3314
12	1611009-BLK1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	C161021-01 @2X	4.19	0.026	0.12	0.208	0.26	0.1458
14	1611009-DUP1 @2X	4.19	0.018	0.08	0.143	0.18	0.1018
15	1611009-MS1 @2X	4.20	5.334	13.98	45.986	25.50	25.7622
16	C161021-04 @2X	4.19	0.025	0.05	0.144	0.10	0.1395
17	C161021-07 @2X	4.18	0.034	0.08	0.246	0.18	0.1858
18	C161021-10 @4X	4.19	0.019	0.07	0.152	0.16	0.1069
19	SEQ-CCV	4.21	9.231	24.84	80.449	39.27	41.7318
20	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21	C161021-13 @2X	4.19	0.023	0.06	0.176	0.14	0.1265
22	C161021-16	4.20	0.047	3.14	0.372	6.95	0.2587
23	C161021-19	4.19	0.031	3.87	0.244	7.96	0.1709
24	C161021-22	4.20	0.034	1.84	0.264	3.83	0.1862
25	C161021-25	4.18	0.040	2.18	0.314	4.52	0.2211
26	C161021-28	4.18	0.015	0.17	0.118	0.37	0.0835
27	C161021-31	4.19	0.032	0.85	0.249	1.82	0.1779
28	1611009-MS2	4.20	5.423	27.64	47.263	40.34	26.1479
29	C161021-34	4.19	0.013	24.24	0.103	38.81	0.0735
30	C161021-37	4.19	0.031	0.16	0.245	0.36	0.1727
31	SEQ-CCV	4.21	9.279	24.87	80.373	39.38	41.9193
32	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
33	SEQ-CCV	4.22	9.215	24.75	79.464	38.72	41.6662
34	SEQ-CCV	4.21	9.244	24.80	79.953	38.71	41.7823
35	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
36	C161021-04 @4X	4.18	0.010	0.05	0.079	0.10	0.0564
37	SEQ-CCV	4.21	9.220	24.77	80.211	38.91	41.6862
38	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
39	STOP	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Sum:	126.163	112.948	390.340	901.171	600.919	503.699
	Average:	4.205	3.765	13.011	30.039	20.031	16.790
	Rel.Std.Dev:	0.652 %	150.550 %	94.480 %	139.704 %	90.823 %	140.137 %

No.	Name	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	Std 0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Std 1	5.063	0.180	11.618	0.966	14.243	0.492
3	Std 2	5.063	0.387	12.246	1.993	14.425	1.021
4	Std 3	5.070	0.991	12.185	5.158	14.212	2.513
5	Std 4	5.070	4.128	11.392	21.713	13.141	9.843
6	Std 5	5.083	11.004	10.554	56.496	12.621	25.156
7	SEQ-ICV	4.990	4.226	11.412	27.989	13.659	10.066
8	SEQ-ICB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9	SEQ-SCV1	5.007	6.629	16.480	42.756	19.789	15.489
10	SEQ-IBL1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11	1611009-BS1	4.987	2.132	13.371	14.265	13.387	5.229
12	1611009-BLK1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	C161021-01 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
14	1611009-DUP1 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
15	1611009-MS1 @2X	4.993	2.027	5.313	13.261	7.355	4.983
16	C161021-04 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17	C161021-07 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
18	C161021-10 @4X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
19	SEQ-CCV	4.997	4.201	11.304	27.742	13.542	10.009
20	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21	C161021-13 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
22	C161021-16	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
23	C161021-19	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
24	C161021-22	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
25	C161021-25	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
26	C161021-28	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
27	C161021-31	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
28	1611009-MS2	4.993	2.063	10.514	13.562	11.576	5.068
29	C161021-34	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
30	C161021-37	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
31	SEQ-CCV	5.007	4.223	11.319	27.629	13.538	10.059
32	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
33	SEQ-CCV	5.003	4.201	11.283	27.785	13.539	10.010
34	SEQ-CCV	4.990	4.207	11.287	27.891	13.505	10.023
35	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
36	C161021-04 @4X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37	SEQ-CCV	5.003	4.201	11.286	27.882	13.525	10.008
38	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
39	STOP	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Sum:	75.320	54.800	171.564	337.089	202.056	129.969
	Average:	5.021	3.653	11.438	22.473	13.470	8.665
	Rel.Std.Dev:	0.725 %	73.983 %	19.501 %	66.796 %	18.169 %	71.174 %

No.	Name	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	Std 0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Std 1	6.073	0.038	2.427	0.185	2.730	0.482
3	Std 2	6.070	0.078	2.468	0.375	2.712	1.003
4	Std 3	6.073	0.193	2.367	0.930	2.562	2.504
5	Std 4	6.063	0.751	2.072	3.695	2.236	10.000
6	Std 5	6.057	2.074	1.989	10.443	2.333	25.000
7	SEQ-ICV	5.967	0.779	2.103	4.586	2.238	10.372
8	SEQ-ICB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9	SEQ-SCV1	5.973	4.728	11.754	28.120	13.015	42.402
10	SEQ-IBL1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11	1611009-BS1	5.970	0.396	2.486	2.310	2.168	5.228
12	1611009-BLK1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	C161021-01 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
14	1611009-DUP1 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
15	1611009-MS1 @2X	5.977	0.374	0.979	2.136	1.185	4.923
16	C161021-04 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17	C161021-07 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
18	C161021-10 @4X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
19	SEQ-CCV	5.967	0.784	2.109	4.583	2.237	10.436
20	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21	C161021-13 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
22	C161021-16	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
23	C161021-19	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
24	C161021-22	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
25	C161021-25	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
26	C161021-28	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
27	C161021-31	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
28	1611009-MS2	5.987	0.378	1.927	2.176	1.857	4.981
29	C161021-34	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
30	C161021-37	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
31	SEQ-CCV	5.990	0.787	2.109	4.567	2.238	10.479
32	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
33	SEQ-CCV	5.970	0.783	2.103	4.568	2.226	10.427
34	SEQ-CCV	5.953	0.785	2.106	4.593	2.224	10.457
35	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
36	C161021-04 @4X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37	SEQ-CCV	5.980	0.782	2.102	4.603	2.233	10.420
38	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
39	STOP	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Sum:	90.070	13.709	41.101	77.869	44.193	159.114
	Average:	6.005	0.914	2.740	5.191	2.946	10.608

	Rel.Std.Dev:	0.780 %	126.995 %	91.926 %	131.349 %	95.341 %	99.894 %

No.	Name	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	Std 0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Std 1	6.740	0.232	14.952	1.000	14.743	0.500
3	Std 2	6.737	0.465	14.703	1.975	14.292	0.994
4	Std 3	6.733	1.177	14.461	5.045	13.901	2.473
5	Std 4	6.710	5.201	14.354	22.226	13.451	10.009
6	Std 5	6.677	15.171	14.551	63.134	14.104	24.999
7	SEQ-ICV	6.600	5.354	14.457	27.735	13.535	10.273
8	SEQ-ICB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9	SEQ-SCV1	6.620	5.315	13.212	27.508	12.732	10.205
10	SEQ-IBL1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11	1611009-BS1	6.613	2.530	15.868	13.303	12.484	5.149
12	1611009-BLK1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	C161021-01 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
14	1611009-DUP1 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
15	1611009-MS1 @2X	6.623	2.375	6.225	12.380	6.866	4.851
16	C161021-04 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17	C161021-07 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
18	C161021-10 @4X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
19	SEQ-CCV	6.600	5.290	14.237	27.654	13.499	10.163
20	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21	C161021-13 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
22	C161021-16	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
23	C161021-19	6.657	0.103	12.958	0.521	17.015	0.223
24	C161021-22	6.663	0.246	13.483	1.243	18.068	0.530
25	C161021-25	6.653	0.248	13.530	1.256	18.098	0.534
26	C161021-28	6.647	0.149	1.698	0.754	2.348	0.322
27	C161021-31	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
28	1611009-MS2	6.633	2.420	12.335	12.553	10.714	4.938
29	C161021-34	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
30	C161021-37	6.660	0.038	0.200	0.196	0.291	0.083
31	SEQ-CCV	6.623	5.316	14.250	27.537	13.493	10.208
32	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
33	SEQ-CCV	6.600	5.288	14.201	27.548	13.423	10.159
34	SEQ-CCV	6.590	5.298	14.213	27.658	13.392	10.176
35	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
36	C161021-04 @4X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37	SEQ-CCV	6.617	5.292	14.218	27.758	13.465	10.166
38	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
39	STOP	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Sum:	132.997	67.508	248.105	328.986	249.917	126.955

Average:	6.650	3.375	12.405	16.449	12.496	6.348
Rel.Std.Dev:	0.718 %	106.658 %	35.202 %	97.965 %	36.218 %	97.584 %

No.	Name	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	Std 0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Std 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Std 2	8.947	0.041	1.309	0.127	0.917	0.383
4	Std 3	8.953	0.131	1.608	0.360	0.992	1.069
5	Std 4	8.943	0.565	1.560	1.532	0.927	3.942
6	Std 5	8.933	1.590	1.525	4.237	0.946	9.914
7	SEQ-ICV	8.660	0.589	1.590	1.673	0.817	4.087
8	SEQ-ICB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9	SEQ-SCV1	8.697	4.678	11.629	16.101	7.452	25.945
10	SEQ-IBL1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11	1611009-BS1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
12	1611009-BLK1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	C161021-01 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
14	1611009-DUP1 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
15	1611009-MS1 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
16	C161021-04 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17	C161021-07 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
18	C161021-10 @4X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
19	SEQ-CCV	8.683	0.576	1.551	1.570	0.766	4.010
20	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21	C161021-13 @2X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
22	C161021-16	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
23	C161021-19	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
24	C161021-22	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
25	C161021-25	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
26	C161021-28	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
27	C161021-31	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
28	1611009-MS2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
29	C161021-34	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
30	C161021-37	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
31	SEQ-CCV	8.683	0.580	1.553	1.572	0.770	4.030
32	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
33	SEQ-CCV	8.687	0.609	1.637	1.699	0.828	4.215
34	SEQ-CCV	8.687	0.591	1.585	1.715	0.830	4.100
35	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
36	C161021-04 @4X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
37	SEQ-CCV	8.693	0.608	1.634	1.678	0.814	4.207
38	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
39	STOP	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

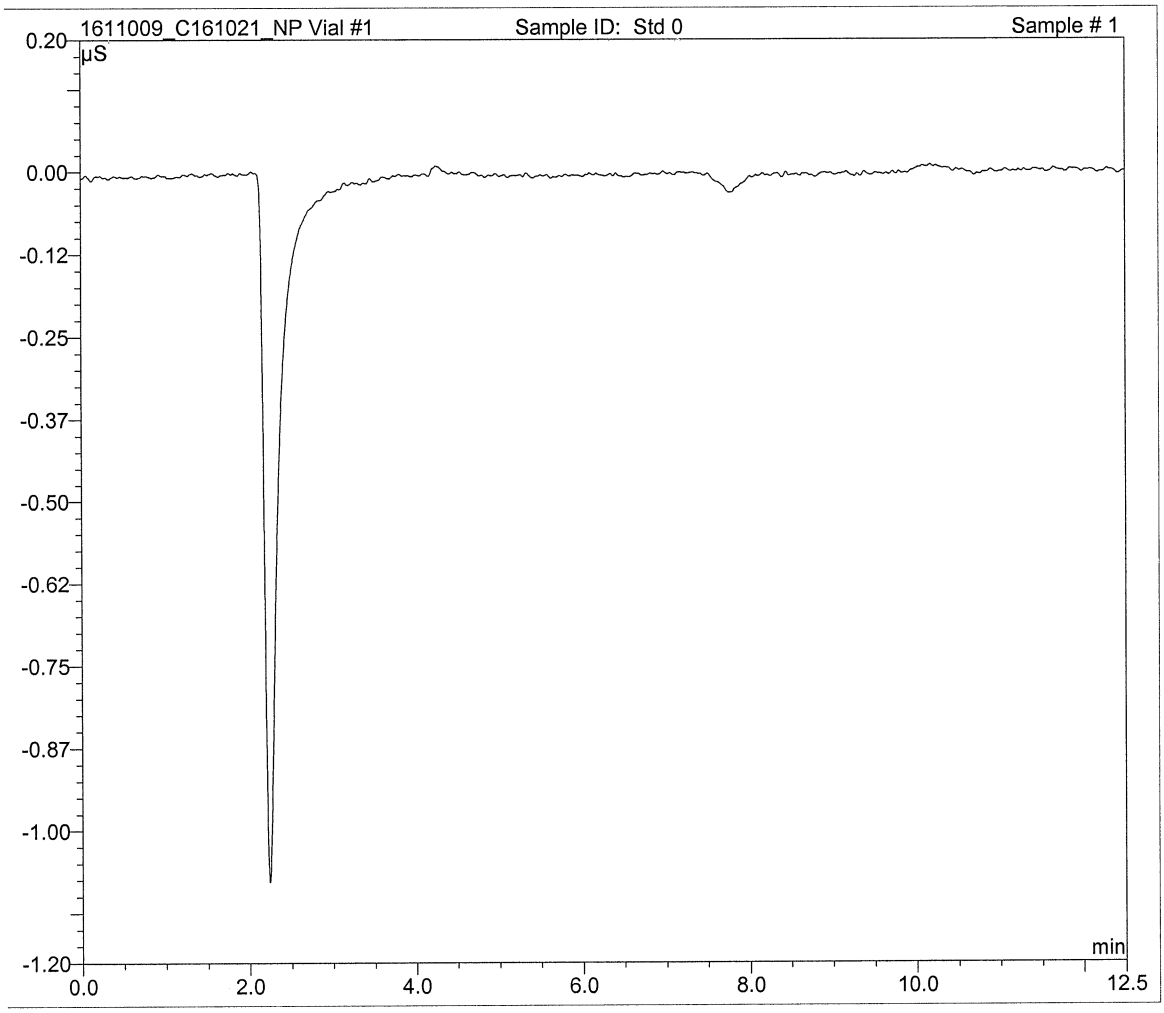
Sum:	96.567	10.558	27.180	32.262	16.060	65.903
Average:	8.779	0.960	2.471	2.933	1.460	5.991
Rel.Std.Dev:	1.498 %	134.715 %	122.974 %	153.021 %	136.212 %	117.402 %

No.	Name	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	Std 0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Std 1	10.163	0.682	43.941	1.963	28.930	5.240
3	Std 2	10.160	1.348	42.668	3.949	28.583	9.875
4	Std 3	10.180	3.467	42.613	10.486	28.892	23.767
5	Std 4	10.233	15.762	43.501	48.884	29.584	97.124
6	Std 5	10.337	45.761	43.890	125.192	27.967	261.603
7	SEQ-ICV	9.817	15.849	42.797	52.599	25.669	97.618
8	SEQ-ICB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9	SEQ-SCV1	9.860	12.539	31.170	45.946	21.266	78.515
10	SEQ-IBL1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11	1611009-BS1	9.747	3.744	23.483	13.049	12.246	25.524
12	1611009-BLK1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	C161021-01 @2X	9.907	21.614	98.851	76.627	97.187	130.256
14	1611009-DUP1 @2X	9.910	21.684	98.892	76.589	97.261	130.648
15	1611009-MS1 @2X	9.933	26.433	69.284	91.577	50.791	157.055
16	C161021-04 @2X	10.010	48.005	99.625	145.960	98.981	273.504
17	C161021-07 @2X	9.990	40.482	99.506	131.632	98.708	233.425
18	C161021-10 @4X	9.940	27.909	99.590	94.812	99.004	165.195
19	SEQ-CCV	9.843	16.006	43.074	53.101	25.920	98.519
20	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21	C161021-13 @2X	9.983	36.789	99.534	121.676	98.787	213.563
22	C161021-16	9.753	1.430	96.158	4.907	91.546	10.429
23	C161021-19	9.743	0.652	81.894	2.223	72.572	5.028
24	C161021-22	9.760	1.545	84.675	5.375	78.103	11.212
25	C161021-25	9.747	1.544	84.291	5.370	77.381	11.205
26	C161021-28	9.803	8.596	97.967	31.103	96.922	55.276
27	C161021-31	9.770	3.741	98.708	13.251	97.132	25.503
28	1611009-MS2	9.793	7.946	40.497	28.400	24.241	51.378
29	C161021-34	9.717	0.029	53.439	0.099	37.122	0.281
30	C161021-37	9.880	19.017	99.238	66.339	98.352	115.643
31	SEQ-CCV	9.830	16.025	42.954	52.433	25.692	98.627
32	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
33	SEQ-CCV	9.887	16.048	43.100	54.015	26.319	98.760
34	SEQ-CCV	9.907	16.064	43.096	54.606	26.441	98.850
35	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
36	C161021-04 @4X	9.943	22.312	99.596	77.287	98.981	134.161
37	SEQ-CCV	9.887	16.030	43.069	53.928	26.160	98.657
38	SEQ-CCB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

39	STOP	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Sum:	297.433	469.053	2,031.102	1,543.378	1,746.740	2,816.443
	Average:	9.914	15.635	67.703	51.446	58.225	93.881
	Rel.Std.Dev:	1.616 %	87.764 %	40.989 %	83.236 %	58.545 %	83.493 %

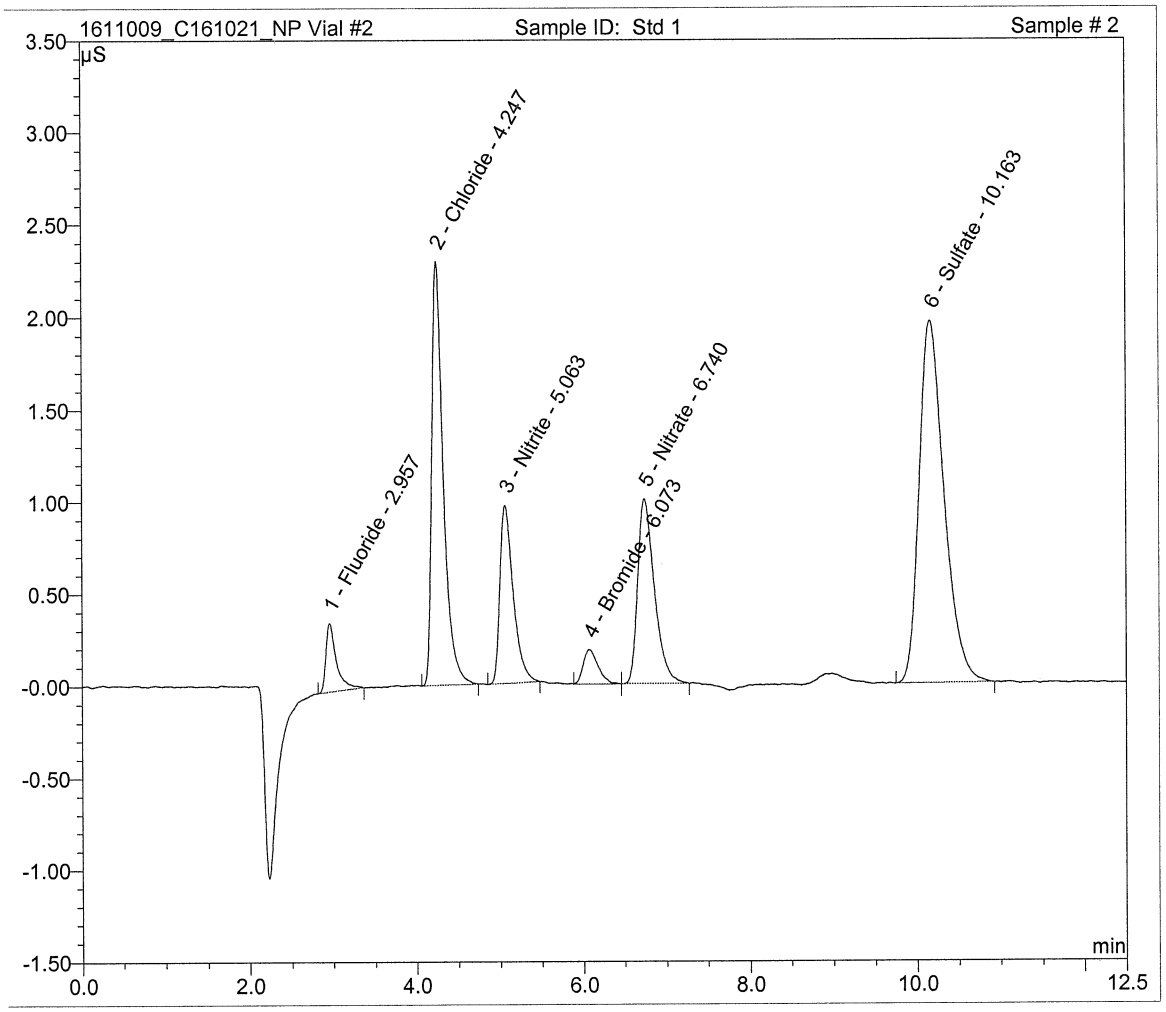
Sample Name:	**Std 0**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**1**
Inj. Date/Time:	**09.20.16 20:38**	*Run Number:*	**1**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L



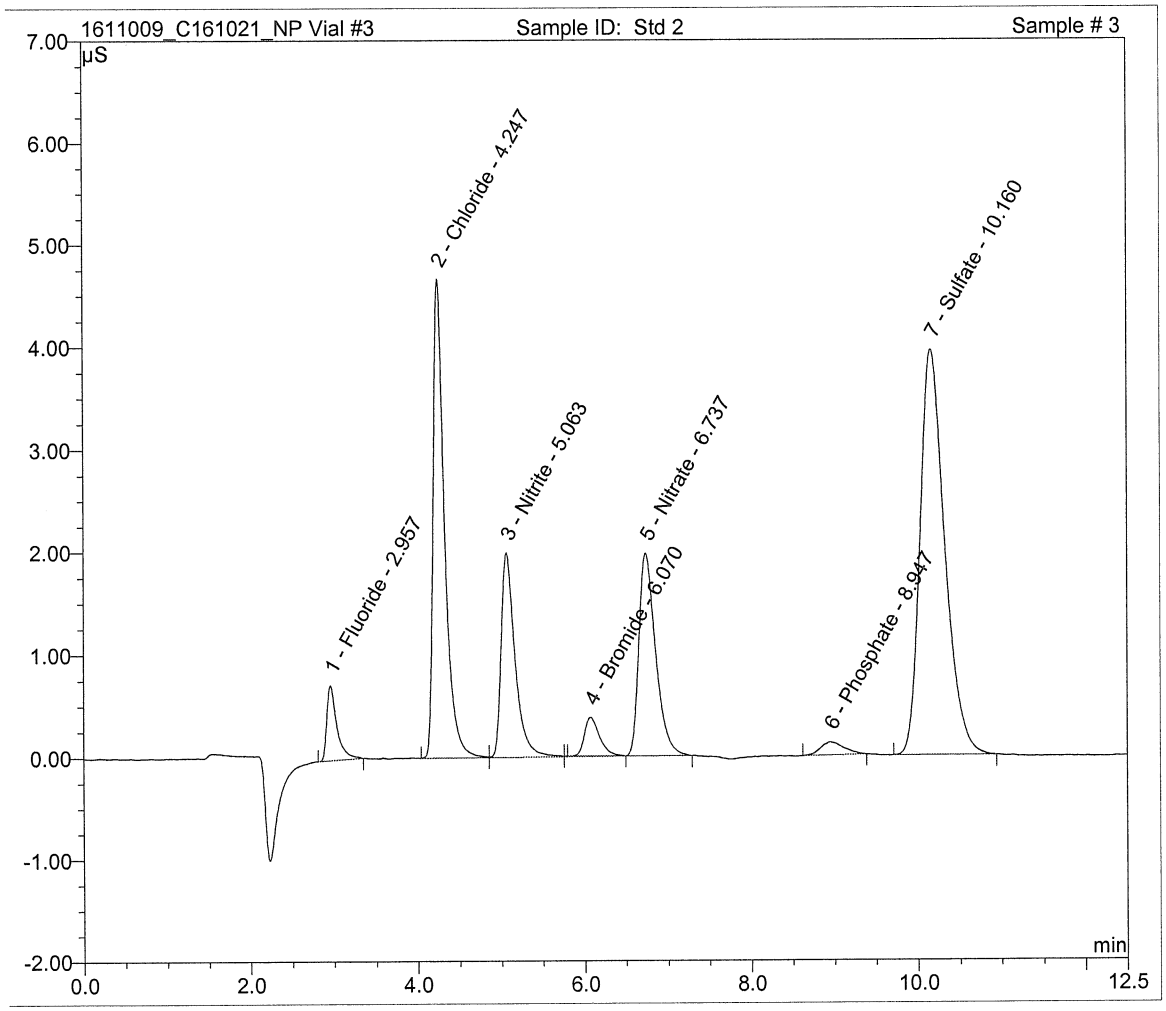
Sample Name:	**Std 1**	*Inj. Vol.:*	**25.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**2**
Inj. Date/Time:	**09.20.16 20:53**	*Run Number:*	**2**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.96	Fluoride	BMB	0.055	0.373	0.2267
2	4.25	Chloride	BMB	0.365	2.297	1.9970
3	5.06	Nitrite	BMB	0.180	0.966	0.4917
4	6.07	Bromide	BM	0.038	0.185	0.4823
5	6.74	Nitrate	MB	0.232	1.000	0.4997
6	10.16	Sulfate	BMB	0.682	1.963	5.2401



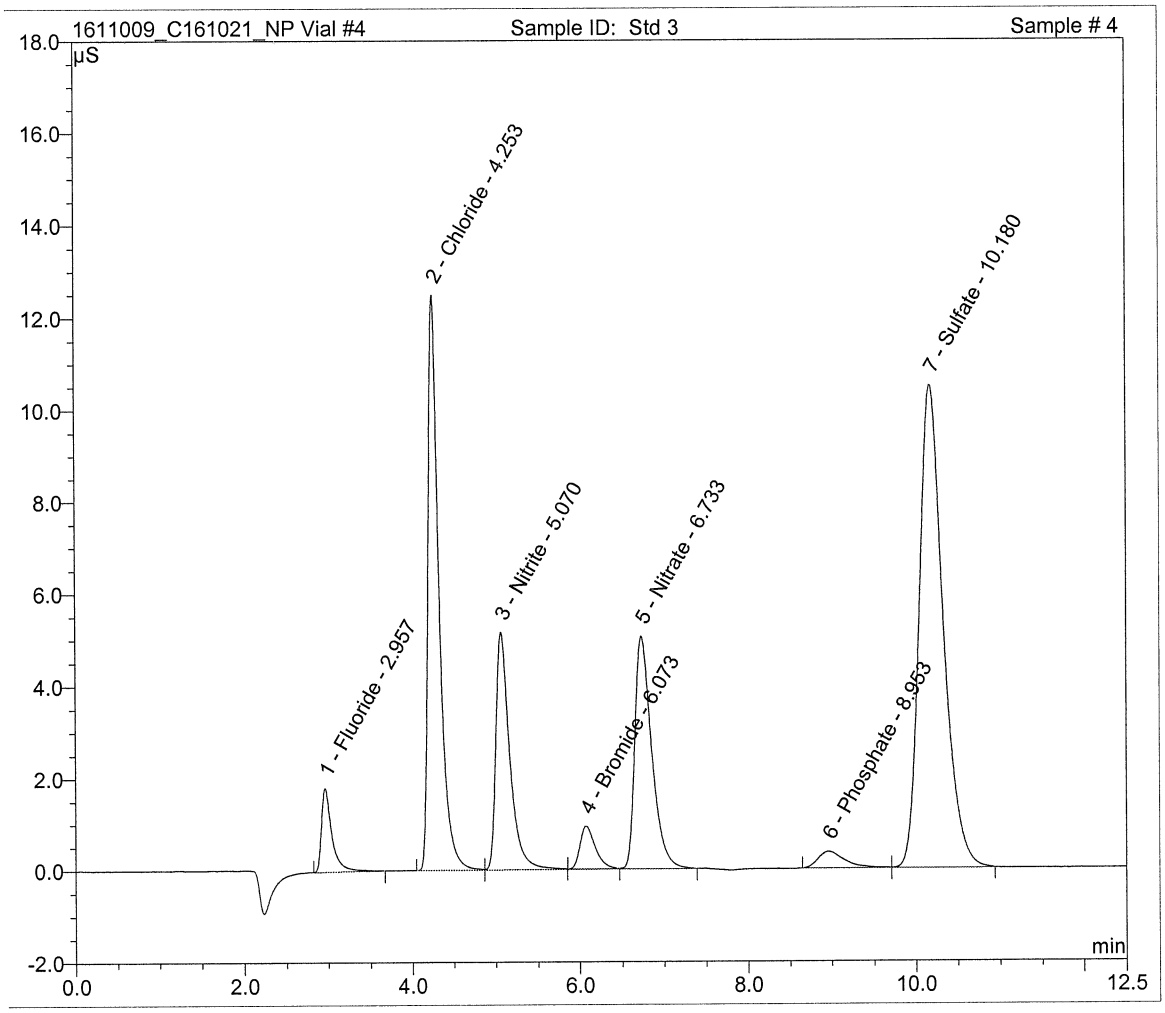
Sample Name:	**Std 2**	*Inj. Vol.:*	**25.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**3**
Inj. Date/Time:	**09.20.16 21:08**	*Run Number:*	**3**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.96	Fluoride	BMB	0.103	0.731	0.4224
2	4.25	Chloride	BM	0.737	4.667	3.9895
3	5.06	Nitrite	M	0.387	1.993	1.0213
4	6.07	Bromide	Ru	0.078	0.375	1.0027
5	6.74	Nitrate	MB	0.465	1.975	0.9944
6	8.95	Phosphate	BMB	0.041	0.127	0.3829
7	10.16	Sulfate	BMB	1.348	3.949	9.8754



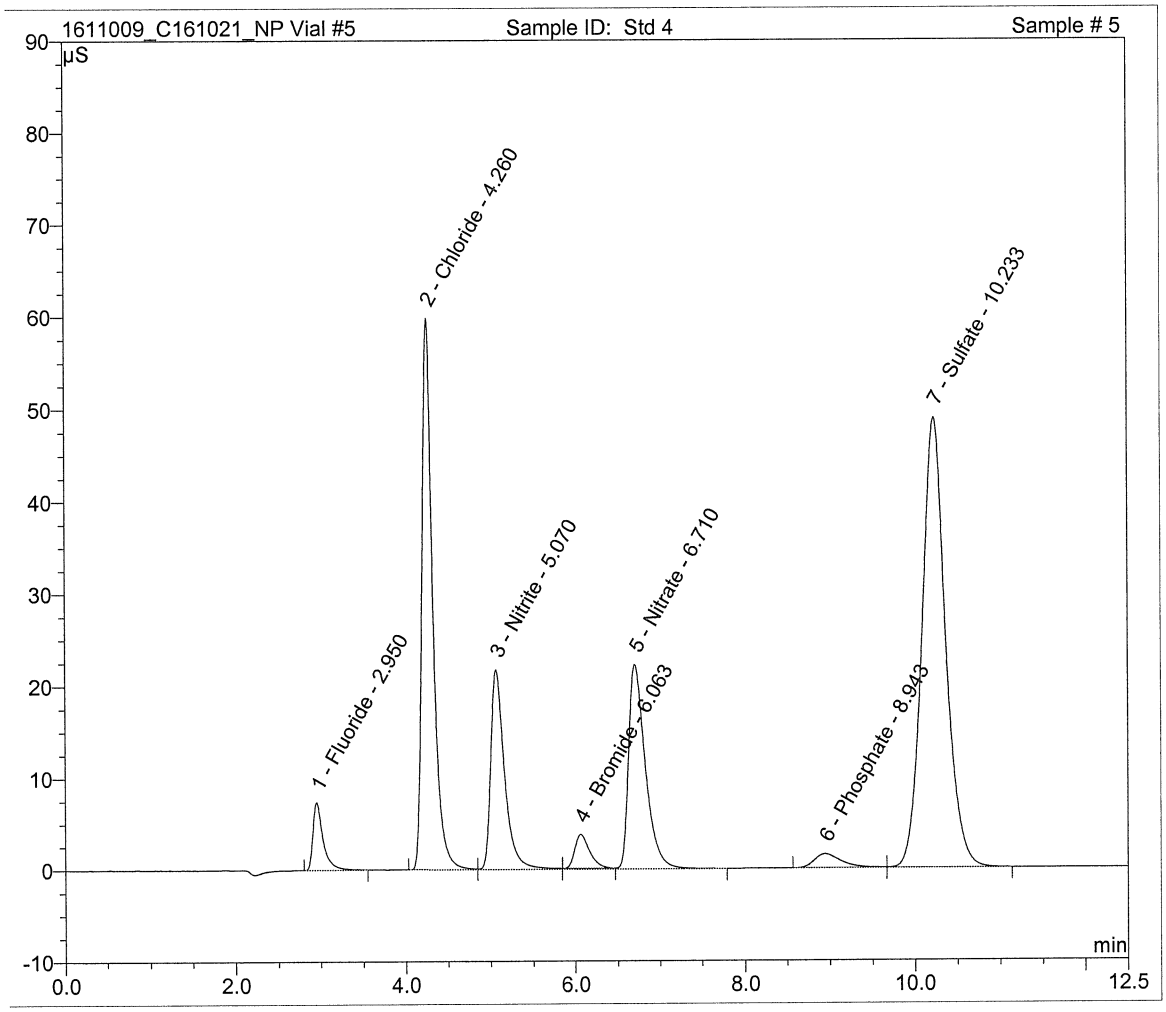
Sample Name:	**Std 3**	*Inj. Vol.:*	**25.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**4**
Inj. Date/Time:	**09.20.16 21:23**	*Run Number:*	**4**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.96	Fluoride	BMB	0.264	1.822	1.0666
2	4.25	Chloride	BM	1.914	12.493	10.0058
3	5.07	Nitrite	M	0.991	5.158	2.5134
4	6.07	Bromide	Ru	0.193	0.930	2.5036
5	6.73	Nitrate	MB	1.177	5.045	2.4733
6	8.95	Phosphate	BM	0.131	0.360	1.0690
7	10.18	Sulfate	MB	3.467	10.486	23.7674



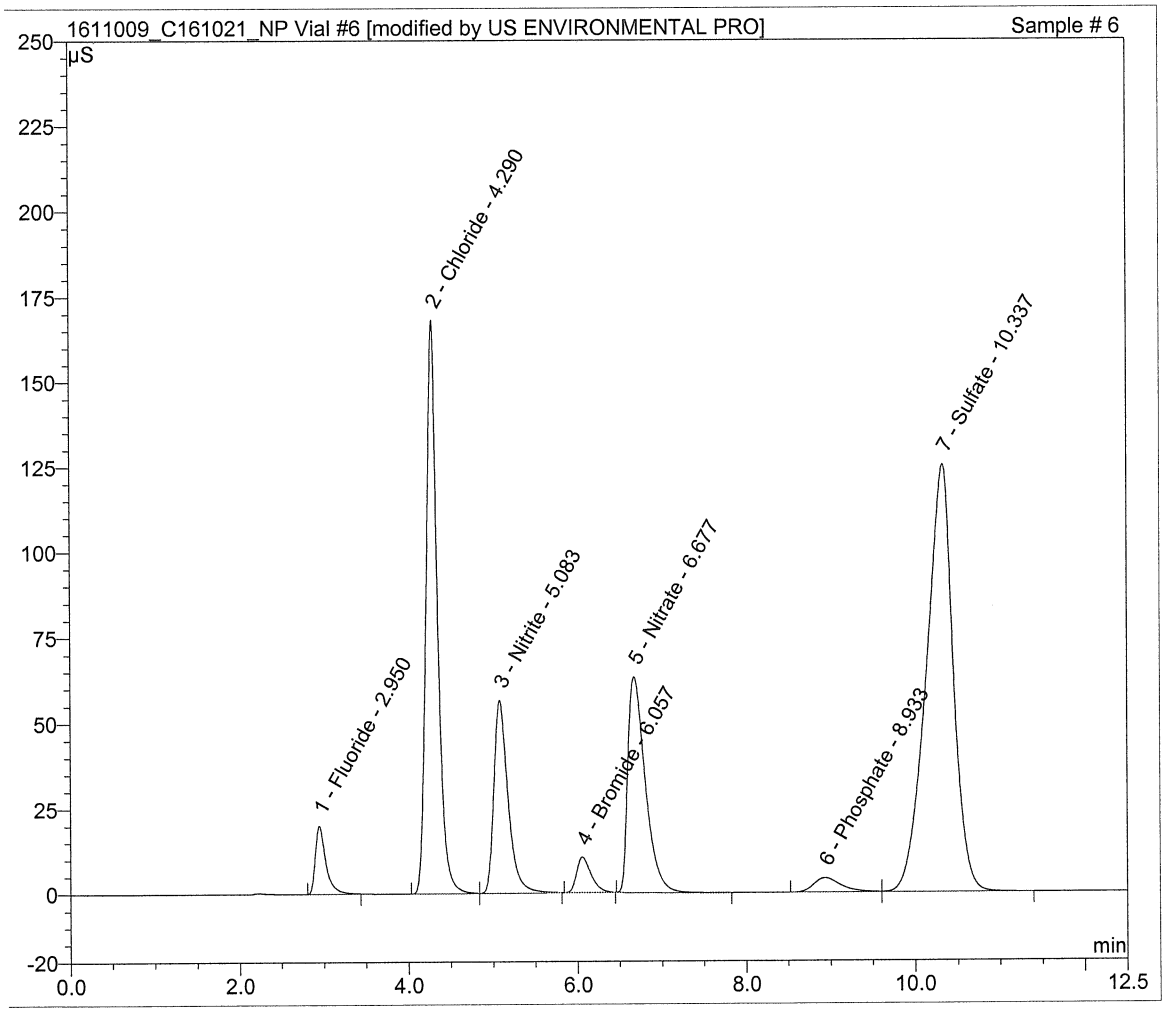
Sample Name:	**Std 4**	*Inj. Vol.:*	**25.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**5**
Inj. Date/Time:	**09.20.16 21:38**	*Run Number:*	**5**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.95	Fluoride	BMB	1.037	7.384	3.9724
2	4.26	Chloride	BM	8.790	59.805	39.9997
3	5.07	Nitrite	M	4.128	21.713	9.8428
4	6.06	Bromide	Ru	0.751	3.695	9.9997
5	6.71	Nitrate	MB	5.201	22.226	10.0092
6	8.94	Phosphate	BM	0.565	1.532	3.9424
7	10.23	Sulfate	MB	15.762	48.884	97.1243



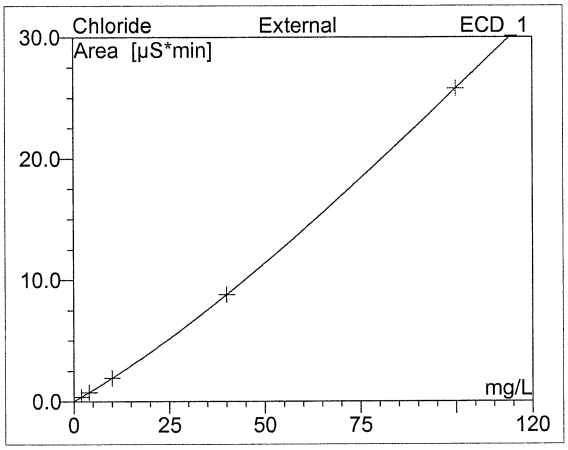
Sample Name:	**Std 5**	*Inj. Vol.:*	**25.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**6**
Inj. Date/Time:	**09.20.16 21:53**	*Run Number:*	**6**

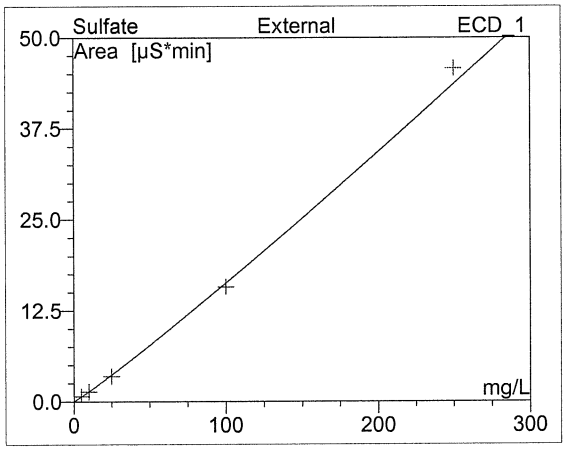
No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.95	Fluoride	BMB*	2.892	19.996	10.0031
2	4.29	Chloride	BMb*	25.771	168.140	100.0000
3	5.08	Nitrite	bMB*	11.004	56.496	25.1558
4	6.06	Bromide	BMB*	2.074	10.443	25.0000
5	6.68	Nitrate	BMB*	15.171	63.134	24.9990
6	8.93	Phosphate	BM	1.590	4.237	9.9141
7	10.34	Sulfate	MB	45.761	125.192	261.6031

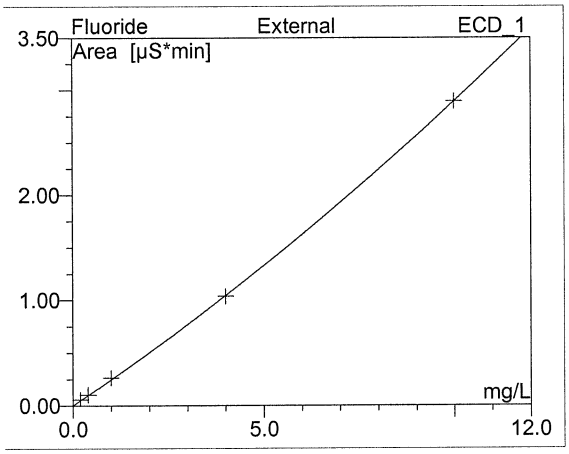


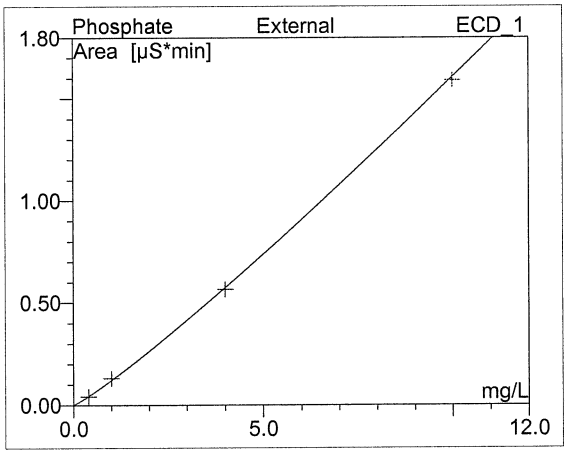
Calibration Batch Report

Sequence:	**1611009_C161021_NP**	Inj. Vol.:	**25.0**
Program:	**Program Anions Right**	Operator:	ESAT
Inj. Date/Time:	**09/20/16 21:53**	Run Time:	**12.50**



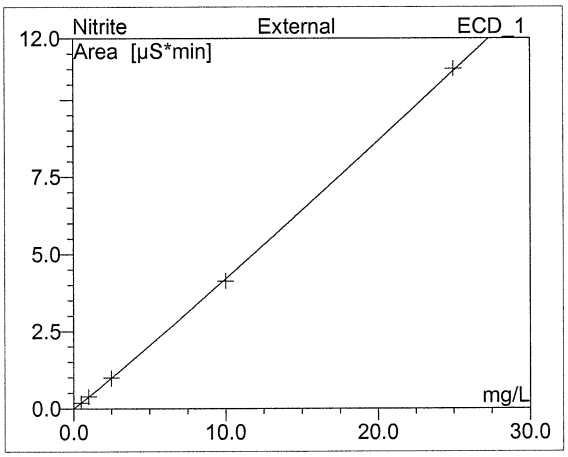


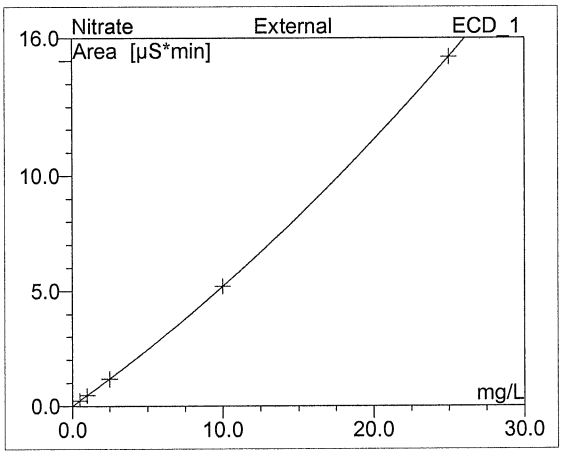


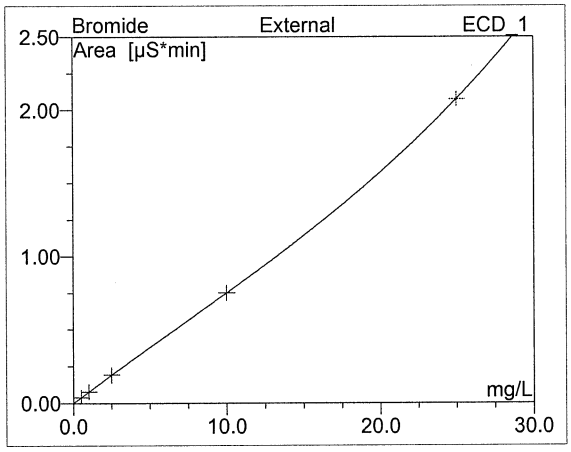


No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
1	2.95	Fluoride	Quad	5	0.000	0.242	0.005	99.9928
2	4.29	Chloride	Cubic	5	0.000	0.180	0.001	100.0000
3	5.08	Nitrite	Exp	5	0.379	1.045	0.000	99.9881
4	6.06	Bromide	Cubic	5	0.000	0.078	-0.001	99.9999
5	6.68	Nitrate	Quad	5	0.000	0.461	0.006	99.9999
6	8.93	Phosphate	Exp	4	0.121	1.122	0.000	99.9724
7	10.34	Sulfate	Exp	5	0.115	1.076	0.000	99.6543
AVERAGE:					0.0878	0.6007	0.0016	99.9439

Sequence:	**1611009_C161021_NP**	*Inj. Vol.:*	**25.0**
Program:	**Program Anions Right**	*Operator:*	**n.a.**
Inj. Date/Time:	**09/20/16 21:53**	*Run Time:*	**12.50**



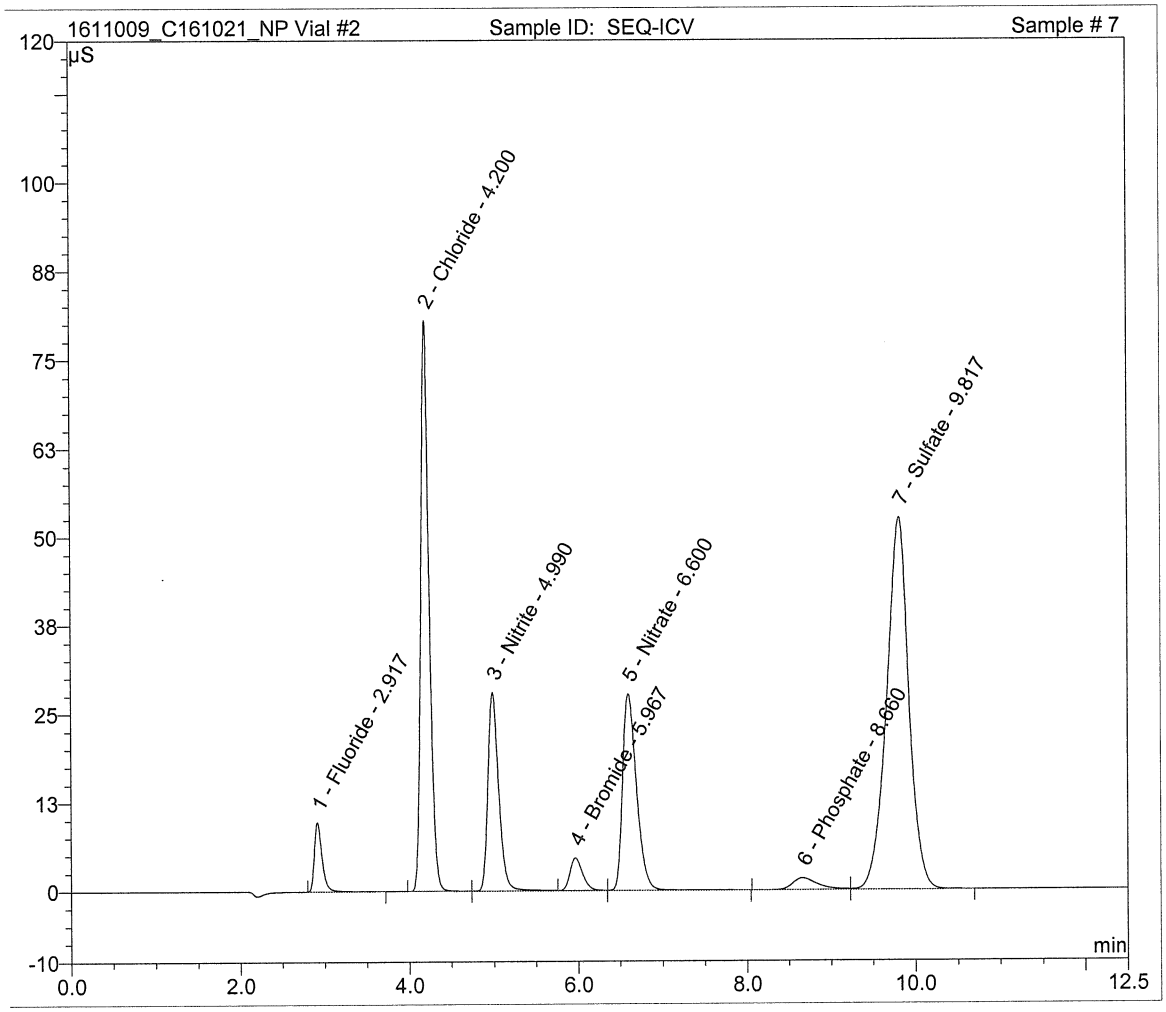




No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
1	2.95	Fluoride	Quad	5	0.000	0.242	0.005	99.9928
2	4.29	Chloride	Cubic	5	0.000	0.180	0.001	100.0000
3	5.08	Nitrite	Exp	5	0.379	1.045	0.000	99.9881
4	6.06	Bromide	Cubic	5	0.000	0.078	-0.001	99.9999
5	6.68	Nitrate	Quad	5	0.000	0.461	0.006	99.9999
6	8.93	Phosphate	Exp	4	0.121	1.122	0.000	99.9724
7	10.34	Sulfate	Exp	5	0.115	1.076	0.000	99.6543
AVERAGE:					0.0878	0.6007	0.0016	99.9439

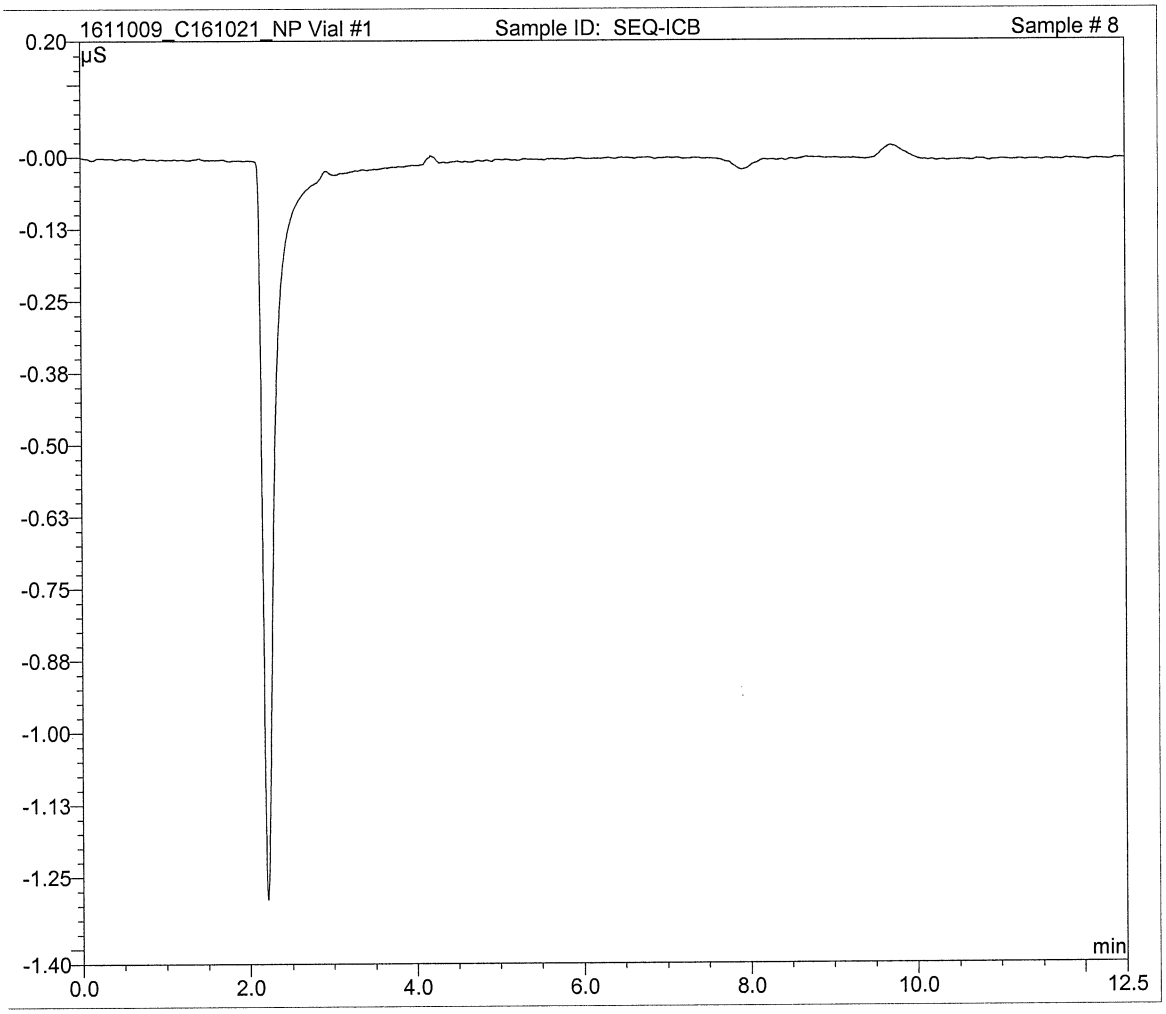
Sample Name:	**SEQ-ICV**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**2**
Inj. Date/Time:	**11.10.16 14:15**	*Run Number:*	**7**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.92	Fluoride	BMB	1.057	9.789	4.0469
2	4.20	Chloride	BM	9.179	80.540	41.5257
3	4.99	Nitrite	M	4.226	27.989	10.0665
4	5.97	Bromide	Rd	0.779	4.586	10.3717
5	6.60	Nitrate	MB	5.354	27.735	10.2728
6	8.66	Phosphate	BM	0.589	1.673	4.0873
7	9.82	Sulfate	MB	15.849	52.599	97.6179



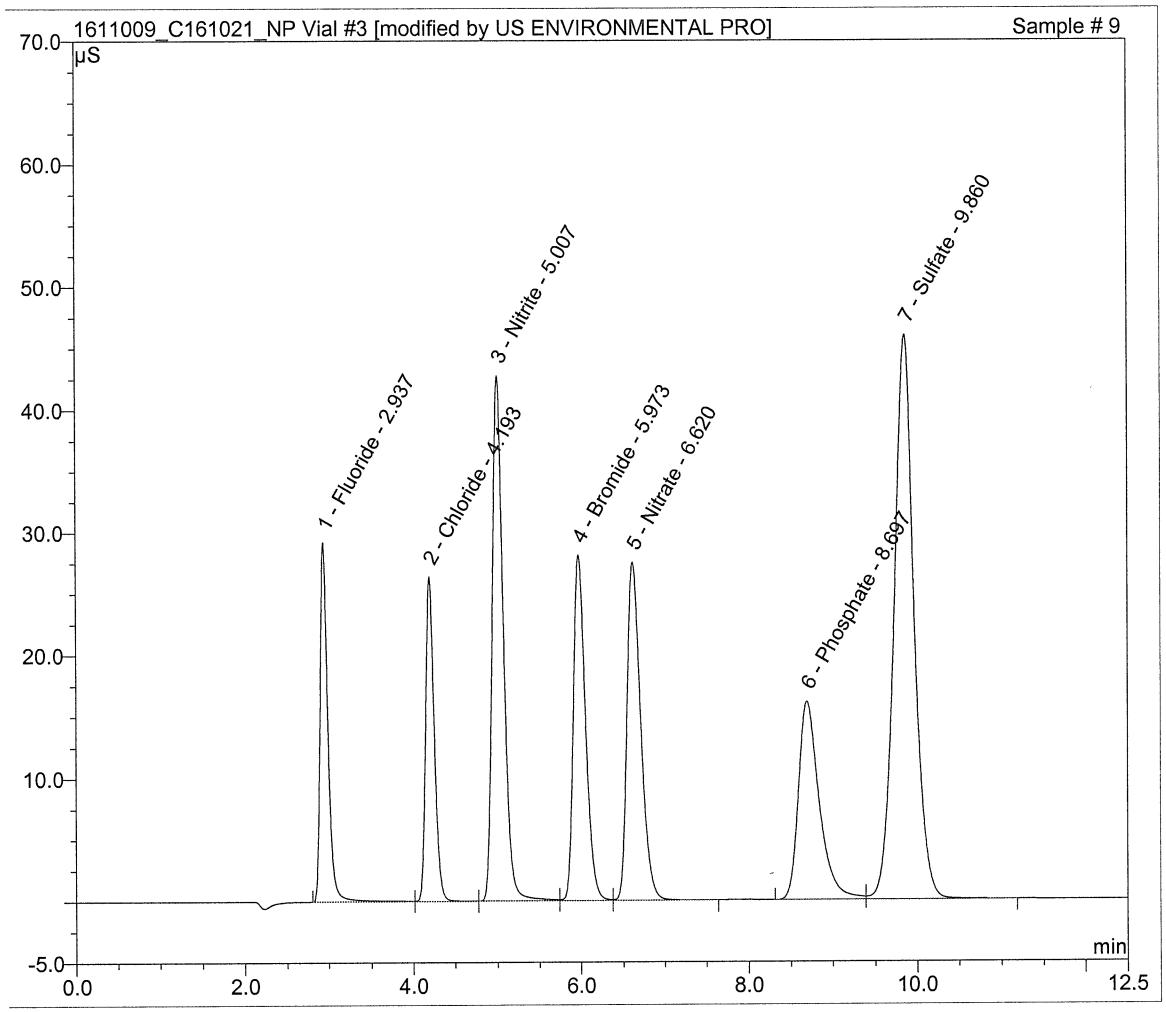
Sample Name:	**SEQ-ICB**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**1**
Inj. Date/Time:	**11.10.16 14:30**	*Run Number:*	**8**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L



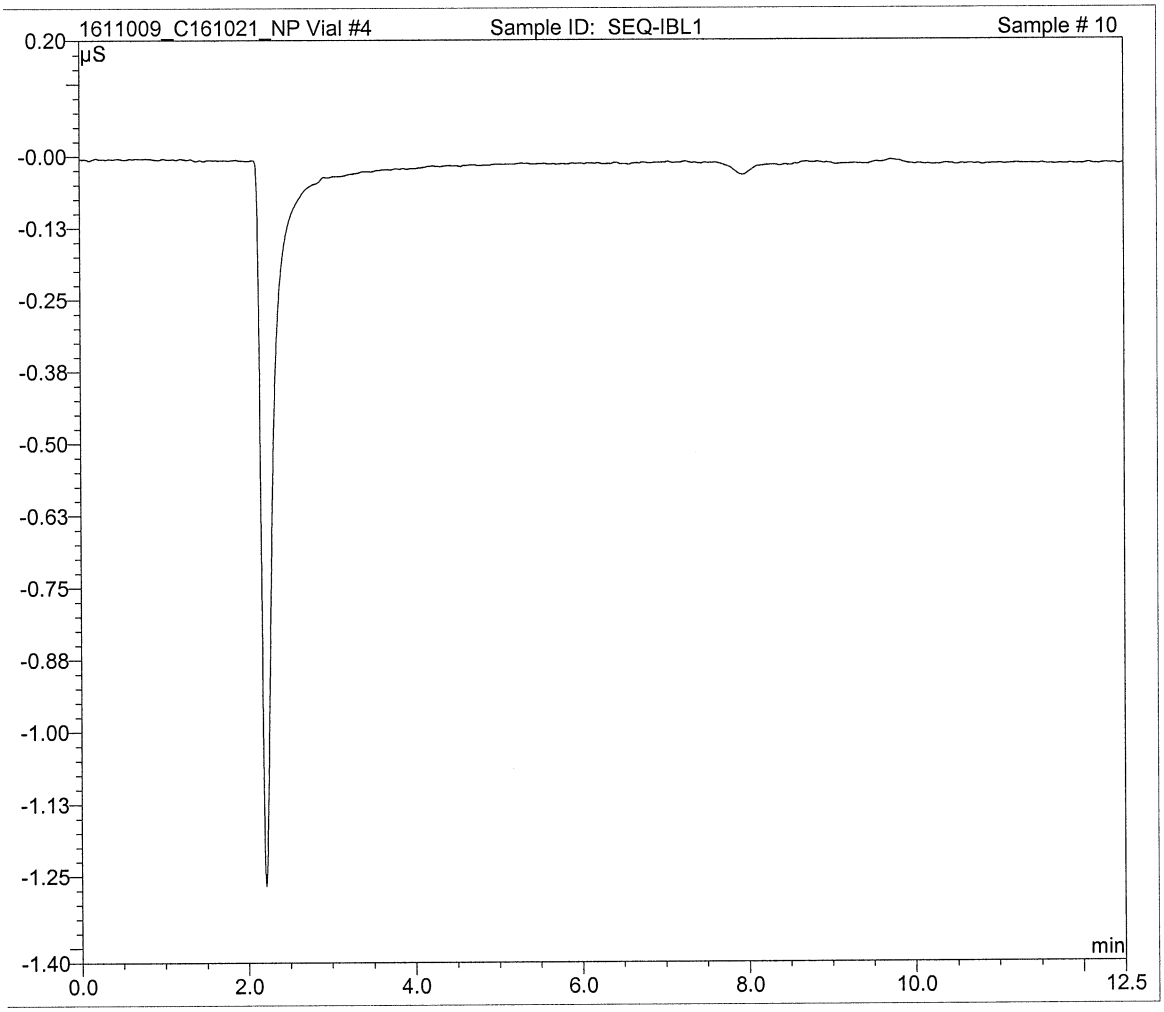
Sample Name:	**SEQ-SCV1**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**3**
Inj. Date/Time:	**11.10.16 14:45**	*Run Number:*	**9**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.94	Fluoride	BM *	3.190	29.216	10.8787
2	4.19	Chloride	M *	3.149	26.410	15.9466
3	5.01	Nitrite	M *	6.629	42.756	15.4885
4	5.97	Bromide	M *	4.728	28.120	42.4023
5	6.62	Nitrate	MB*	5.315	27.508	10.2052
6	8.70	Phosphate	BM	4.678	16.101	25.9451
7	9.86	Sulfate	MB	12.539	45.946	78.5146



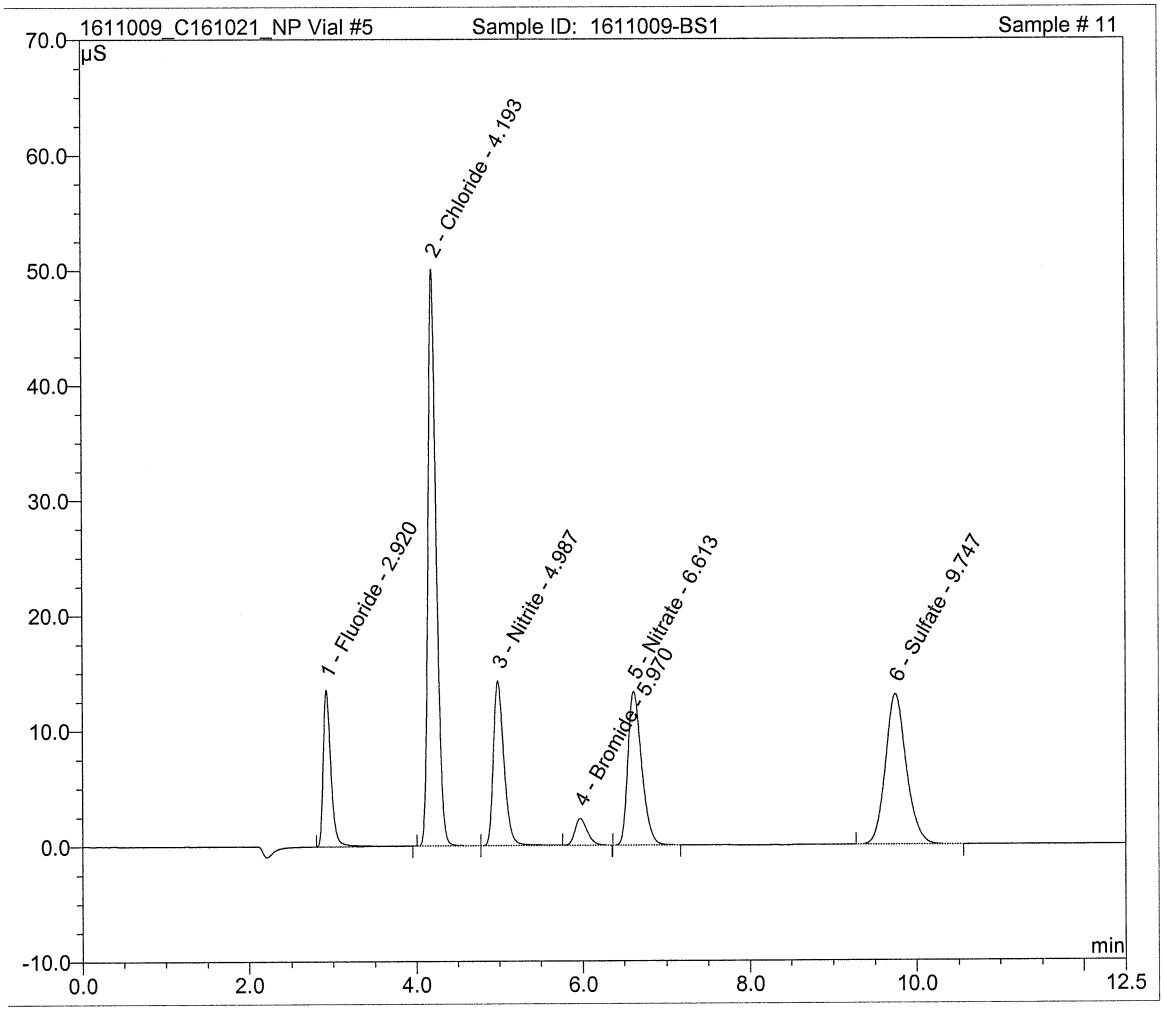
Sample Name:	**SEQ-IBL1**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**4**
Inj. Date/Time:	**11.10.16 15:00**	*Run Number:*	**10**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L



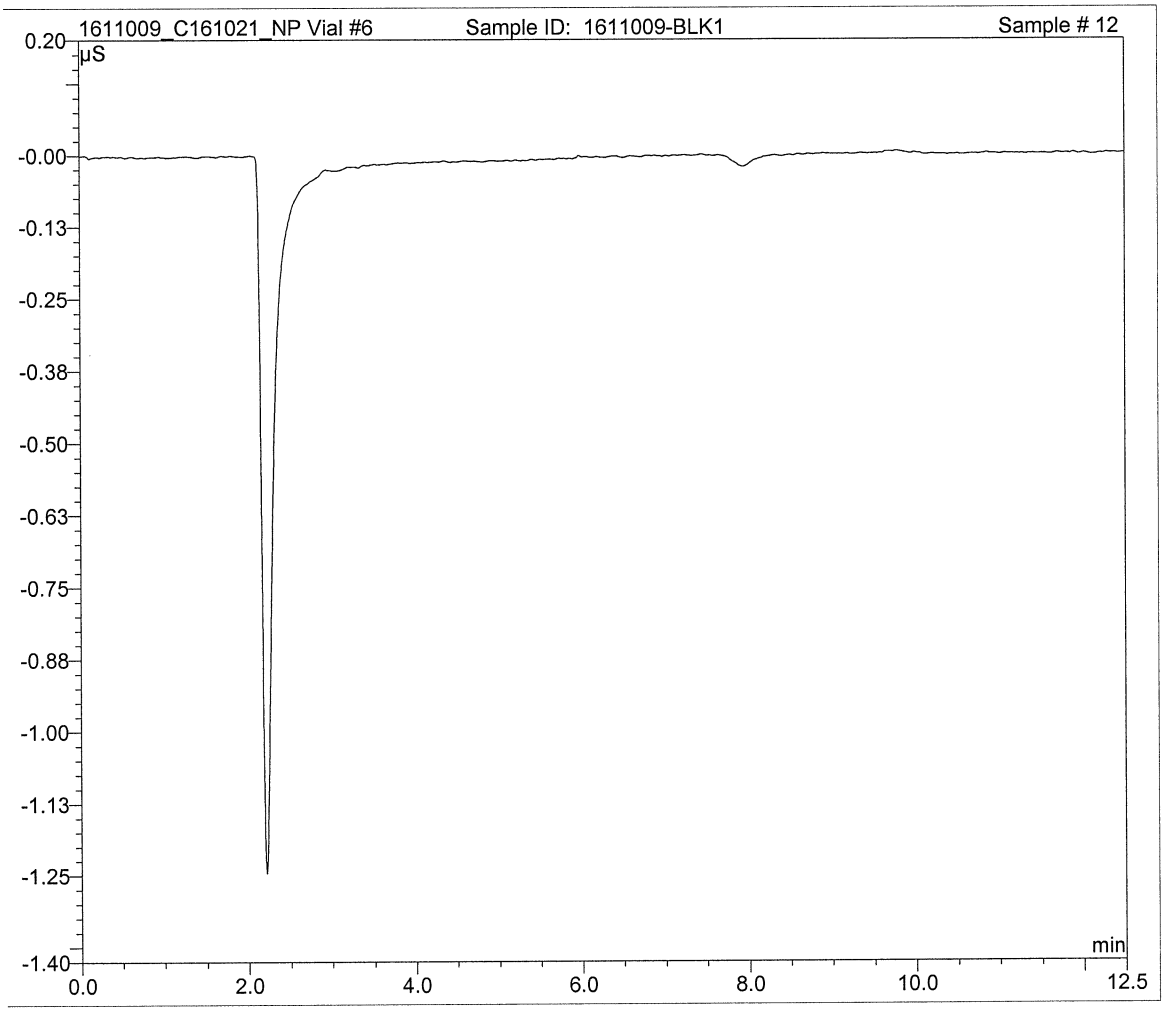
Sample Name:	**1611009-BS1**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**5**
Inj. Date/Time:	**11.10.16 15:16**	*Run Number:*	**11**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.92	Fluoride	BMB	1.442	13.567	5.3907
2	4.19	Chloride	BM	5.699	50.061	27.3314
3	4.99	Nitrite	MB	2.132	14.265	5.2293
4	5.97	Bromide	Rd	0.396	2.310	5.2281
5	6.61	Nitrate	BMB	2.530	13.303	5.1490
6	9.75	Sulfate	BMB	3.744	13.049	25.5243



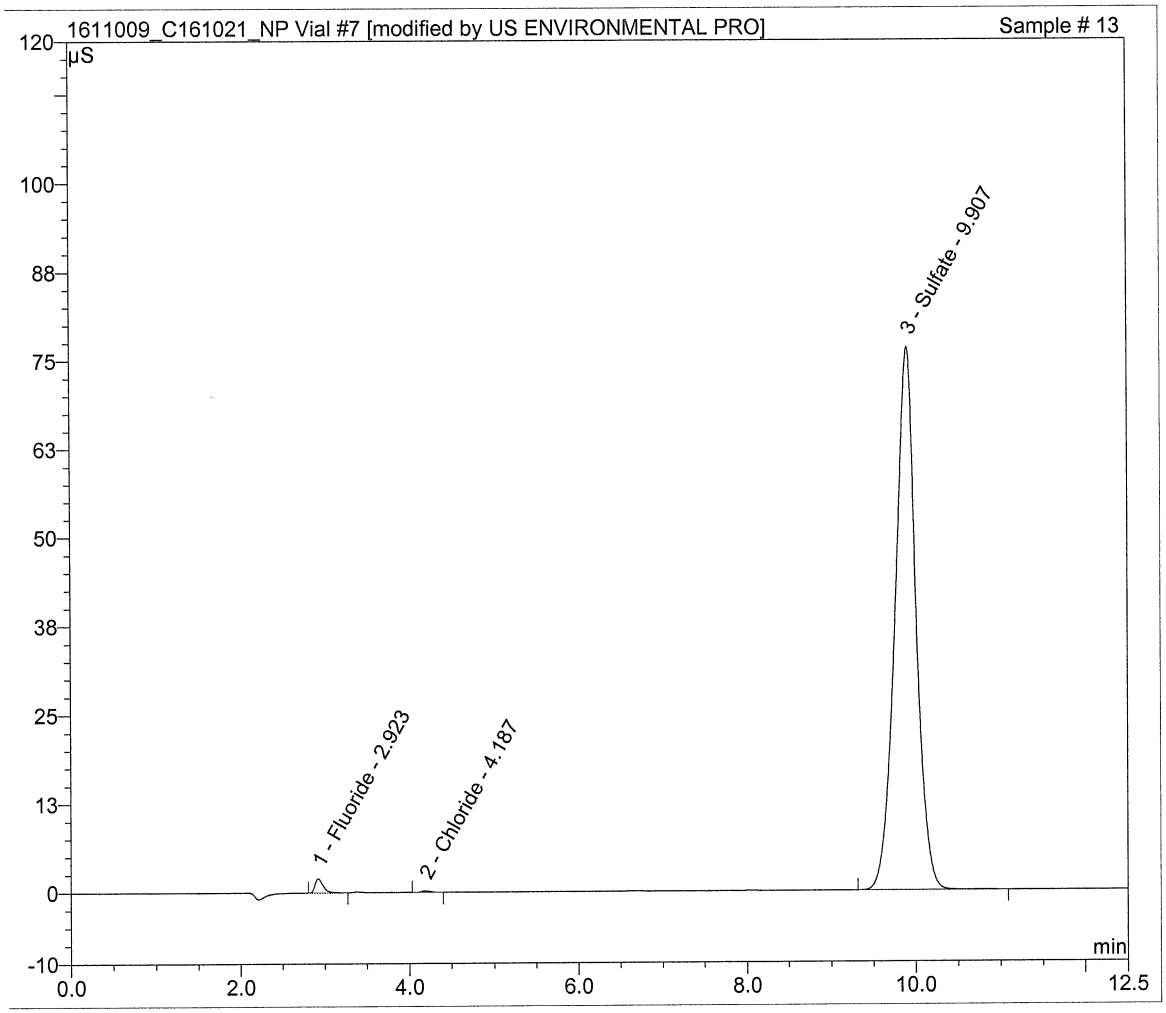
Sample Name:	**1611009-BLK1**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**6**
Inj. Date/Time:	**11.10.16 15:31**	*Run Number:*	**12**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L



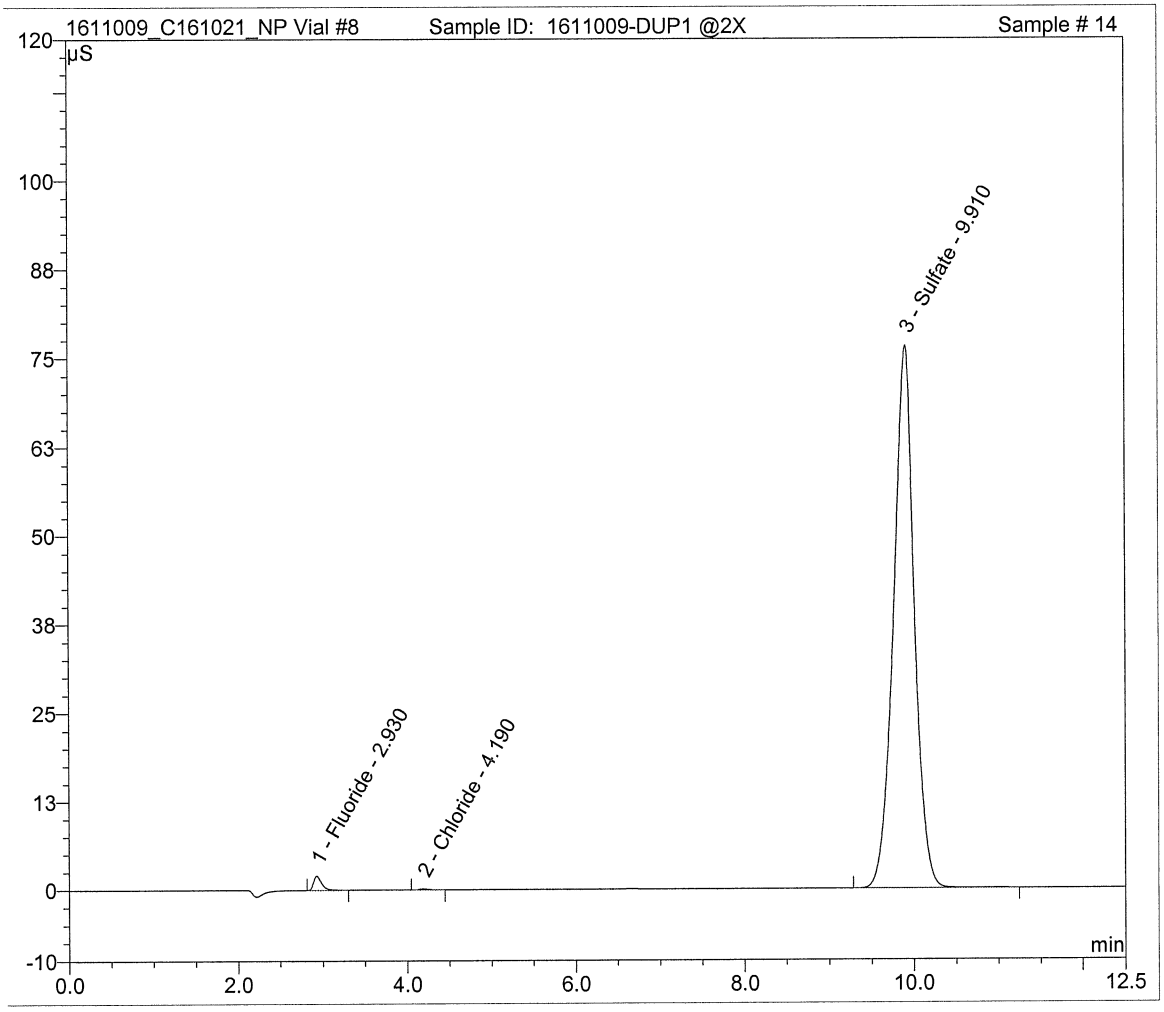
Sample Name:	**C161021-01 @2X**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**7**
Inj. Date/Time:	**11.10.16 15:46**	*Run Number:*	**13**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.92	Fluoride	BMB*	0.225	2.010	0.9116
2	4.19	Chloride	BMB	0.026	0.208	0.1458
3	9.91	Sulfate	BMB	21.614	76.627	130.2559



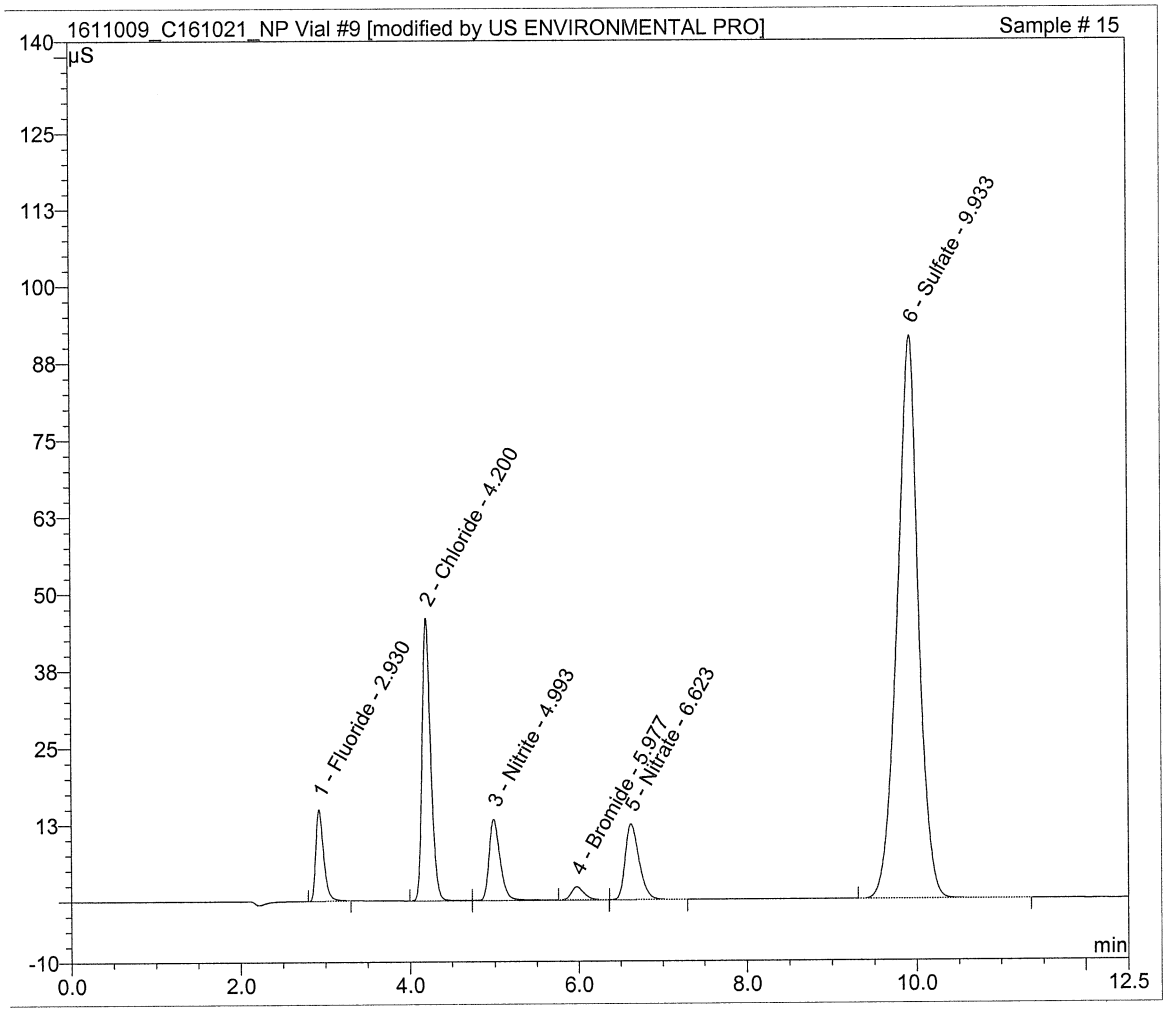
Sample Name:	**1611009-DUP1 @2X**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**8**
Inj. Date/Time:	**11.10.16 16:01**	*Run Number:*	**14**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.93	Fluoride	BMB	0.225	2.014	0.9108
2	4.19	Chloride	BMB	0.018	0.143	0.1018
3	9.91	Sulfate	BMB	21.684	76.589	130.6484



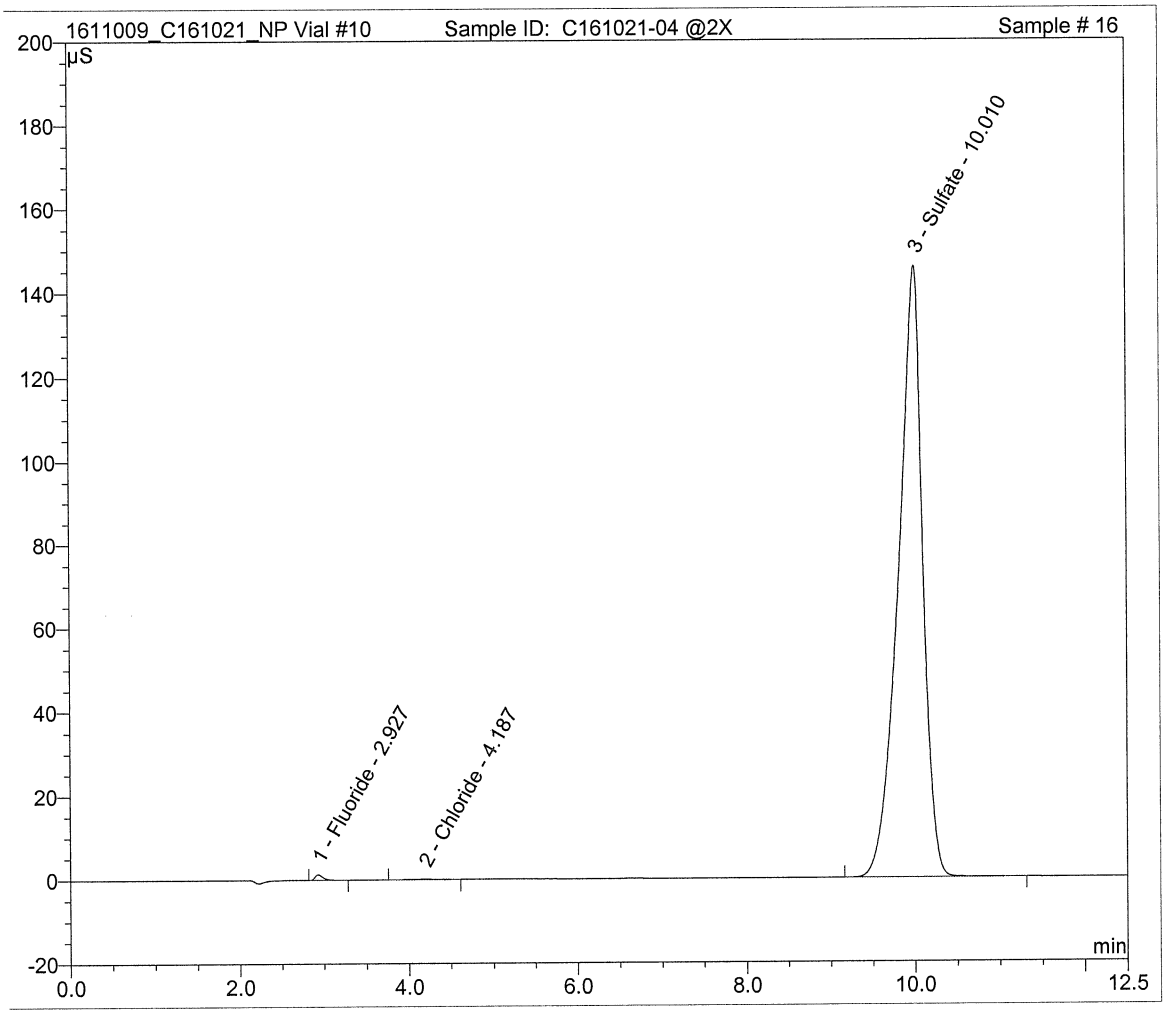
Sample Name:	**1611009-MS1 @2X**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**9**
Inj. Date/Time:	**11.10.16 16:16**	*Run Number:*	**15**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.93	Fluoride	BMB*	1.609	14.961	5.9548
2	4.20	Chloride	BM *	5.334	45.986	25.7622
3	4.99	Nitrite	M *	2.027	13.261	4.9833
4	5.98	Bromide	Rd	0.374	2.136	4.9230
5	6.62	Nitrate	MB*	2.375	12.380	4.8508
6	9.93	Sulfate	BMB	26.433	91.577	157.0550



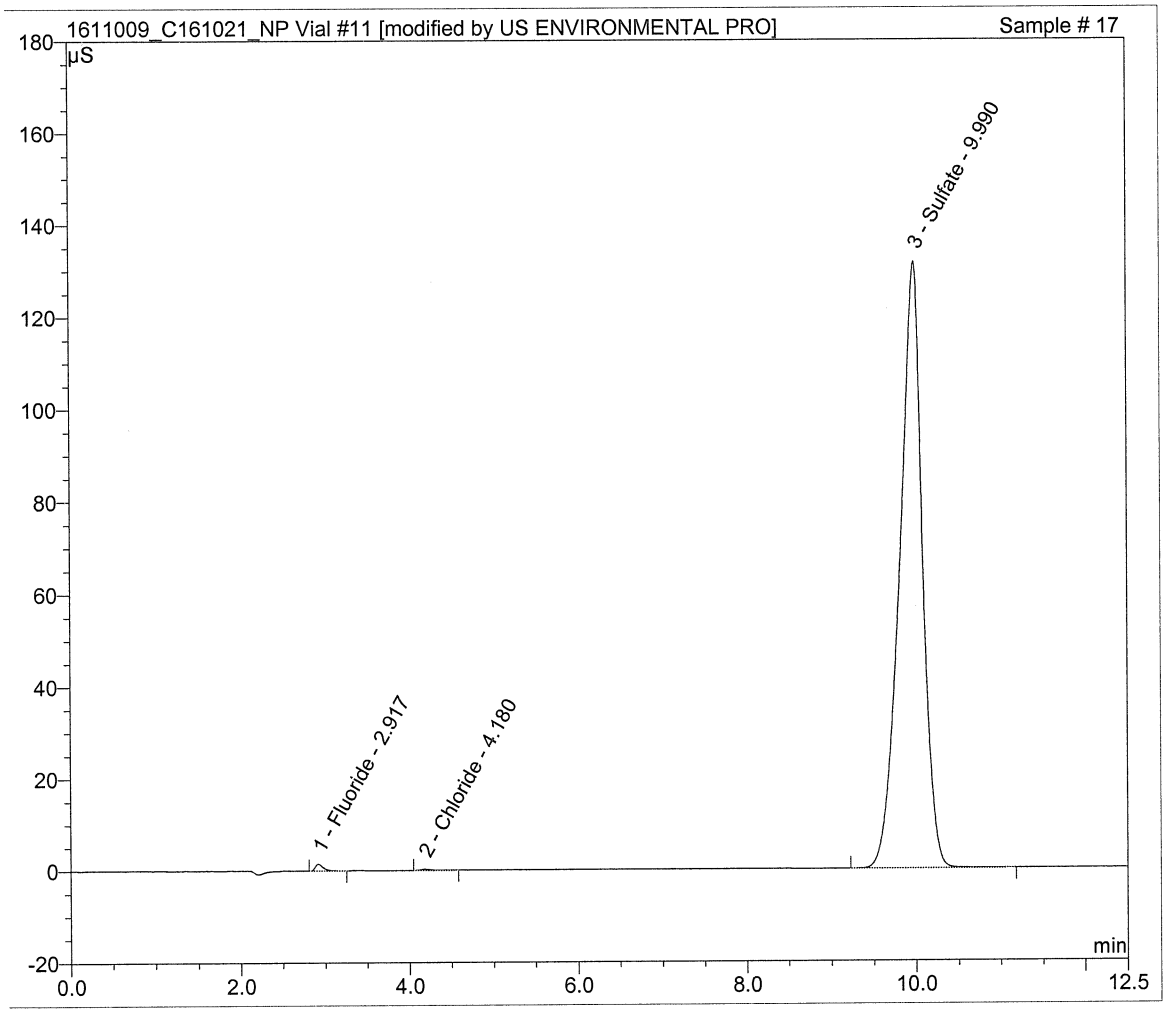
Sample Name:	**C161021-04 @2X**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**10**
Inj. Date/Time:	**11.10.16 16:31**	*Run Number:*	**16**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.93	Fluoride	BMB	0.155	1.358	0.6333
2	4.19	Chloride	BMB	0.025	0.144	0.1395
3	10.01	Sulfate	BMB	48.005	145.960	273.5039



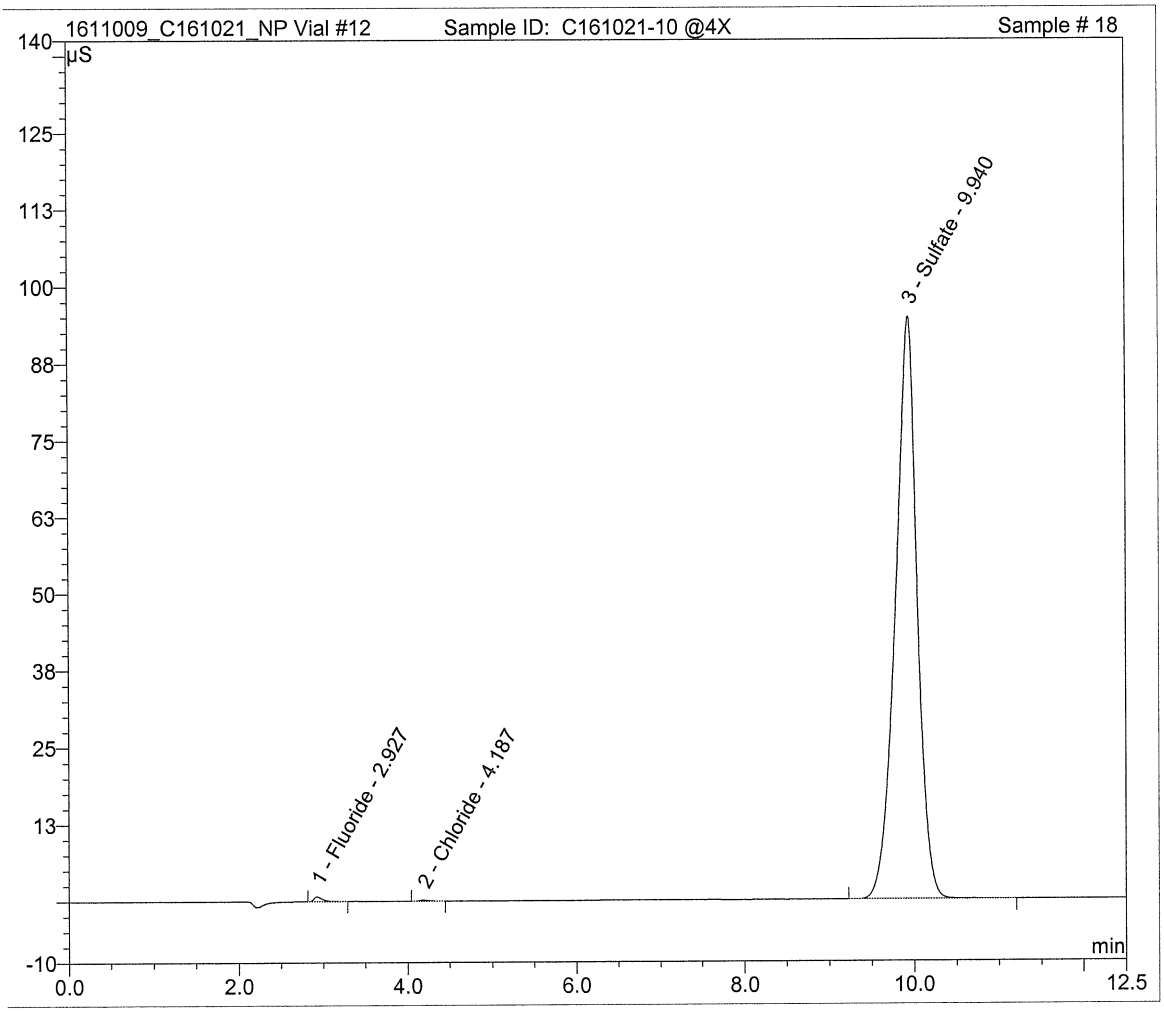
Sample Name:	**C161021-07 @2X**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**11**
Inj. Date/Time:	**11.10.16 16:46**	*Run Number:*	**17**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.92	Fluoride	BMB*	0.167	1.476	0.6817
2	4.18	Chloride	BMB	0.034	0.246	0.1858
3	9.99	Sulfate	BMB	40.482	131.632	233.4248



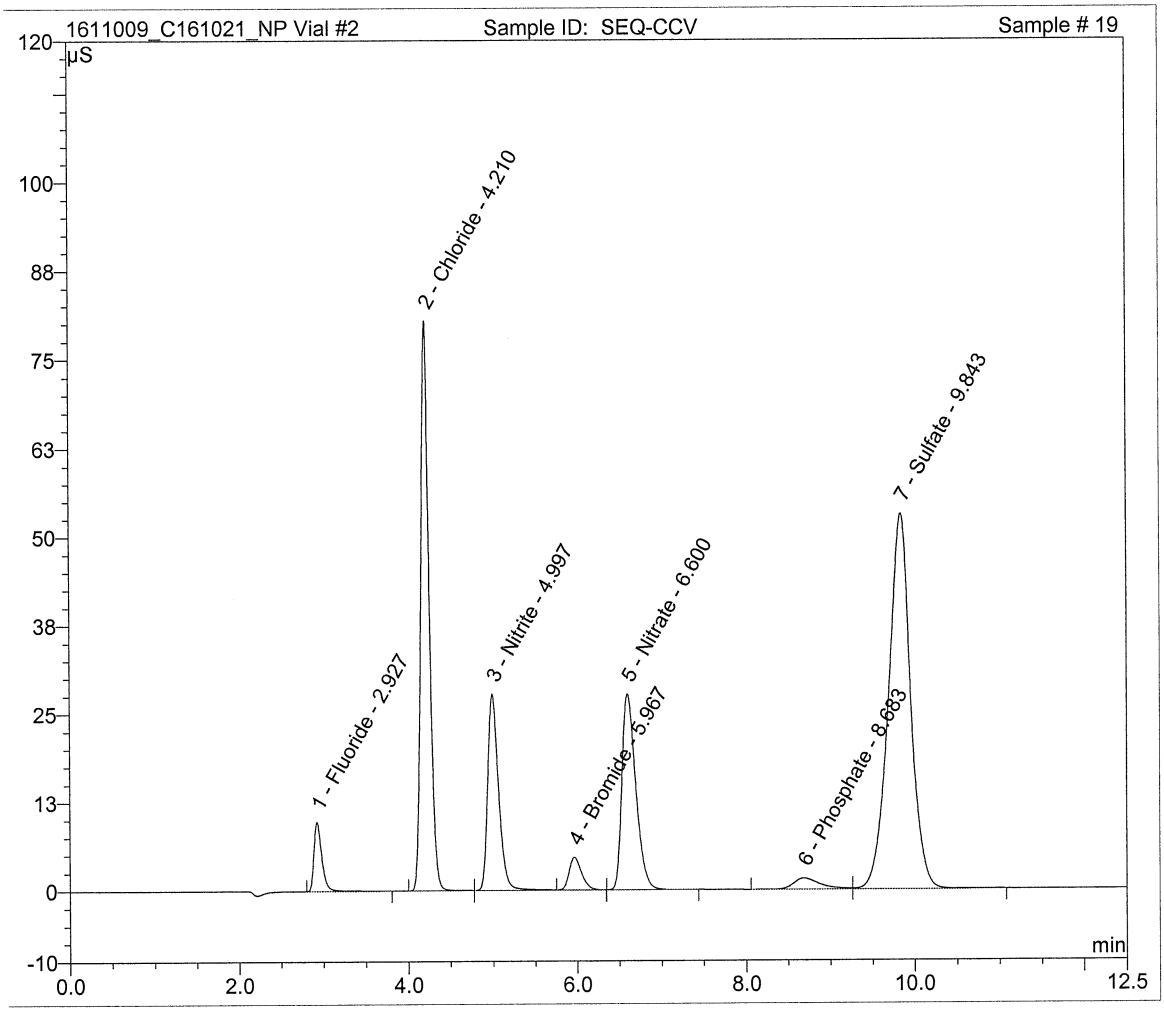
Sample Name:	**C161021-10 @4X**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**12**
Inj. Date/Time:	**11.10.16 17:01**	*Run Number:*	**18**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.93	Fluoride	BMB	0.096	0.802	0.3917
2	4.19	Chloride	BMB	0.019	0.152	0.1069
3	9.94	Sulfate	BMB	27.909	94.812	165.1953



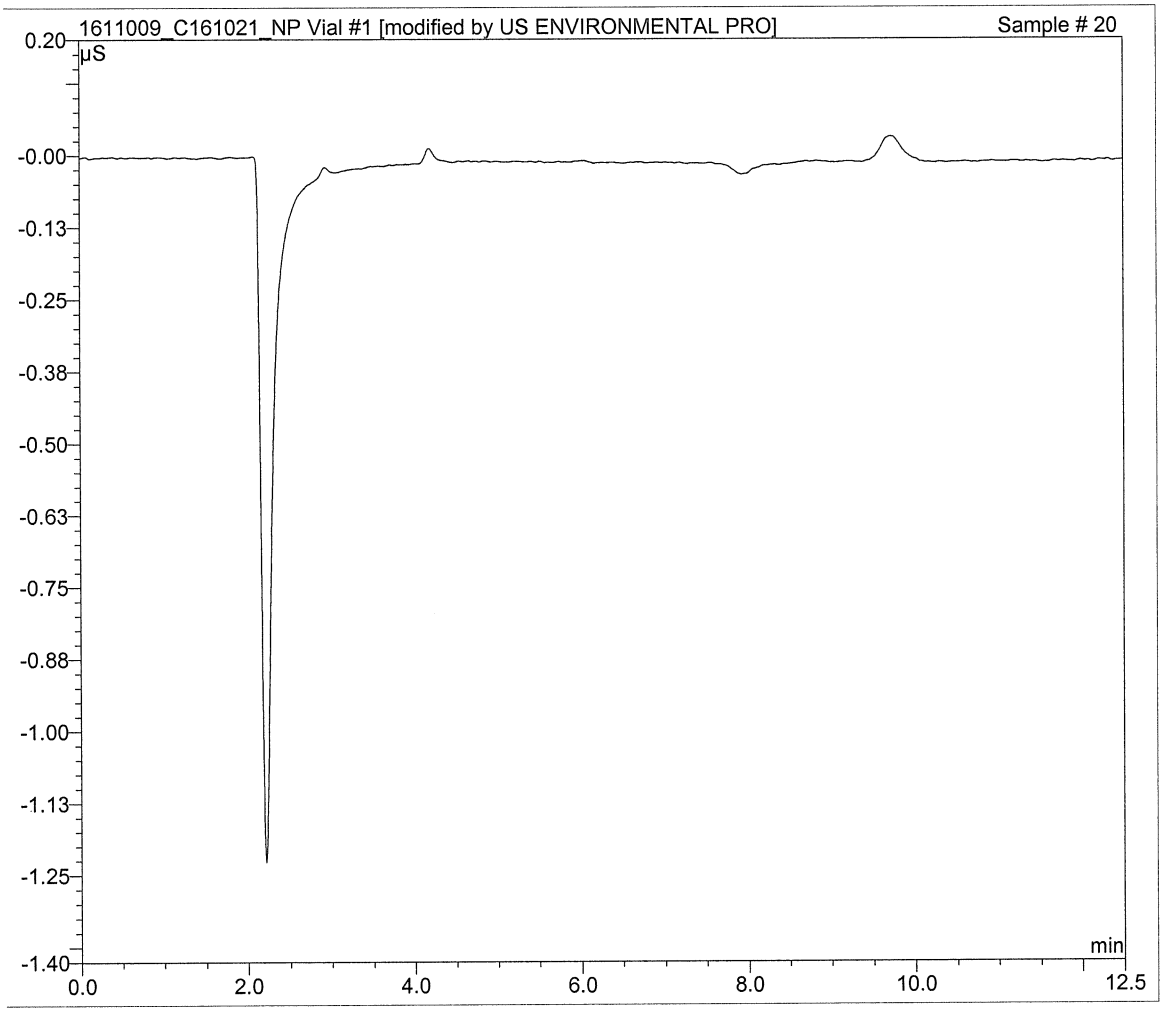
Sample Name:	**SEQ-CCV**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**2**
Inj. Date/Time:	**11.10.16 17:16**	*Run Number:*	**19**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.93	Fluoride	BMB	1.072	9.764	4.0973
2	4.21	Chloride	BM	9.231	80.449	41.7318
3	5.00	Nitrite	M	4.201	27.742	10.0086
4	5.97	Bromide	Rd	0.784	4.583	10.4362
5	6.60	Nitrate	MB	5.290	27.654	10.1633
6	8.68	Phosphate	BM	0.576	1.570	4.0103
7	9.84	Sulfate	MB	16.006	53.101	98.5194



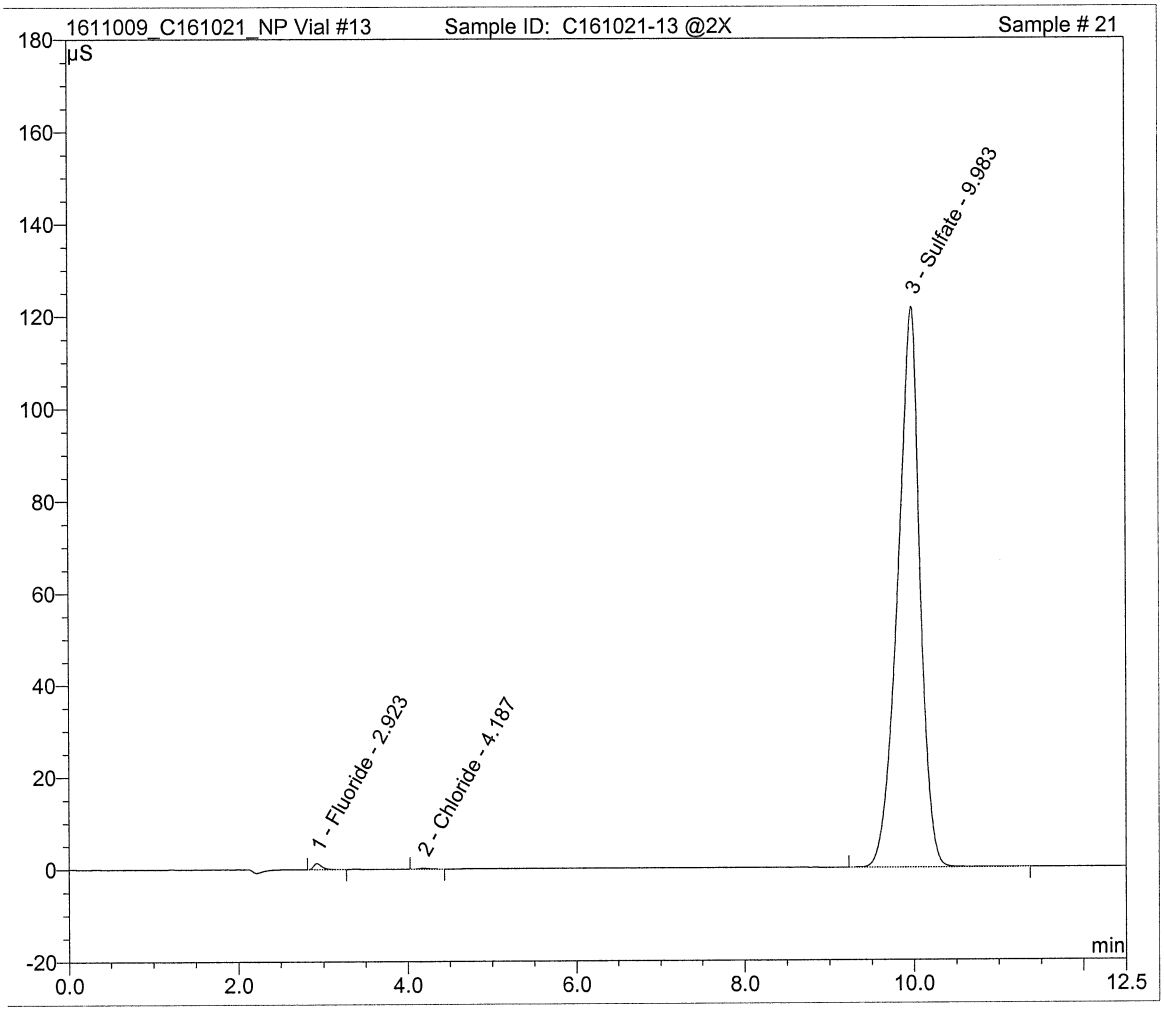
Sample Name:	**SEQ-CCB**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**1**
Inj. Date/Time:	**11.10.16 17:31**	*Run Number:*	**20**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L



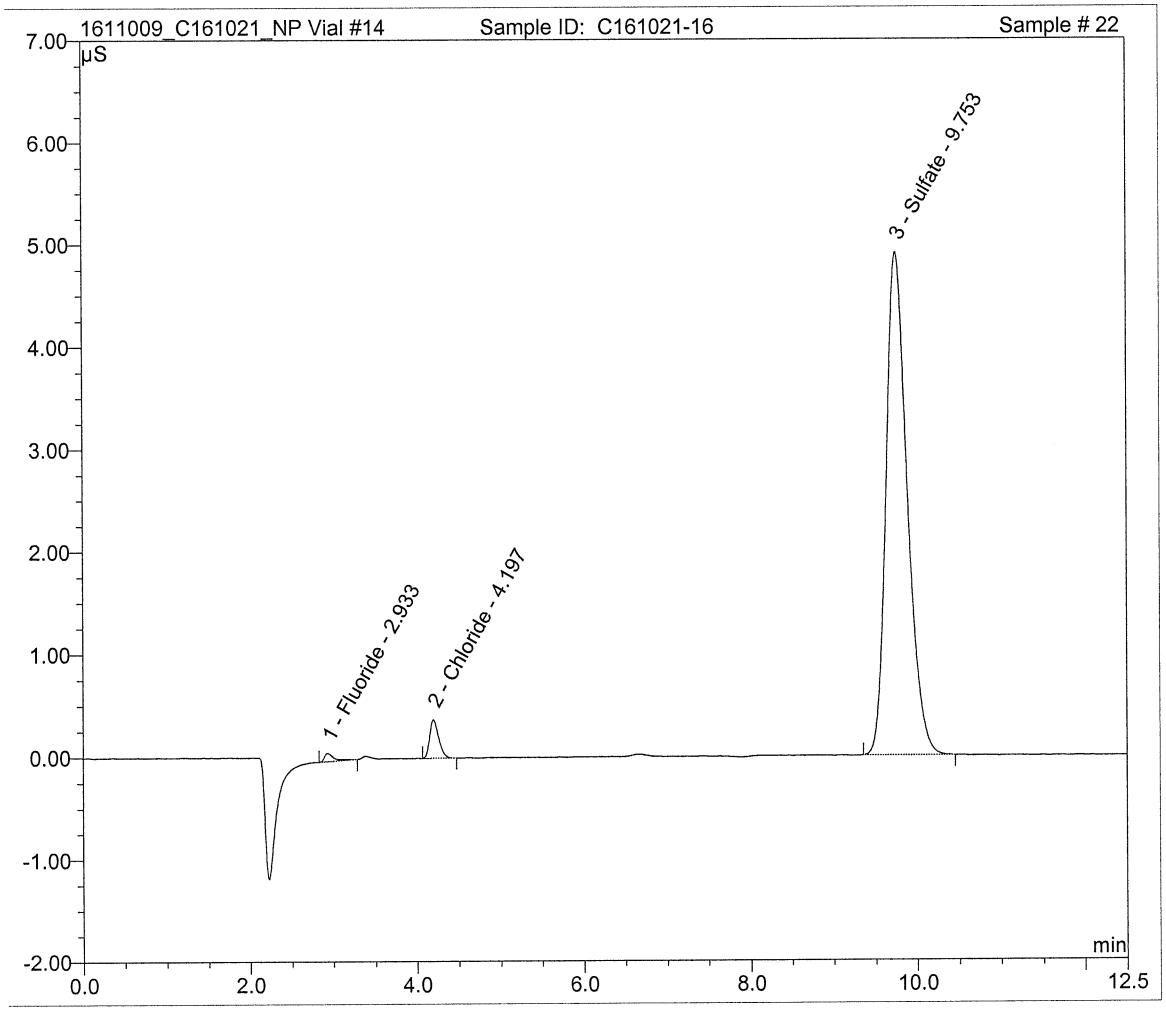
Sample Name:	**C161021-13 @2X**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**13**
Inj. Date/Time:	**11.10.16 17:46**	*Run Number:*	**21**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.92	Fluoride	BMB	0.149	1.317	0.6092
2	4.19	Chloride	BMB	0.023	0.176	0.1265
3	9.98	Sulfate	BMB	36.789	121.676	213.5631



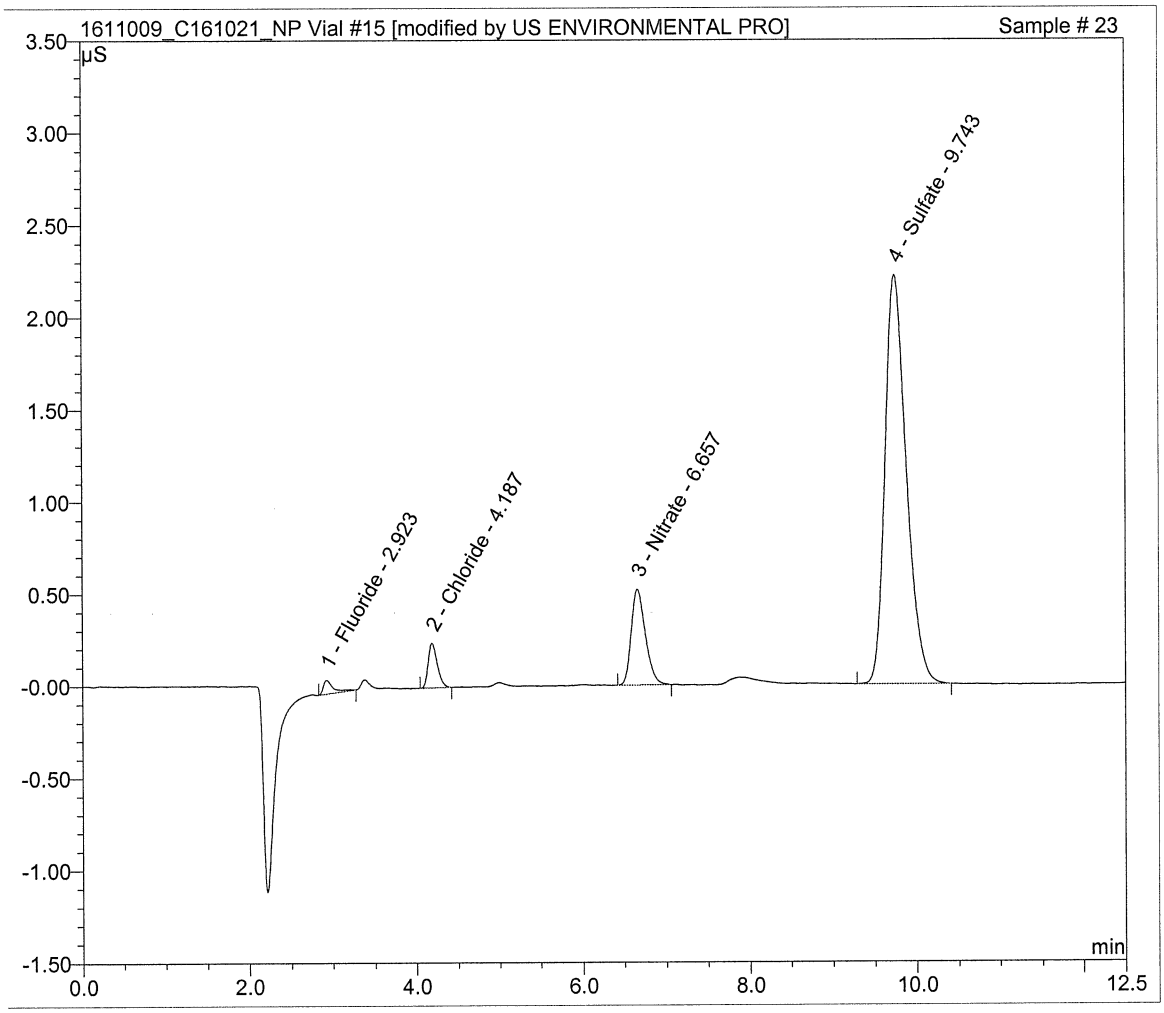
Sample Name:	**C161021-16**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**14**
Inj. Date/Time:	**11.10.16 18:01**	*Run Number:*	**22**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.93	Fluoride	BMB	0.010	0.081	0.0428
2	4.20	Chloride	BMB	0.047	0.372	0.2587
3	9.75	Sulfate	BMB	1.430	4.907	10.4287



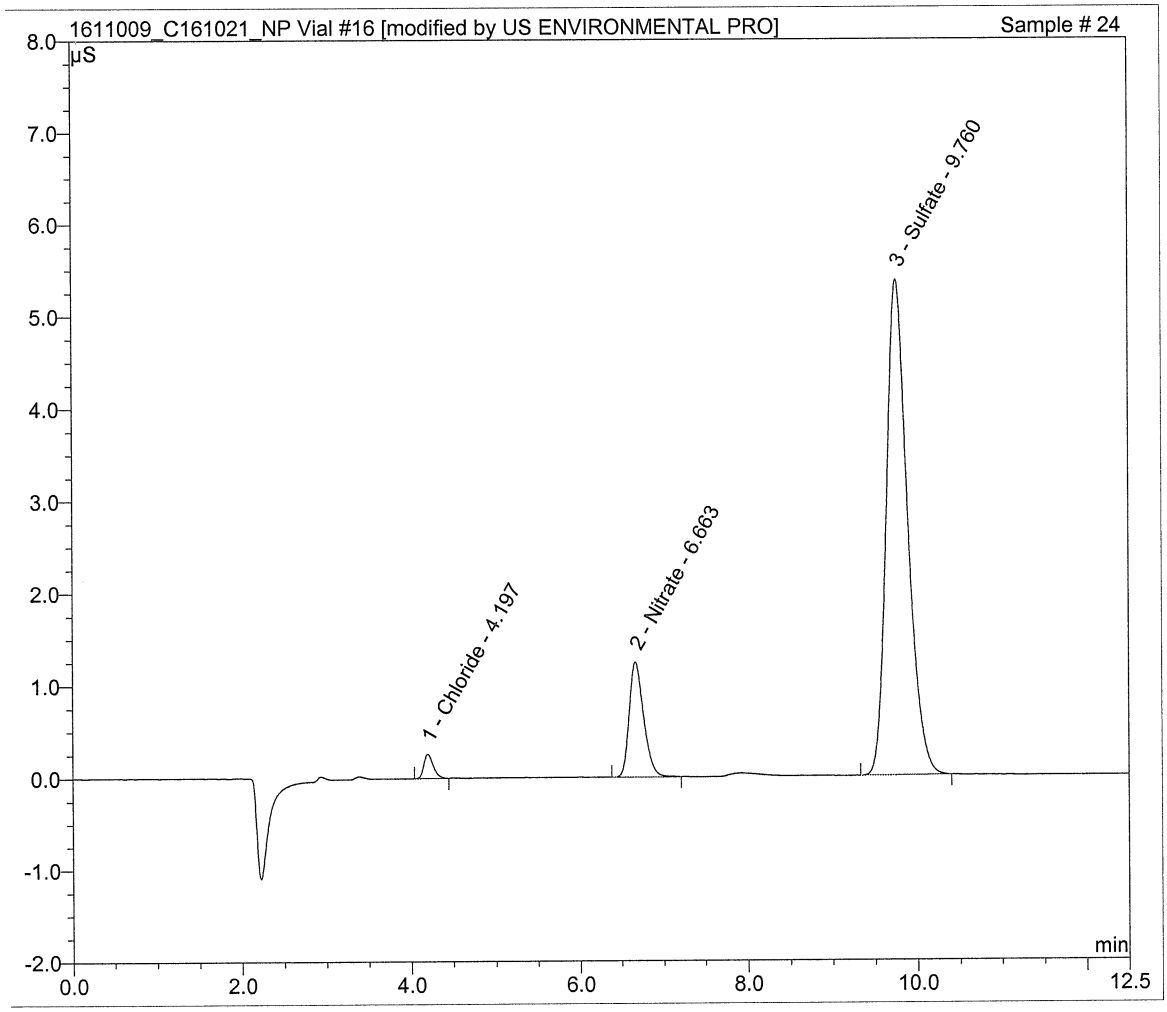
Sample Name:	**C161021-19**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**15**
Inj. Date/Time:	**11.10.16 18:16**	*Run Number:*	**23**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.92	Fluoride	BMB	0.010	0.075	0.0418
2	4.19	Chloride	BMB	0.031	0.244	0.1709
3	6.66	Nitrate	BMB	0.103	0.521	0.2231
4	9.74	Sulfate	BMB	0.652	2.223	5.0283



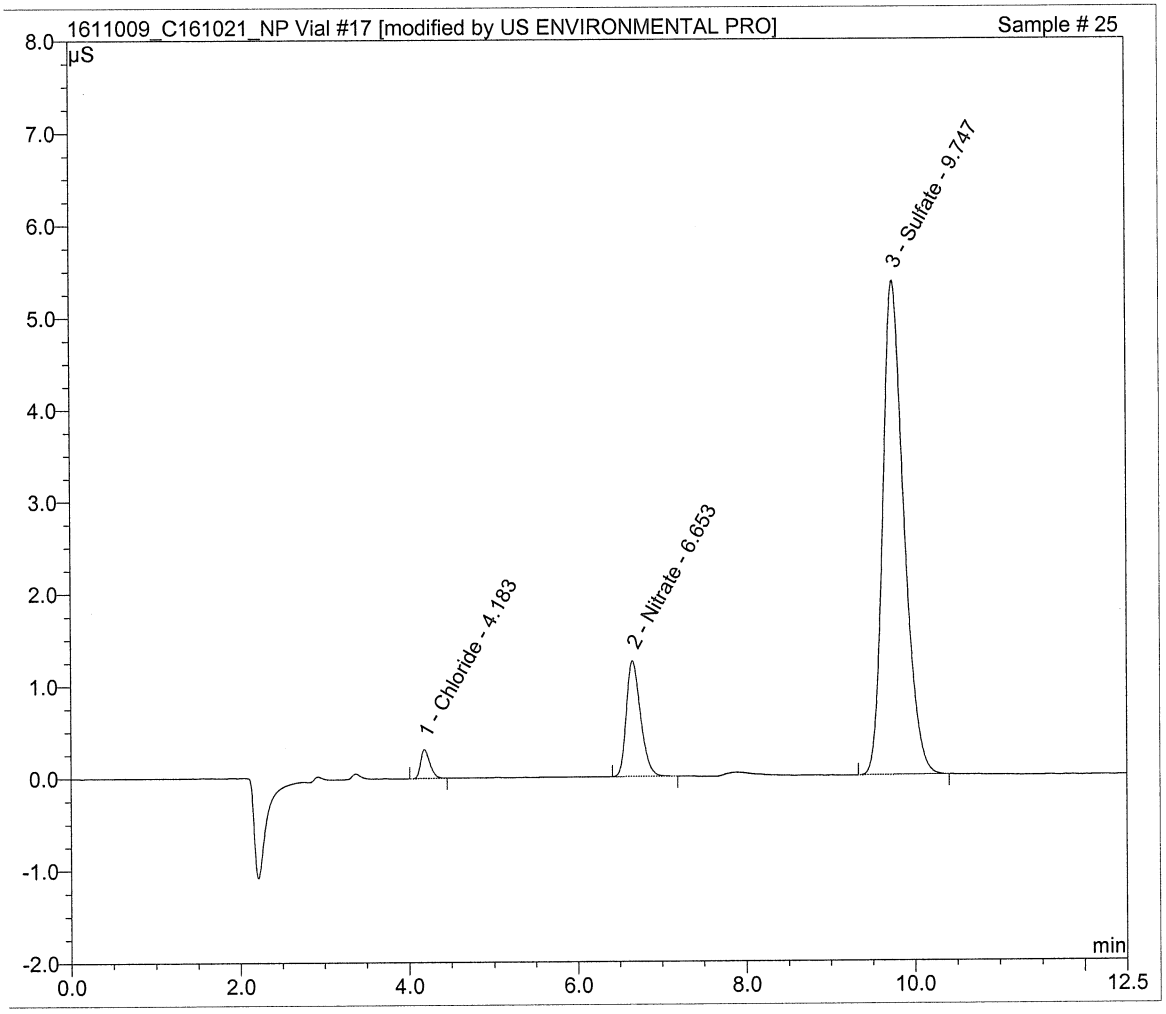
Sample Name:	**C161021-22**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**16**
Inj. Date/Time:	**11.10.16 18:32**	*Run Number:*	**24**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	4.20	Chloride	BMB	0.034	0.264	0.1862
2	6.66	Nitrate	BMB	0.246	1.243	0.5298
3	9.76	Sulfate	BMB	1.545	5.375	11.2121



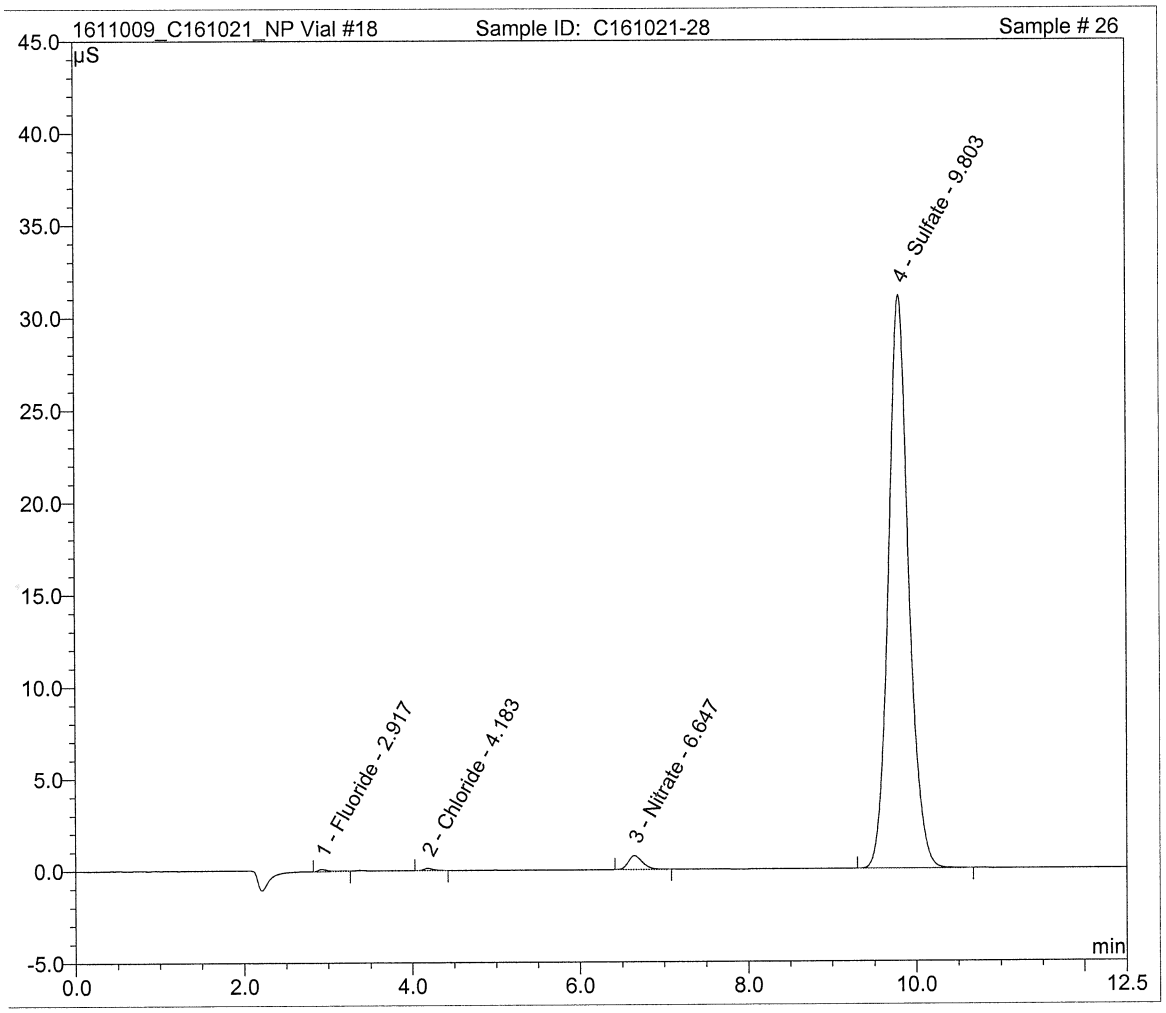
Sample Name:	**C161021-25**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**17**
Inj. Date/Time:	**11.10.16 18:47**	*Run Number:*	**25**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	4.18	Chloride	BMB	0.040	0.314	0.2211
2	6.65	Nitrate	BMB	0.248	1.256	0.5337
3	9.75	Sulfate	BMB	1.544	5.370	11.2047



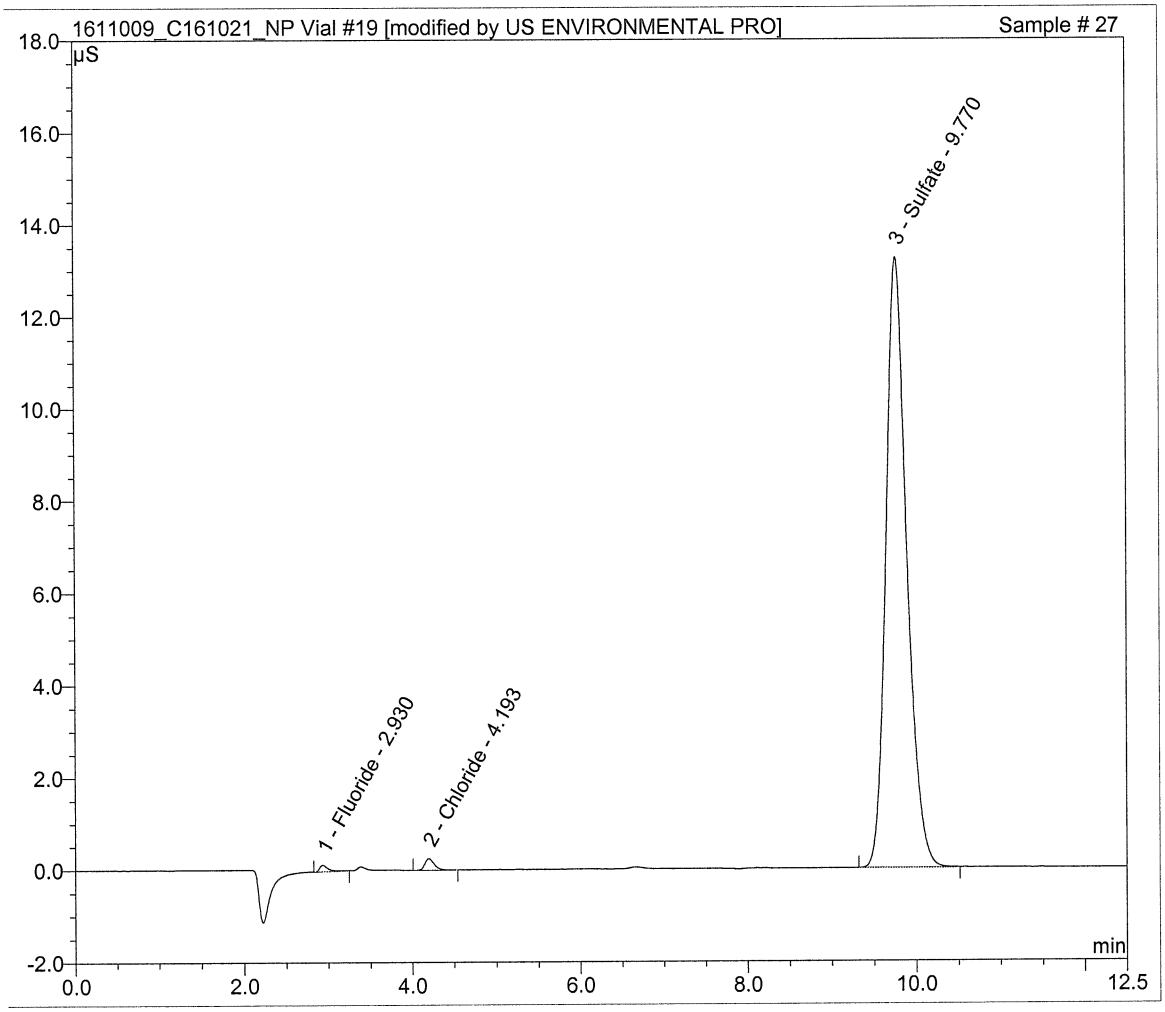
Sample Name:	**C161021-28**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**18**
Inj. Date/Time:	**11.10.16 19:02**	*Run Number:*	**26**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.92	Fluoride	BMB	0.014	0.116	0.0591
2	4.18	Chloride	BMB	0.015	0.118	0.0835
3	6.65	Nitrate	BMB	0.149	0.754	0.3216
4	9.80	Sulfate	BMB	8.596	31.103	55.2763



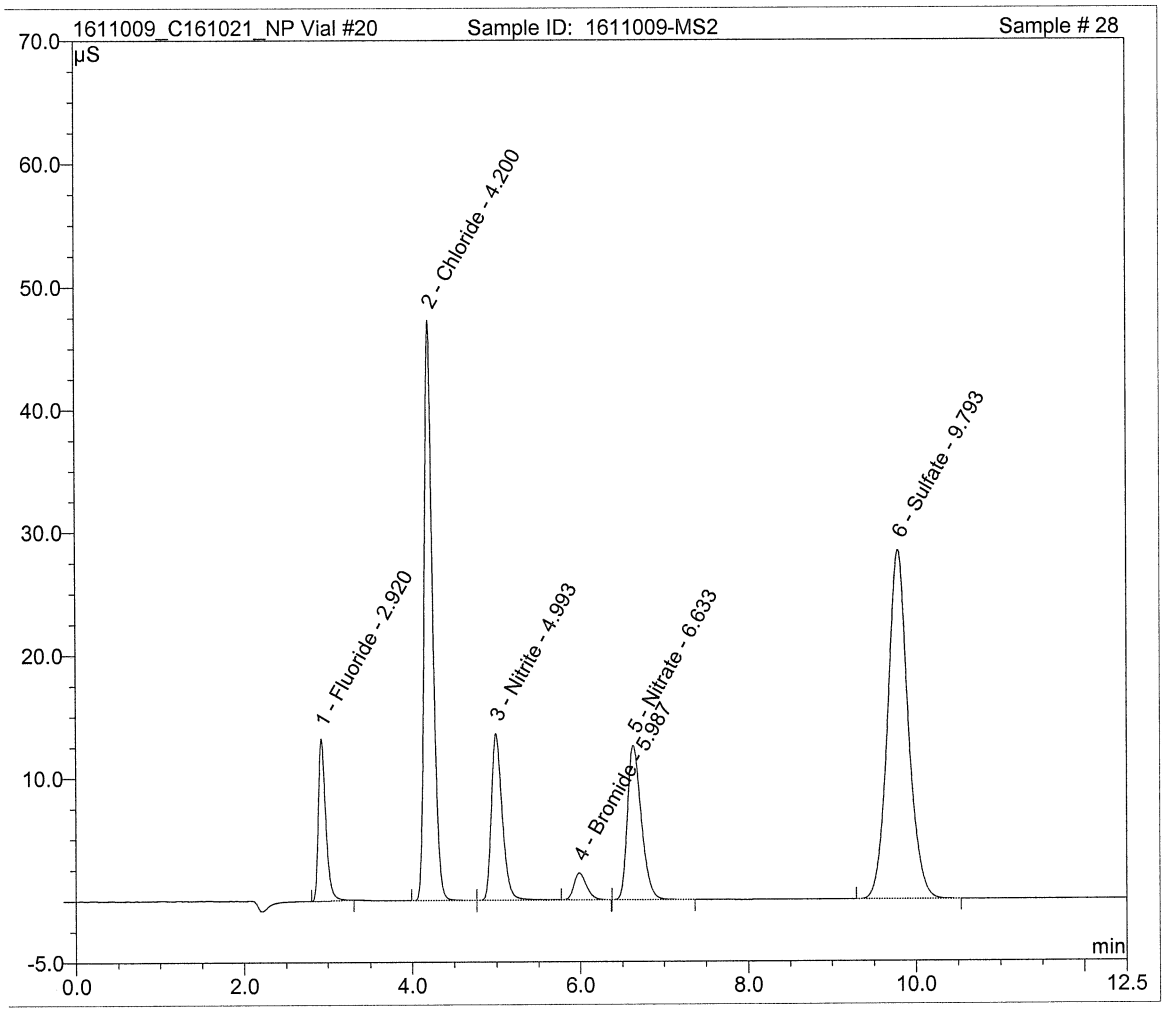
Sample Name:	**C161021-31**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**19**
Inj. Date/Time:	**11.10.16 19:17**	*Run Number:*	**27**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.93	Fluoride	BMB	0.017	0.142	0.0693
2	4.19	Chloride	BMB	0.032	0.249	0.1779
3	9.77	Sulfate	BMB	3.741	13.251	25.5027



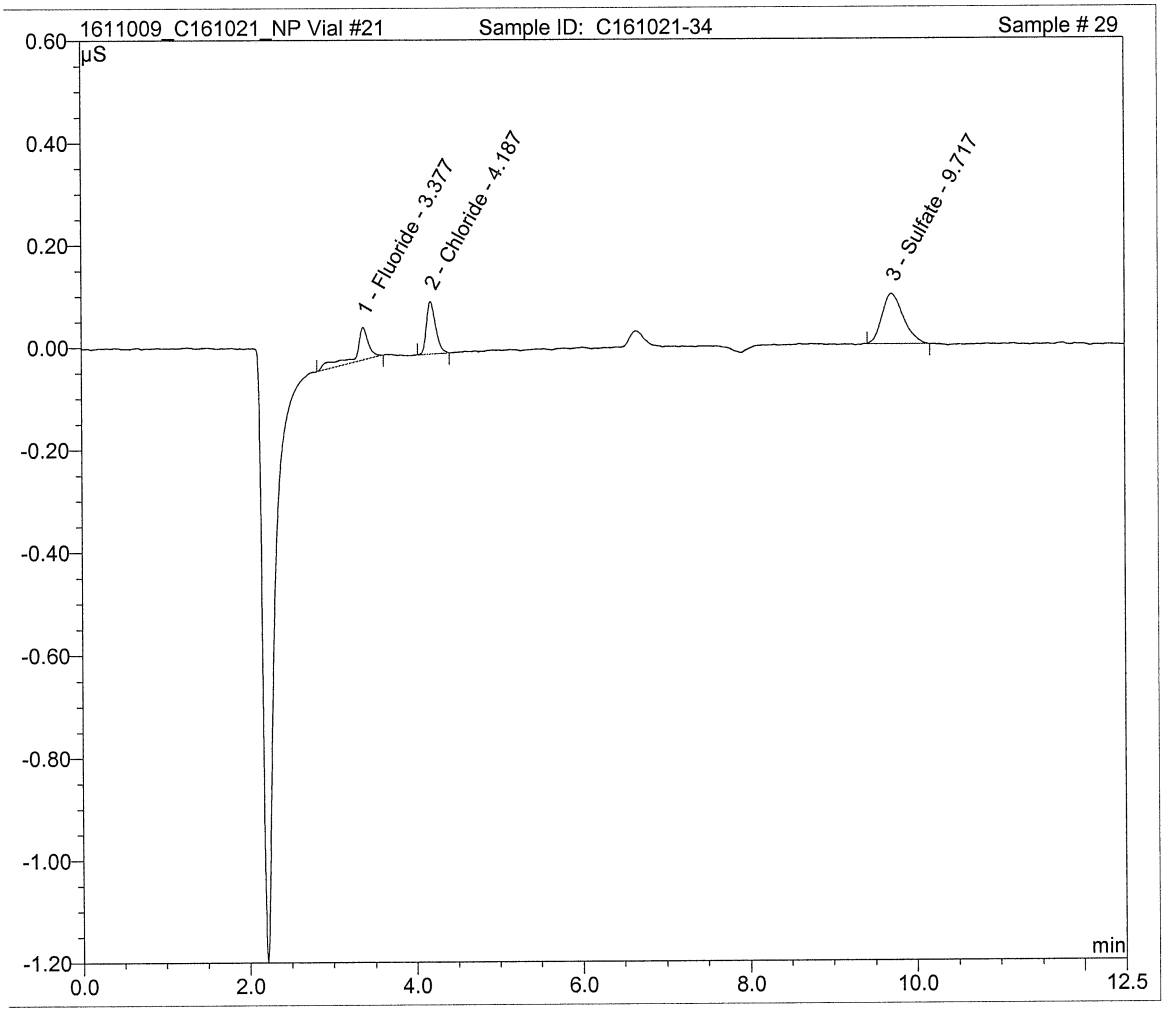
Sample Name:	**1611009-MS2**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**20**
Inj. Date/Time:	**11.10.16 19:32**	*Run Number:*	**28**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.92	Fluoride	BMB	1.391	13.203	5.2132
2	4.20	Chloride	BM	5.423	47.263	26.1479
3	4.99	Nitrite	M	2.063	13.562	5.0676
4	5.99	Bromide	Rd	0.378	2.176	4.9814
5	6.63	Nitrate	MB	2.420	12.553	4.9380
6	9.79	Sulfate	BMB	7.946	28.400	51.3782



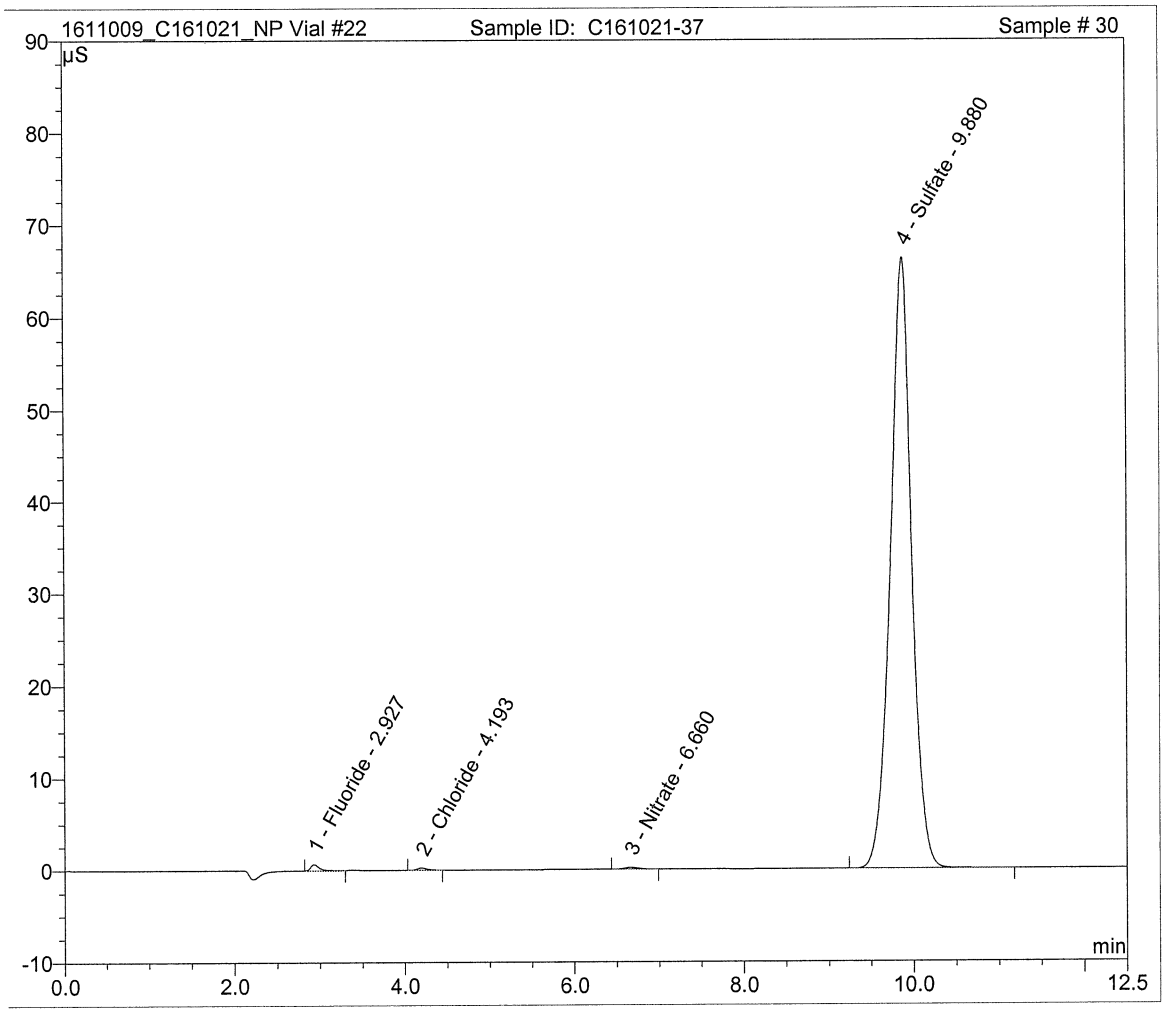
Sample Name:	**C161021-34**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**21**
Inj. Date/Time:	**11.10.16 19:47**	*Run Number:*	**29**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	3.38	Fluoride	BMB	0.012	0.064	0.0503
2	4.19	Chloride	BMB	0.013	0.103	0.0735
3	9.72	Sulfate	BMB	0.029	0.099	0.2805



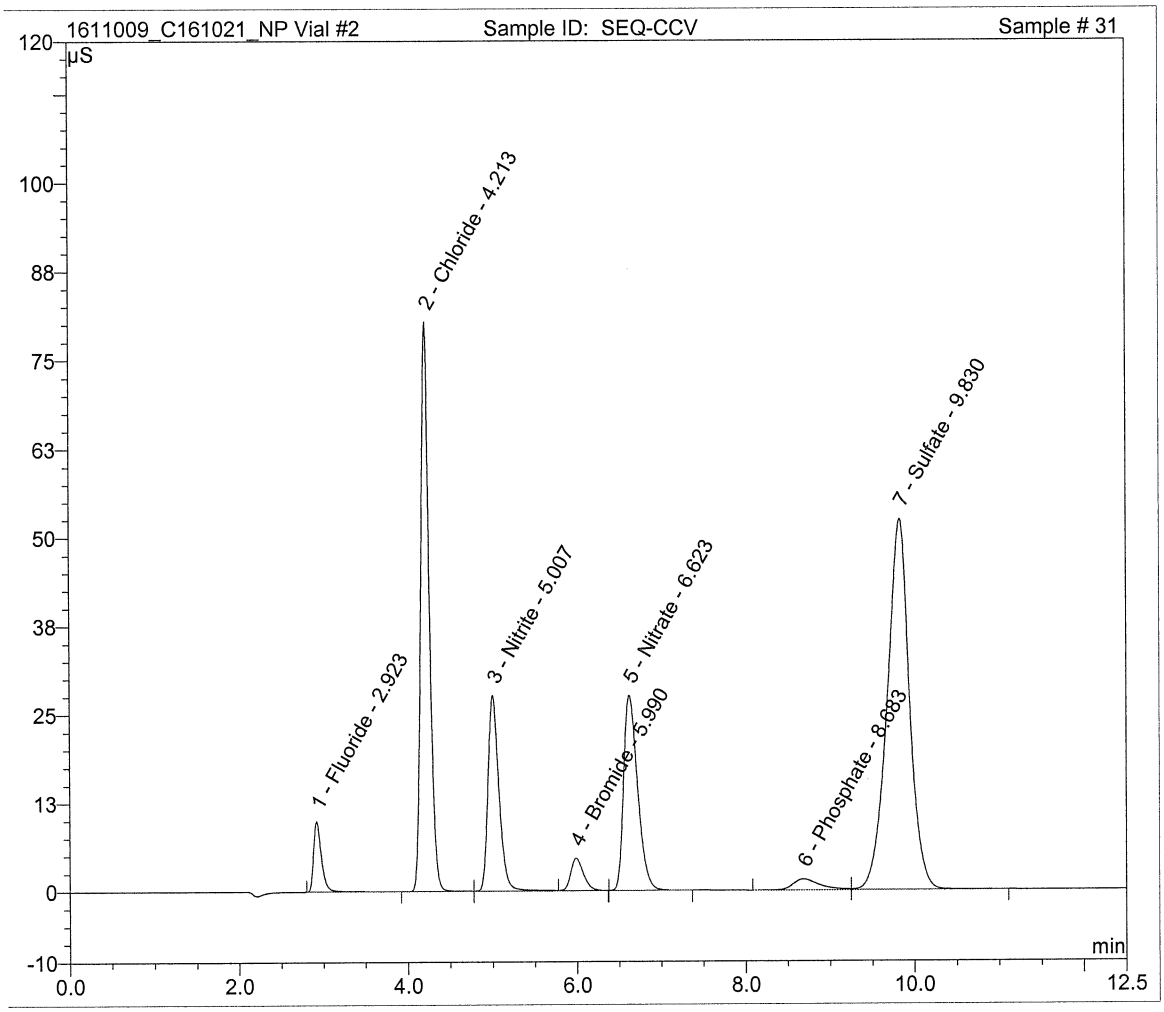
Sample Name:	**C161021-37**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**22**
Inj. Date/Time:	**11.10.16 20:02**	*Run Number:*	**30**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.93	Fluoride	BMB	0.077	0.671	0.3139
2	4.19	Chloride	BMB	0.031	0.245	0.1727
3	6.66	Nitrate	BMB	0.038	0.196	0.0831
4	9.88	Sulfate	BMB	19.017	66.339	115.6430



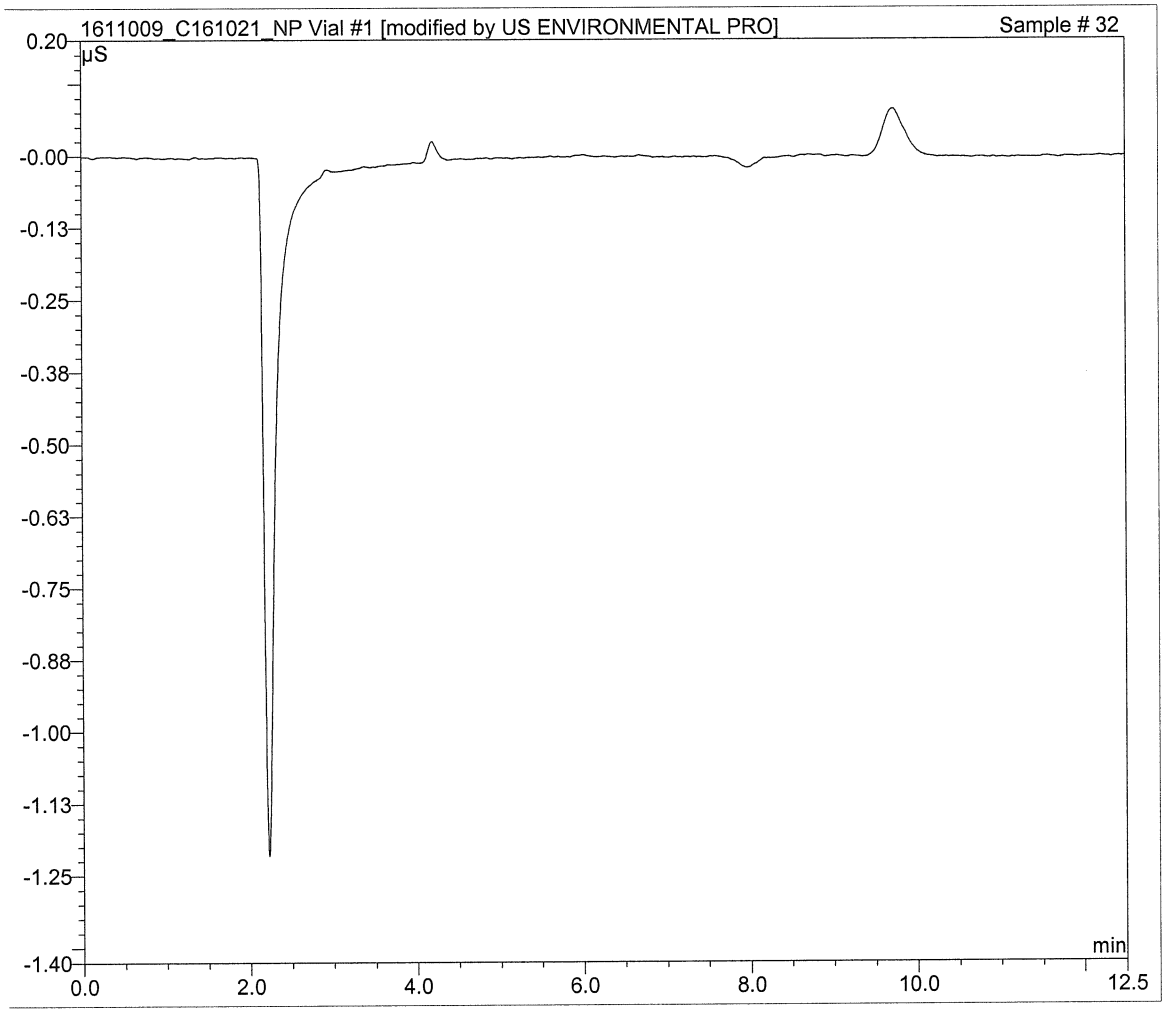
Sample Name:	**SEQ-CCV**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**2**
Inj. Date/Time:	**11.10.16 20:17**	*Run Number:*	**31**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.92	Fluoride	Ru	1.097	9.970	4.1892
2	4.21	Chloride	BM	9.279	80.373	41.9193
3	5.01	Nitrite	M	4.223	27.629	10.0587
4	5.99	Bromide	Rd	0.787	4.567	10.4787
5	6.62	Nitrate	MB	5.316	27.537	10.2080
6	8.68	Phosphate	BM	0.580	1.572	4.0305
7	9.83	Sulfate	MB	16.025	52.433	98.6267



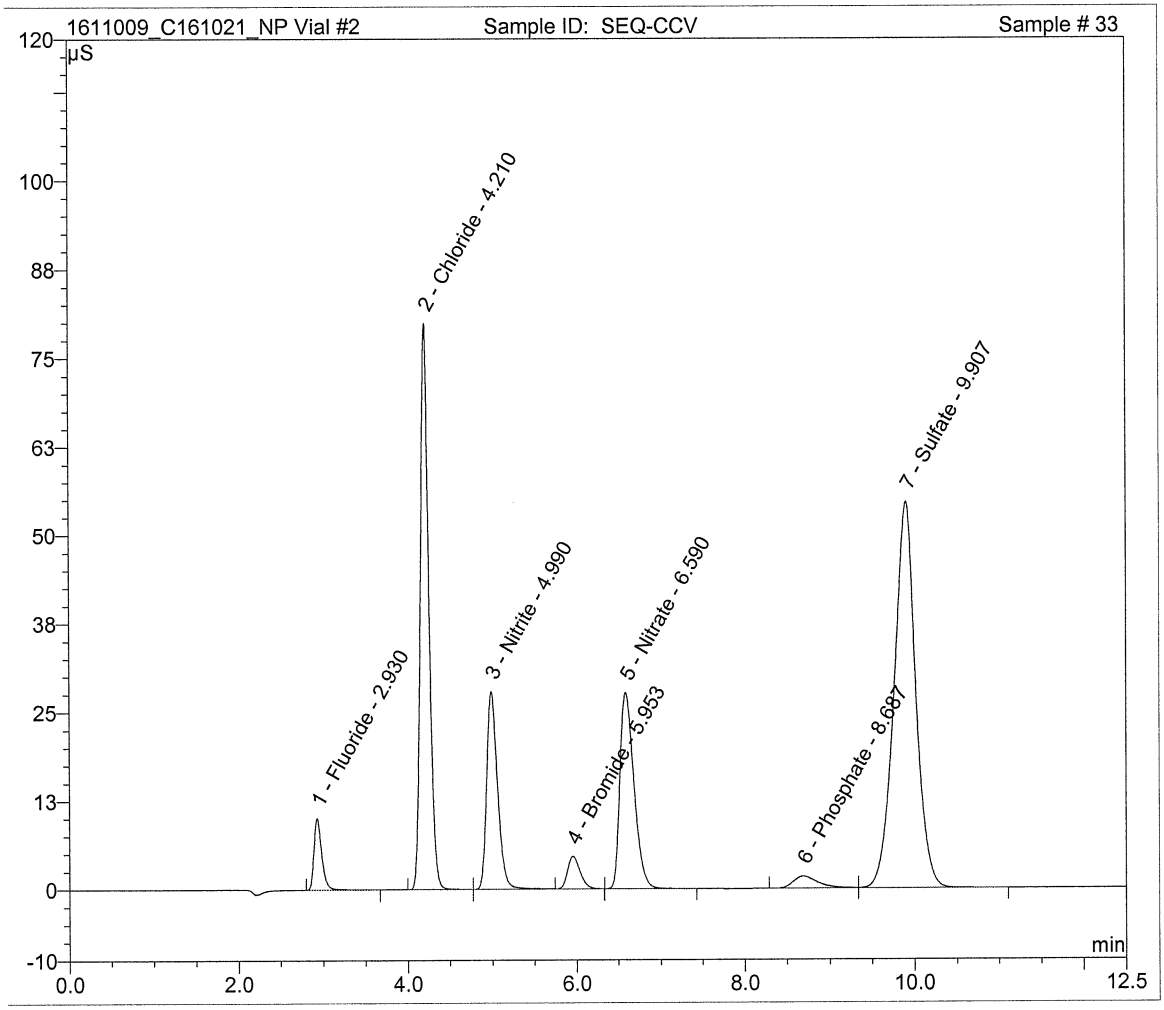
Sample Name:	**SEQ-CCB**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**1**
Inj. Date/Time:	**11.10.16 20:32**	*Run Number:*	**32**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L



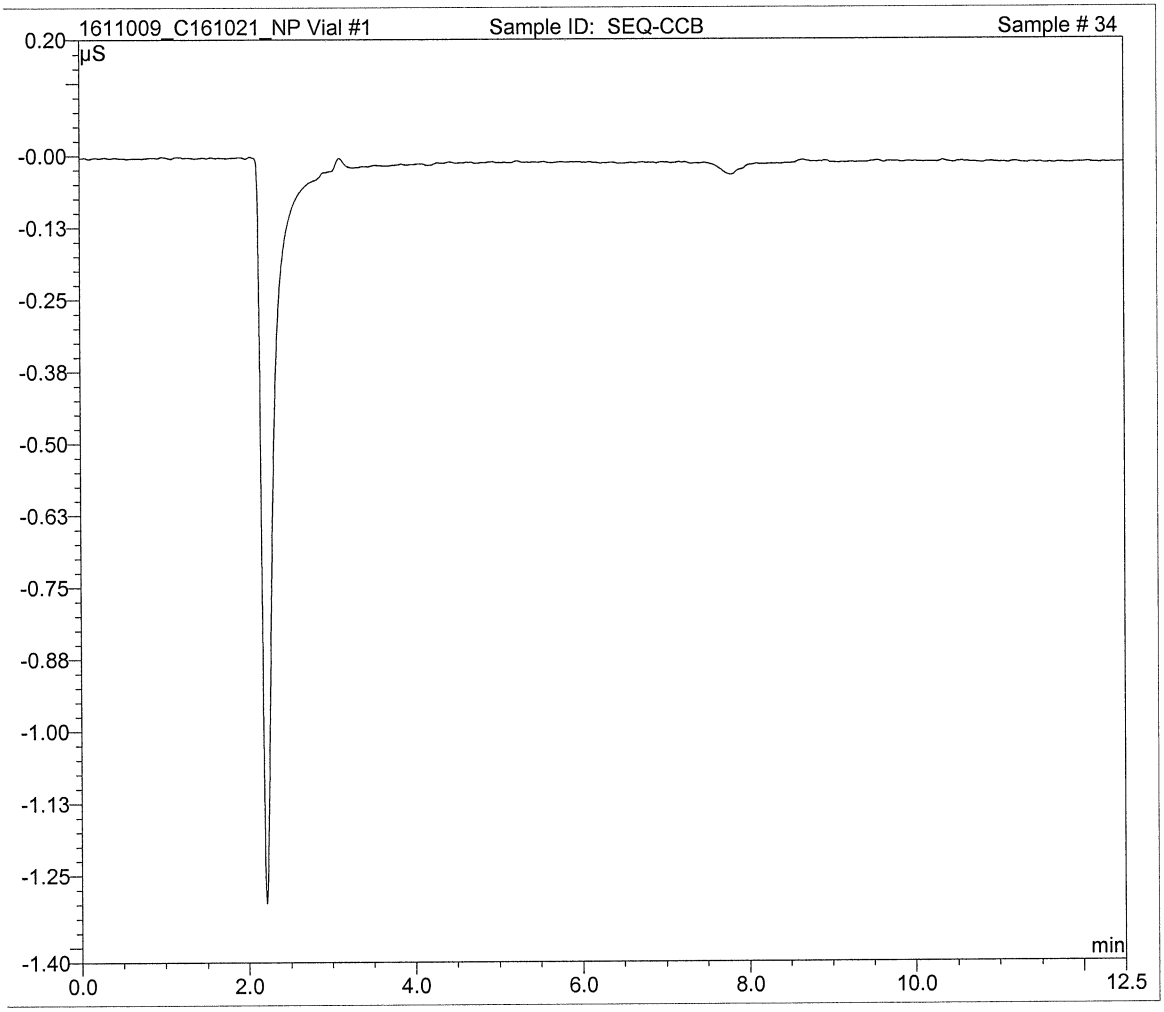
Sample Name:	**SEQ-CCV**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**2**
Inj. Date/Time:	**11.11.16 12:49**	*Run Number:*	**33**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.93	Fluoride	BMB	1.085	10.107	4.1465
2	4.21	Chloride	BM	9.244	79.953	41.7823
3	4.99	Nitrite	M	4.207	27.891	10.0235
4	5.95	Bromide	Rd	0.785	4.593	10.4567
5	6.59	Nitrate	MB	5.298	27.658	10.1762
6	8.69	Phosphate	BM	0.591	1.715	4.0997
7	9.91	Sulfate	MB	16.064	54.606	98.8500



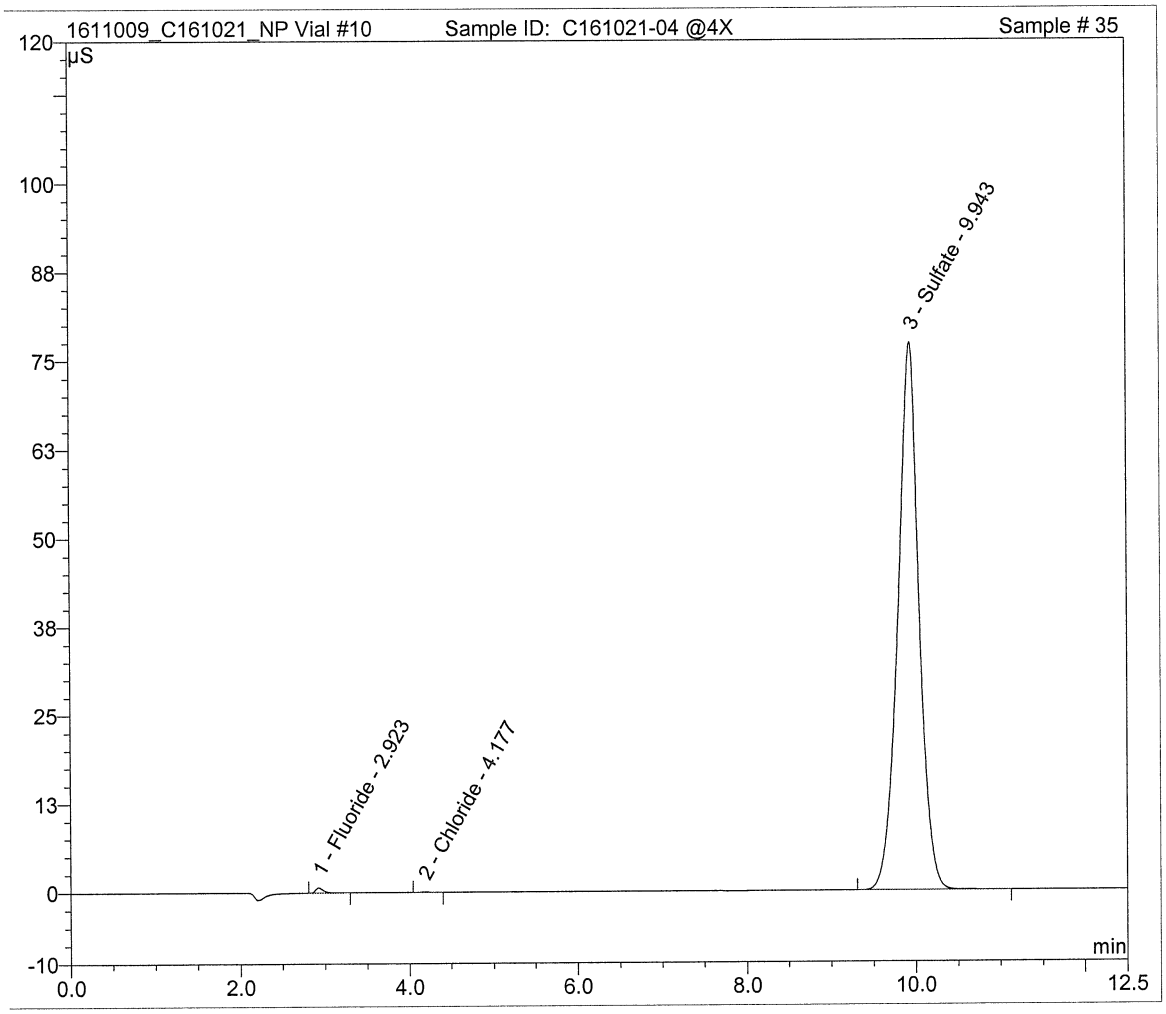
Sample Name:	**SEQ-CCB**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**1**
Inj. Date/Time:	**11.11.16 13:04**	*Run Number:*	**34**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L



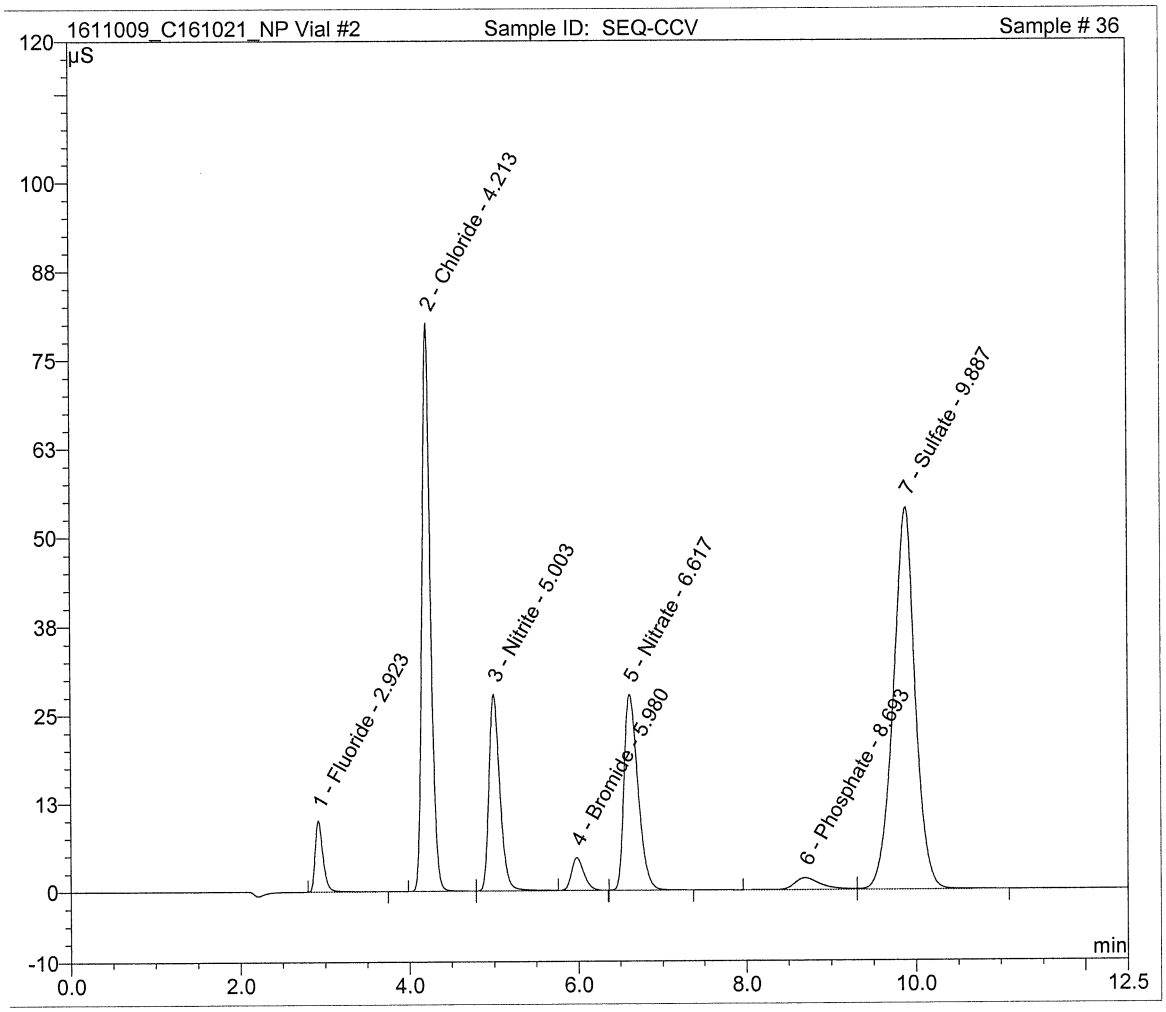
Sample Name:	**C161021-04 @4X**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**10**
Inj. Date/Time:	**11.11.16 13:19**	*Run Number:*	**35**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.92	Fluoride	BMB	0.080	0.717	0.3292
2	4.18	Chloride	BMB	0.010	0.079	0.0564
3	9.94	Sulfate	BMB	22.312	77.287	134.1614



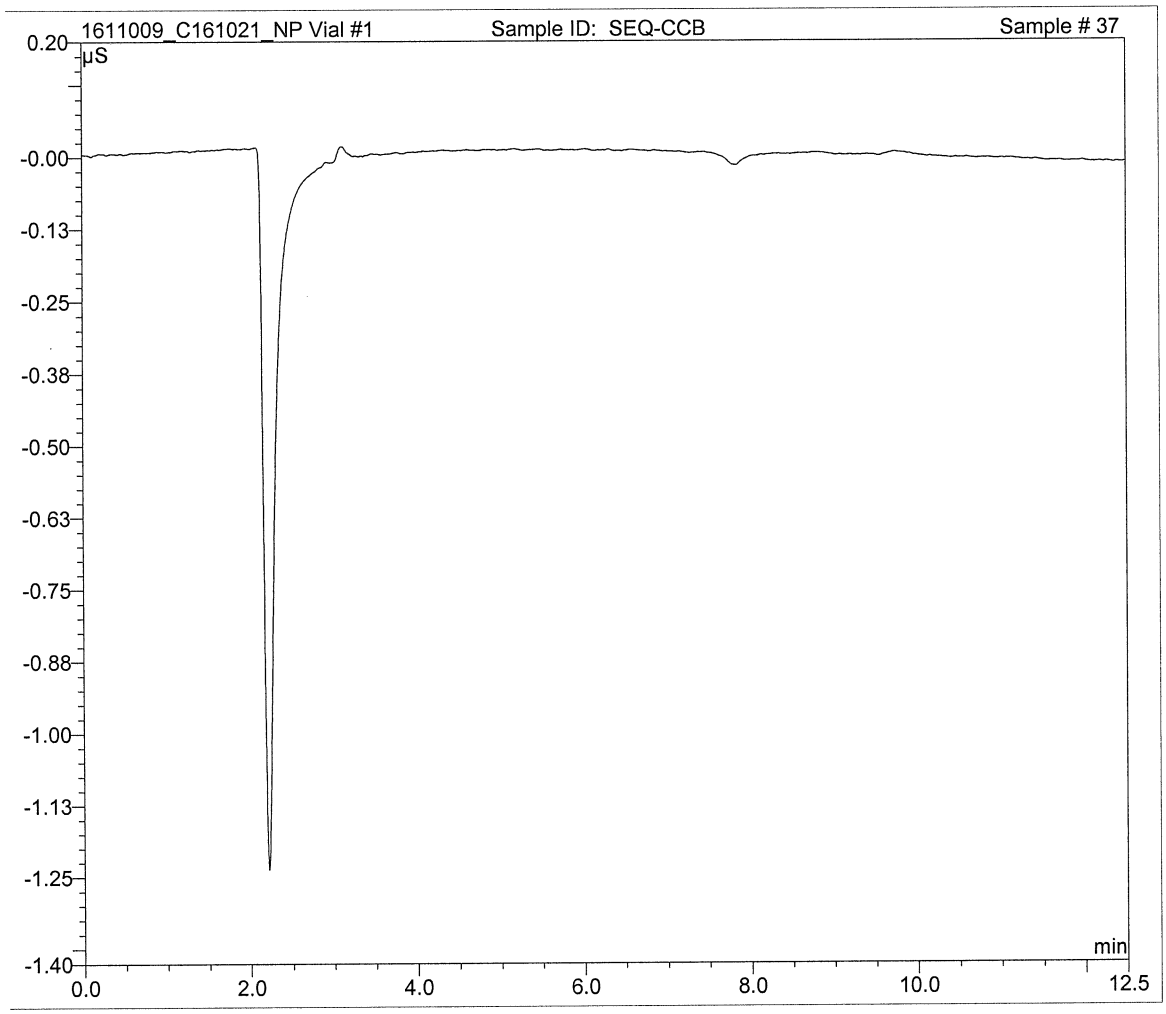
Sample Name:	**SEQ-CCV**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**2**
Inj. Date/Time:	**11.11.16 13:34**	*Run Number:*	**36**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	2.92	Fluoride	BMB	1.087	10.082	4.1531
2	4.21	Chloride	BM	9.220	80.211	41.6862
3	5.00	Nitrite	M	4.201	27.882	10.0082
4	5.98	Bromide	Rd	0.782	4.603	10.4199
5	6.62	Nitrate	MB	5.292	27.758	10.1661
6	8.69	Phosphate	BM	0.608	1.678	4.2066
7	9.89	Sulfate	MB	16.030	53.928	98.6570



Sample Name:	**SEQ-CCB**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Anions Right**	*Vial #:*	**1**
Inj. Date/Time:	**11.11.16 13:49**	*Run Number:*	**37**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L



Sample Name:	**STOP**	*Inj. Vol.:*	**25.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**Program Stop**	*Vial #:*	**1**
Inj. Date/Time:	**11.11.16 14:02**	*Run Number:*	**38**

n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

1611009_C161021_NP Vial #1 Sample ID: STOP Sample # 38

Can't open raw data file "C:\Chromel\data\Right_system\Sequences and Data\2016 ESAT\1611009_C161021_NP.SEQ\ECD_1.CHL\25129.acd".
The system cannot find the file specified.

PERKIN ELMER OPTIMA 4300DV ICP-OE

Project(s): Boreta Peak oct 2016 Date: 12 / 08 / 2016

Work Order(s): C161021 TDF: A-128 Analyst: S. Van Overmeiren

Batch Preparation Information

Digest / Prep: TR / Total / Diss.

Matrix: Water / Soil / Other

Batch ID: 1612038/1611171

Data Storage

Data File: X:/Metals Data Files/ A128-1612038-161208

Standard Information

Calibration Std. # 1 = Reagent Blank Solution

SCV: *(LIMS ID: C601065)*

Prepped: 10/03/16 By: SV

CRQL Stock: *(LIMS ID: C601068)*

Prepped: 1-12-2016 By: SV

CRQL Daily *(LIMS ID: C601069)*

Prepped: 12/08/16 By: SV

Calibration Std. # 2 = ESAT High, LIMS: C601063

Prepped: 09/13/16 By: SV

ICV/CCV: 1:2 of C601063 *(LIMS ID: C601064)*

Prepped: 12/08/16 By: SV

ICSA: C601066 **Prepped: 1-12-2016**

ICSAB: C601067 Prepped: 1-12-2016

Spike Information

Dissolved Spikes

Sample ID: C161021-03,-06

Sample ID: —

Sample vol: 10 mL

QCS-3 : 100 uL

Exp: 1-1-2017 (LIMS ID: C601033)

Salt Spike: 100 uL

Prepped 1-12-2016 *(LIMS ID: C601061)*

Tot. / Tot. Rec. Spikes

Sample ID: C161021-02,-05

Sample Vol: 50 mL

WW-LFS1: 500 uL

Exp: 1-1-2017 *(LIMS ID: C601034)*

WW-LFS2: 500 uL

Exp: 1-1-2017 *(LIMS ID: C601035)*

Comments / Maintenance

Replace Nebulizer? Y / N New pump tubing? Y / N Replace torch or injector? Y / N

Analytes Reported:

Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, K, Mg,

Mn, Mo, Na, Ni, Pb, Sb, Se, SiO2, Sr, Ti, Tl, V, Zn

Sequence ID: 1612043/1612044

Lims Entry (Date / Init): 12/08/16 SV

TLF-06.02	SOP: QAQ-04.01	Eff. Date: 11/11/2013

ESAT Region 8

ICP-OE Data Review Form

Analyst / Bench Review – Level I

LIMS: C16/021	TDF: A-128
Matrix: Water	Analysis: Dissolved / Tot. Rec. Metals

Method / Instrument QC Parameters		Analytical Batch / Sample Parameters
☒ Yes ☐ No ICV 95-105%	☒ Yes ☐ No SCV 90-110%	☒ Yes ☐ No Mth. Blk. (MB) / Prep. BLK (PB) ≤ ± PQL
☒ Yes ☐ No ICB ≤ ± PQL	☒ Yes ☐ No CRDL 70-130%	☒ Yes ☐ No Blk. Spike (BS) 85-115% / SRM In Control
☒ Yes ☐ No ICSA Spiked Analytes 80% - 120%		☒ Yes ☐ No Laboratory Duplicate Analyzed
☒ Yes ☐ No ICSA Non-Spiked Analytes ≤ ± PQL		☒ Yes ☐ No MS Analyzed Every 10% of Samples 70-130%
☒ Yes ☐ No ICSAB Spiked Analytes 80-120%		☒ Yes ☐ No Serial Dilution Analyzed
☒ Yes ☐ No CCBs ≤ ± PQL	☒ Yes ☐ No CCVs 90-110%	☒ Yes ☐ No Internal Standards 80-120%

Other data quality issues identified ☐ Yes ☒ No

Describe any anomaly or deficiency not indicated above in the space provided

LIMS Electronic Data Transfer

☒ Yes ☐ No The instrument data file is uploaded to the X: drive	☒ Yes ☐ No Instrument data are uploaded into the LIMS
☒ Yes ☐ No All samples and QC data are present in LIMS	☒ Yes ☐ No The analyte list for the sequence is complete
Analyst:	Date: 12/08/16

Peer Review of Analytical Analysis – Level II

Method / Instrument QC Parameters		Analytical Batch / Sample Parameters
☒ Yes ☐ No ICV 95-105%	☒ Yes ☐ No SCV 90-110%	☒ Yes ☐ No Mth. Blk. (MB) / Prep. BLK (PB) ≤ ± PQL
☒ Yes ☐ No ICB ≤ ± PQL	☒ Yes ☐ No CRDL 70-130%	☒ Yes ☐ No Blk. Spike (BS) 85-115% / SRM In Control
☒ Yes ☐ No ICSA Spiked Analytes 80-120%		☒ Yes ☐ No Laboratory Duplicate Analyzed
☒ Yes ☐ No ICSA Non-Spiked Analytes ≤ ± PQL		☒ Yes ☐ No MS Analyzed Every 10% of Samples 70-130%
☒ Yes ☐ No ICSAB Spiked Analytes 80-120%		☒ Yes ☐ No Serial Dilution Analyzed
☒ Yes ☐ No CCBs ≤ ± PQL	☒ Yes ☐ No CCVs 90-110%	☒ Yes ☐ No Internal Standards 80-120%

Other data quality issues identified ☐ Yes ☒ No

Describe any anomaly or deficiency not indicated above in the space provided

LIMS Electronic Data Transfer

☒ Yes ☐ No The instrument data file is uploaded to the X: drive	☒ Yes ☐ No Instrument data are uploaded into the LIMS
☒ Yes ☐ No All samples and QC data are present in LIMS	☒ Yes ☐ No The analyte list for the sequence is complete
Peer Reviewer:	Date: 12/9/2016

PREPARATION BENCH SHEET

1612038

TechLaw, Inc. - ESAT Region 8

Printed: 12/7/2016 12:59:43PM

Matrix: Water

Date Prepared: 12/07/16 12:57 By: SV

Prepared using: METALS - No Lab Prep Reqd

Lab Number	Analysis	EPA Tag ID	Initial (mL)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Source ID	QC Code	Extraction Comments
C161021-03 A	DM-Hardness - Calculated	8-C	50	50						SS71-SS-00-EPA	
C161021-06 A	DM-Hardness - Calculated	8-C	50	50						SS72-SS-00-EPA	
C161021-09 A	DM-Hardness - Calculated	8-C	50	50						SS73-SS-00-EPA	
C161021-12 A	DM-Hardness - Calculated	8-C	50	50						SS74-SS-00-EPA	
C161021-15 A	DM-Hardness - Calculated	8-C	50	50						SS75-SS-00-EPA	
C161021-18 A	DM-Hardness - Calculated	8-C	50	50						SS76-SS-00-EPA	
C161021-21 A	DM-Hardness - Calculated	8-C	50	50						SS77-SS-00-EPA	
C161021-24 A	DM-Hardness - Calculated	8-C	50	50						SS78-SS-00-EPA	
C161021-27 A	DM-Hardness - Calculated	8-C	50	50						SS78-SS-30-EPA	
C161021-30 A	DM-Hardness - Calculated	8-C	50	50						SS79-SS-00-EPA	
C161021-33 A	DM-Hardness - Calculated	8-C	50	50						SS80-SS-00-EPA	
C161021-36 A	DM-Hardness - Calculated	8-C	50	50						SS80-SS-90-EPA	
C161021-39 A	DM-Hardness - Calculated	8-C	50	50						SW81-SW-00-EPA	
C161021-03 A	ICPOE Diss. Metals	8-C	50	50						SS71-SS-00-EPA	
C161021-06 A	ICPOE Diss. Metals	8-C	50	50						SS72-SS-00-EPA	
C161021-09 A	ICPOE Diss. Metals	8-C	50	50						SS73-SS-00-EPA	
C161021-12 A	ICPOE Diss. Metals	8-C	50	50						SS74-SS-00-EPA	
C161021-15 A	ICPOE Diss. Metals	8-C	50	50						SS75-SS-00-EPA	
C161021-18 A	ICPOE Diss. Metals	8-C	50	50						SS76-SS-00-EPA	
C161021-21 A	ICPOE Diss. Metals	8-C	50	50						SS77-SS-00-EPA	
C161021-24 A	ICPOE Diss. Metals	8-C	50	50						SS78-SS-00-EPA	
C161021-27 A	ICPOE Diss. Metals	8-C	50	50						SS78-SS-30-EPA	
C161021-30 A	ICPOE Diss. Metals	8-C	50	50						SS79-SS-00-EPA	
C161021-33 A	ICPOE Diss. Metals	8-C	50	50						SS80-SS-00-EPA	

12/08/16

Preparation Reviewed By Date

PREPARATION BENCH SHEET

1612038

TechLaw, Inc. - ESAT Region 8

Printed: 12/7/2016 12:59:43PM

Matrix: Water

Date Prepared: 12/07/16 12:57 By: SV

Prepared using: METALS - No Lab Prep Reqd

Lab Number	Analysis	EPA Tag ID	Initial (mL)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Source ID	QC Code	Extraction Comments
C161021-36 A	ICPOE Diss. Metals	8-C	50	50						SS80-SS-90-EPA	
C161021-39 A	ICPOE Diss. Metals	8-C	50	50						SW81-SW-00-EPA	
1612038-BLK1	QC		50	50						Blank	
1612038-BS1	QC		10	10	C601062	100				LCS	
1612038-DUP1	QC		50	50					C161021-03	Duplicate	
1612038-MS1	QC		10	10	C601062	100			C161021-03	Matrix Spike	
1612038-MS2	QC		10	10	C601062	100			C161021-06	Matrix Spike	

HNO3 lot:1114090
HCl lot:4113083
Pipettors:
MET02-0100
MET04-0500
MET05-1000
MET07-9500
MET08-10000

Preparation Reviewed By Date

PREPARATION BENCH SHEET

1611171

TechLaw, Inc. - ESAT Region 8

Printed: 11/30/2016 1:39:50PM

Matrix: Water

Date Prepared: 11/30/16 13:38 By: SV

Prepared using: METALS - 200.2 - TR Metals

Lab Number	Analysis	EPA Tag ID	Initial (mL)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Source ID	QC Code	Extraction Comments
C161021-02 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS71-SS-00-EPA	
C161021-05 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS72-SS-00-EPA	
C161021-08 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS73-SS-00-EPA	
C161021-11 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS74-SS-00-EPA	
C161021-14 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS75-SS-00-EPA	
C161021-17 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS76-SS-00-EPA	
C161021-20 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS77-SS-00-EPA	
C161021-23 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS78-SS-00-EPA	
C161021-26 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS78-SS-30-EPA	
C161021-29 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS79-SS-00-EPA	
C161021-32 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS80-SS-00-EPA	
C161021-35 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS80-SS-90-EPA	
C161021-38 A	ICPMS Tot. Rec. Metals	8-B	50	50						SW81-SW-00-EPA	
C161021-02 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS71-SS-00-EPA	
C161021-05 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS72-SS-00-EPA	
C161021-08 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS73-SS-00-EPA	
C161021-11 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS74-SS-00-EPA	
C161021-14 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS75-SS-00-EPA	
C161021-17 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS76-SS-00-EPA	
C161021-20 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS77-SS-00-EPA	
C161021-23 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS78-SS-00-EPA	
C161021-26 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS78-SS-30-EPA	
C161021-29 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS79-SS-00-EPA	
C161021-32 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS80-SS-00-EPA	

12/08/16

Preparation Reviewed By Date

PREPARATION BENCH SHEET

1611171

TechLaw, Inc. - ESAT Region 8

Printed: 11/30/2016 1:39:50PM

Matrix: Water

Date Prepared: 11/30/16 13:38 By: SV

Prepared using: METALS - 200.2 - TR Metals

Lab Number	Analysis	EPA Tag ID	Initial (mL)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Source ID	QC Code	Extraction Comments
C161021-35 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS80-SS-90-EPA	
C161021-38 A	ICPOE Tot. Rec. Metals	8-B	50	50						SW81-SW-00-EPA	
1611171-BLK1	QC		50	50						Blank	
1611171-BLK2	QC		50	50						Blank	
1611171-DUP1	QC		50	50					C161021-02	Duplicate	
1611171-DUP2	QC		50	50					C161021-02	Duplicate	
1611171-MS1	QC		50	50	C601034	500	C601035	500	C161021-02	Matrix Spike	
1611171-MS2	QC		50	50	C601034	500	C601035	500	C161021-02	Matrix Spike	
1611171-MS3	QC		50	50	C601034	500	C601035	500	C161021-05	Matrix Spike	
1611171-MS4	QC		50	50	C601034	500	C601035	500	C161021-05	Matrix Spike	
1611171-SRM1	QC		50	50	C601045	500	C601046	500		Reference	
1611171-SRM2	QC		50	50	C601045	500	C601046	500		Reference	

HNO3 lot:1114090
HCl lot:4113083
DigiTube lot:218981
DigiBlock:E10632
Thermometer:E10758

Pipettors:
MET02-0100
MET04-0500
MET05-1000
MET07-9500
MET08-10000

Preparation Reviewed By Date

ANALYSIS SEQUENCE

1612043

12/08/16

Instrument: ICPOE - PE Optima Sequence Date: 12/08/16 00:00 Printed: 12/8/2016 11:55:51AM

Lab Number	Dilut. Factor	Analysis	STD ID	Sample/Std Name	EPA Tag ID	Source Sple	Comments
1612043-ICV1		QC	C601064	Initial Cal Check		-	
1612043-SCV1		QC	C601065	Secondary Cal Check		-	
1612043-ICB1		QC		Initial Cal Blank		-	
1612043-CRL1		QC	C601069	Instrument RL Check		-	
1612043-IFA1		QC	C601066	Interference Check A		-	
1612043-IFB1		QC	C601067	Interference Check B		-	
1612038-BLK1		QC		Blank		-	
1612038-BS1		QC		LCS		-	
C161021-03 A		ICPOE Diss. Metals		SS71-SS-00-EPA	8-C		
C161021-03 A		DM-Hardness - Calculated		SS71-SS-00-EPA	8-C		
1612038-DUP1		QC		Duplicate		C161021-03	
1612043-SRD1		QC		Serial Dilution		C161021-03	
1612038-MS1		QC		Matrix Spike		C161021-03	
C161021-06 A		ICPOE Diss. Metals		SS72-SS-00-EPA	8-C		
C161021-06 A		DM-Hardness - Calculated		SS72-SS-00-EPA	8-C		
1612038-MS2		QC		Matrix Spike		C161021-06	
C161021-09 A		ICPOE Diss. Metals		SS73-SS-00-EPA	8-C		
C161021-09 A		DM-Hardness - Calculated		SS73-SS-00-EPA	8-C		
1612043-CCV1		QC	C601064	Calibration Check		-	
1612043-CCB1		QC		Calibration Blank		-	
C161021-12 A		ICPOE Diss. Metals		SS74-SS-00-EPA	8-C		
C161021-12 A		DM-Hardness - Calculated		SS74-SS-00-EPA	8-C		
C161021-15 A		ICPOE Diss. Metals		SS75-SS-00-EPA	8-C		
C161021-15 A		DM-Hardness - Calculated		SS75-SS-00-EPA	8-C		
C161021-18 A		ICPOE Diss. Metals		SS76-SS-00-EPA	8-C		
C161021-18 A		DM-Hardness - Calculated		SS76-SS-00-EPA	8-C		
C161021-21 A		ICPOE Diss. Metals		SS77-SS-00-EPA	8-C		
C161021-21 A		DM-Hardness - Calculated		SS77-SS-00-EPA	8-C		
C161021-24 A		ICPOE Diss. Metals		SS78-SS-00-EPA	8-C		
C161021-24 A		DM-Hardness - Calculated		SS78-SS-00-EPA	8-C		
C161021-27 A		ICPOE Diss. Metals		SS78-SS-30-EPA	8-C		
C161021-27 A		DM-Hardness - Calculated		SS78-SS-30-EPA	8-C		
C161021-30 A		ICPOE Diss. Metals		SS79-SS-00-EPA	8-C		
C161021-30 A		DM-Hardness - Calculated		SS79-SS-00-EPA	8-C		
C161021-33 A		ICPOE Diss. Metals		SS80-SS-00-EPA	8-C		
C161021-33 A		DM-Hardness - Calculated		SS80-SS-00-EPA	8-C		
C161021-36 A		ICPOE Diss. Metals		SS80-SS-90-EPA	8-C		
C161021-36 A		DM-Hardness - Calculated		SS80-SS-90-EPA	8-C		
C161021-39 A		ICPOE Diss. Metals		SW81-SW-00-EPA	8-C		
C161021-39 A		DM-Hardness - Calculated		SW81-SW-00-EPA	8-C		

ANALYSIS SEQUENCE

1612043

Instrument: ICPOE - PE Optima Sequence Date: 12/08/16 00:00 Printed: 12/8/2016 11:55:51AM

Lab Number	Dilut. Factor	Analysis	STD ID	Sample/Std Name	EPA Tag ID	Source Sple	Comments
1612043-CCV2		QC	C601064	Calibration Check		-	
1612043-CCB2		QC		Calibration Blank		-	

ANALYSIS SEQUENCE

1612044

hw/08/16

Instrument: ICPOE - PE Optima Sequence Date: 12/08/16 00:00 Printed: 12/8/2016 12:08:36PM

Lab Number	Dilut. Factor	Analysis	STD ID	Sample/Std Name	EPA Tag ID	Source Sple	Comments
1612044-ICV1		QC	C601064	Initial Cal Check		-	
1612044-SCV1		QC	C601065	Secondary Cal Check		-	
1612044-ICB1		QC		Initial Cal Blank		-	
1612044-CRL1		QC	C601069	Instrument RL Check		-	
1612044-IFA1		QC	C601066	Interference Check A		-	
1612044-IFB1		QC	C601067	Interference Check B		-	
1612044-CCV1		QC	C601064	Calibration Check		-	
1612044-CCB1		QC		Calibration Blank		-	
1612044-CCV2		QC	C601064	Calibration Check		-	
1612044-CCB2		QC		Calibration Blank		-	
1611171-BLK1		QC		Blank		-	
1611171-SRM1		QC		Reference		-	
C161021-02 A		ICPOE Tot. Rec. Metals		SS71-SS-00-EPA	8-B		
1611171-DUP1		QC		Duplicate		C161021-02	
1612044-SRD1		QC		Serial Dilution		C161021-02	
1611171-MS1		QC		Matrix Spike		C161021-02	
C161021-05 A		ICPOE Tot. Rec. Metals		SS72-SS-00-EPA	8-B		
1611171-MS3		QC		Matrix Spike		C161021-05	
C161021-08 A		ICPOE Tot. Rec. Metals		SS73-SS-00-EPA	8-B		
1612044-CCV3		QC	C601064	Calibration Check		-	
1612044-CCB3		QC		Calibration Blank		-	
C161021-11 A		ICPOE Tot. Rec. Metals		SS74-SS-00-EPA	8-B		
C161021-14 A		ICPOE Tot. Rec. Metals		SS75-SS-00-EPA	8-B		
C161021-17 A		ICPOE Tot. Rec. Metals		SS76-SS-00-EPA	8-B		
C161021-20 A		ICPOE Tot. Rec. Metals		SS77-SS-00-EPA	8-B		
C161021-23 A		ICPOE Tot. Rec. Metals		SS78-SS-00-EPA	8-B		
C161021-26 A		ICPOE Tot. Rec. Metals		SS78-SS-30-EPA	8-B		
C161021-29 A		ICPOE Tot. Rec. Metals		SS79-SS-00-EPA	8-B		
C161021-32 A		ICPOE Tot. Rec. Metals		SS80-SS-00-EPA	8-B		
C161021-35 A		ICPOE Tot. Rec. Metals		SS80-SS-90-EPA	8-B		
C161021-38 A		ICPOE Tot. Rec. Metals		SW81-SW-00-EPA	8-B		
1612044-CCV4		QC	C601064	Calibration Check		-	
1612044-CCB4		QC		Calibration Blank		-	

Analytical Sequence

Method : ESAT_2015_1.0

12/08/16

Seq.	Loc.		Sample ID
1	1		Cal Blank
2	9		High Std
3	3		SEQ-ICV
4	10		SEQ-SCV
5	1		SEQ-ICB
6	11		SEQ-CRL
7	12		SEQ-IFA
8	13		SEQ-IFB
9	26		1612038-BLK1
10	27		1612038-BS1
11	28		C161021-03
12	29		1612038-DUP1
13	30		SEQ-SRD1 @5X
14	31		1612038-MS1
15	32		C161021-06
16	33		1612038-MS2
17	34		C161021-09
18	35		Blank 1
19	3		SEQ-CCV
20	1		SEQ-CCB 1
21	36		C161021-12
22	37		C161021-15
23	38		C161021-18
24	39		C161021-21
25	40		C161021-24
26	41		C161021-27
27	42		C161021-30
28	43		C161021-33
29	44		C161021-36
30	45		C161021-39
31	3		SEQ-CCV 2
32	1		SEQ-CCB 2

Analytical Sequence

Method : ESAT_2015_1.0

Seq.	Loc.		Sample ID
1	1		Cal Blank
2	9		High Std
3	3		SEQ-ICV
4	10		SEQ-SCV
5	1		SEQ-ICB
6	11		SEQ-CRL
7	12		SEQ-IFA
8	13		SEQ-IFB
9	26		1611171-BLK1
10	27		1611171-SRM1
11	28		C161021-02
12	29		1611171-DUP1
13	30		SEQ-SRD1 @5X
14	31		1611171-MS1
15	32		C161021-05
16	33		1611171-MS3
17	34		C161021-08
18	35		Blank
19	3		SEQ-CCV
20	1		SEQ-CCB
21	36		C161021-11
22	37		C161021-14
23	38		C161021-17
24	39		C161021-20
25	40		C161021-23
26	41		C161021-26
27	42		C161021-29
28	43		C161021-32
29	44		C161021-35
30	45		C161021-38
31	3		SEQ-CCV
32	1		SEQ-CCB

12/08/16

Sample Information Detail Report
Document Name: A-128_1612038_OED_161208

File Description
A-128 Bonita Seeps and Springs Oct 2016

Parameters Common to All Samples

Batch ID	1612038
Analyst Name	S.VanOvermeiren
Volume Units	mL
Weight Units	g

Parameters That Vary By Sample

Sample No	A/S Location	Sample ID	Remarks
1	26	1612038-BLK1	
2	27	1612038-BS1	
3	28	C161021-03	
4	29	1612038-DUP1	
5	30	SEQ-SRD1 @5X	
6	31	1612038-MS1	
7	32	C161021-06	
8	33	1612038-MS2	
9	34	C161021-09	
10	35	Blank	
11	36	C161021-12	
12	37	C161021-15	
13	38	C161021-18	
14	39	C161021-21	
15	40	C161021-24	
16	41	C161021-27	
17	42	C161021-30	
18	43	C161021-33	
19	44	C161021-36	
20	45	C161021-39	

Sample No	Aliquot Volume	Diluted To Vol.	Matrix Check Sample
1			
2			Recovery 3 of 1
3			
4			Duplicate of 3
5	2	10	5X Dilution of 3
6			Recovery 3 of 3
7			
8			Recovery 3 of 7
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Sample Information Detail Report
Document Name: A-128_1611171_TRA_161208

File Description
A-128 Bonita Seeps and Springs Oct 2016

Parameters Common to All Samples

Batch ID	1611171
Analyst Name	S. VanOvermeiren
Volume Units	mL
Weight Units	g

Parameters That Vary By Sample

Sample No	A/S Location	Sample ID	Remarks
1	26	1611171-BLK1	
2	27	1611171-SRM1	
3	28	C161021-02	
4	29	1611171-DUP1	
5	30	SEQ-SRD1 @5X	
6	31	1611171-MS1	
7	32	C161021-05	
8	33	1611171-MS3	
9	34	C161021-08	
10	35	Blank	
11	36	C161021-11	
12	37	C161021-14	
13	38	C161021-17	
14	39	C161021-20	
15	40	C161021-23	
16	41	C161021-26	
17	42	C161021-29	
18	43	C161021-32	
19	44	C161021-35	
20	45	C161021-38	

Sample No	Aliquot Volume	Diluted To Vol.	Matrix Check Sample
1			
2			Recovery 2 of 1
3			
4			Duplicate of 3
5	2	10	5X Dilution of 3
6			Recovery 1 of 3
7			
8			Recovery 1 of 7
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

12/08/16

Analysis Begun

Start Time: 12/8/2016 7:44:10 AM
Plasma On Time: 12/8/2016 7:13:30 AM
Logged In Analyst: esat
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N3082602Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\2016\A-128 Bonita Seeps Springs\A-128_
Batch ID: 1612038
Results Data Set: A128_1612038_161208
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 1
Autosampler Location: 1
Sample ID: Cal Blank
Date Collected: 12/8/2016 7:44:10 AM
Analyst:
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Nebulizer Parameters: Cal Blank

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: Cal Blank

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc Axial	4240676.3	3466.65	0.08%	100.0	%
Sc Radial	458539.5	6093.83	1.33%	100.0	%
Ag 328.068†	-320.8	5.48	1.71%	[0.00]	ug/L
Al 396.153†	120.4	1.33	1.11%	[0.00]	ug/L
As 193.696†	-20.4	1.74	8.55%	[0.00]	ug/L
Ba 233.527†	-25.9	0.99	3.81%	[0.00]	ug/L
Be 313.107†	-934.0	53.92	5.77%	[0.00]	ug/L
B 249.677†	-443.9	7.82	1.76%	[0.00]	ug/L
Ca 317.933†	7.0	3.39	48.19%	[0.00]	ug/L
Cd 214.440†	-9.4	0.36	3.81%	[0.00]	ug/L
Co 228.616†	-30.6	3.55	11.58%	[0.00]	ug/L
Cr 267.716†	-1.3	2.31	176.60%	[0.00]	ug/L
Cu 324.752†	4647.5	63.31	1.36%	[0.00]	ug/L
Fe 238.204†	14.3	0.68	4.73%	[0.00]	ug/L
K 766.490†	29.5	50.83	172.20%	[0.00]	ug/L
Mg 285.213†	12.3	2.26	18.32%	[0.00]	ug/L
Mn 257.610†	80.7	3.65	4.52%	[0.00]	ug/L
Mo 202.031†	-5.2	1.97	38.05%	[0.00]	ug/L
Na 589.592†	160.4	20.01	12.48%	[0.00]	ug/L
Ni 231.604†	219.4	6.00	2.73%	[0.00]	ug/L
Pb 220.353†	-27.5	1.02	3.72%	[0.00]	ug/L
Sb 206.836†	18.9	1.57	8.29%	[0.00]	ug/L
Se 196.026†	-0.6	4.89	805.25%	[0.00]	ug/L
SiO2 251.603†	230.0	46.54	20.24%	[0.00]	ug/L
Sr 421.552†	41.2	14.29	34.67%	[0.00]	ug/L
Ti 334.940†	49.3	7.23	14.65%	[0.00]	ug/L
Tl 190.801†	-7.9	0.41	5.18%	[0.00]	ug/L
V 290.880†	2498.2	21.03	0.84%	[0.00]	ug/L
Zn 206.200†	-16.3	2.69	16.55%	[0.00]	ug/L

Sequence No.: 2
Sample ID: High Std
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/8/2016 7:47:13 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: High Std

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: High Std

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc Axial	4240065.0	19627.34	0.46%	99.99	%
Sc Radial	458957.7	2818.61	0.61%	100.1	%
Ag 328.068†	57507.8	283.75	0.49%	[500]	ug/L
Al 396.153†	170231.2	1284.03	0.75%	[25000]	ug/L
As 193.696†	1133.8	6.98	0.62%	[5000]	ug/L
Ba 233.527†	21837.2	283.99	1.30%	[1000]	ug/L
Be 313.107†	904516.2	3383.84	0.37%	[1000]	ug/L
B 249.677†	170266.2	1176.79	0.69%	[10000]	ug/L
Ca 317.933†	96502.4	449.33	0.47%	[25000]	ug/L
Cd 214.440†	7472.3	159.74	2.14%	[1000]	ug/L
Co 228.616†	7819.0	33.18	0.42%	[1000]	ug/L
Cr 267.716†	59855.2	901.82	1.51%	[5000]	ug/L
Cu 324.752†	512305.7	3941.95	0.77%	[2000]	ug/L
Fe 238.204†	3356.1	20.97	0.62%	[25000]	ug/L
K 766.490†	97801.7	1034.63	1.06%	[50000]	ug/L
Mg 285.213†	147829.9	1020.58	0.69%	[25000]	ug/L
Mn 257.610†	546872.7	1641.39	0.30%	[2000]	ug/L
Mo 202.031†	1178.7	1.74	0.15%	[1000]	ug/L
Na 589.592†	159921.7	1996.92	1.25%	[25000]	ug/L
Ni 231.604†	29735.4	341.63	1.15%	[5000]	ug/L
Pb 220.353†	5006.1	35.14	0.70%	[5000]	ug/L
Sb 206.836†	2448.4	16.21	0.66%	[5000]	ug/L
Se 196.026†	965.4	5.80	0.60%	[5000]	ug/L
SiO2 251.603†	149405.0	581.75	0.39%	[20000]	ug/L
Sr 421.552†	504827.6	4793.12	0.95%	[1000]	ug/L
Ti 334.940†	376156.8	563.16	0.15%	[1000]	ug/L
Tl 190.801†	2456.7	14.52	0.59%	[5000]	ug/L
V 290.880†	104609.9	1182.69	1.13%	[2000]	ug/L
Zn 206.200†	14056.0	241.97	1.72%	[5000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	115.0	0.00000	1.000000	
Al 396.153	1	Lin, Calc Int	0.0	6.809	0.00000	1.000000	
As 193.696	1	Lin Thru 0	0.0	0.2268	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	21.84	0.00000	1.000000	
Be 313.107	1	Lin Thru 0	0.0	904.5	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	17.03	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	3.860	0.00000	1.000000	
Cd 214.440	1	Lin Thru 0	0.0	7.472	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	7.819	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	11.97	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	256.2	0.00000	1.000000	
Fe 238.204	1	Lin, Calc Int	0.0	0.1342	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1.956	0.00000	1.000000	
Mg 285.213	1	Lin, Calc Int	0.0	5.913	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	273.4	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	1.179	0.00000	1.000000	
Na 589.592	1	Lin, Calc Int	0.0	6.397	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	5.947	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	1.001	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	0.4897	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	0.1931	0.00000	1.000000	
SiO2 251.603	1	Lin, Calc Int	0.0	7.470	0.00000	1.000000	

Sr 421.552	1	Lin, Calc Int	0.0	504.8	0.00000	1.000000
Ti 334.940	1	Lin Thru 0	0.0	376.2	0.00000	1.000000
Tl 190.801	1	Lin Thru 0	0.0	0.4913	0.00000	1.000000
V 290.880	1	Lin Thru 0	0.0	52.30	0.00000	1.000000
Zn 206.200	1	Lin Thru 0	0.0	2.811	0.00000	1.000000

Sequence No.: 3
Sample ID: SEQ-ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/8/2016 7:50:22 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-ICV

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: SEQ-ICV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4351501.3	102.6	%	0.51				0.50%
Sc Radial	458598.1	100.0	%	0.89				0.89%
Ag 328.068†	28788.8	250.4	ug/L	0.97	250.4	ug/L	0.97	0.39%
QC value within limits for Ag 328.068 Recovery = 100.18%								
Al 396.153†	87037.4	12790	ug/L	182.2	12790	ug/L	182.2	1.42%
QC value within limits for Al 396.153 Recovery = 102.33%								
As 193.696†	562.2	2555	ug/L	4.0	2555	ug/L	4.0	0.16%
QC value within limits for As 193.696 Recovery = 102.18%								
Ba 233.527†	11130.1	510.4	ug/L	1.55	510.4	ug/L	1.55	0.30%
QC value within limits for Ba 233.527 Recovery = 102.09%								
Be 313.107†	458634.8	508.3	ug/L	2.16	508.3	ug/L	2.16	0.43%
QC value within limits for Be 313.107 Recovery = 101.67%								
B 249.677†	85667.4	5031	ug/L	19.3	5031	ug/L	19.3	0.38%
QC value within limits for B 249.677 Recovery = 100.63%								
Ca 317.933†	49028.5	12710	ug/L	32.3	12710	ug/L	32.3	0.25%
QC value within limits for Ca 317.933 Recovery = 101.71%								
Cd 214.440†	3773.1	506.0	ug/L	3.89	506.0	ug/L	3.89	0.77%
QC value within limits for Cd 214.440 Recovery = 101.20%								
Co 228.616†	3946.2	504.2	ug/L	3.19	504.2	ug/L	3.19	0.63%
QC value within limits for Co 228.616 Recovery = 100.84%								
Cr 267.716†	30264.8	2539	ug/L	10.2	2539	ug/L	10.2	0.40%
QC value within limits for Cr 267.716 Recovery = 101.56%								
Cu 324.752†	253936.1	995.2	ug/L	7.20	995.2	ug/L	7.20	0.72%
QC value within limits for Cu 324.752 Recovery = 99.52%								
Fe 238.204†	1715.5	12840	ug/L	88.5	12840	ug/L	88.5	0.69%
QC value within limits for Fe 238.204 Recovery = 102.69%								
K 766.490†	49578.0	25310	ug/L	254.2	25310	ug/L	254.2	1.00%
QC value within limits for K 766.490 Recovery = 101.23%								
Mg 285.213†	75868.9	12840	ug/L	165.3	12840	ug/L	165.3	1.29%
QC value within limits for Mg 285.213 Recovery = 102.71%								
Mn 257.610†	279258.5	1021	ug/L	1.3	1021	ug/L	1.3	0.13%
QC value within limits for Mn 257.610 Recovery = 102.15%								
Mo 202.031†	594.1	498.7	ug/L	6.33	498.7	ug/L	6.33	1.27%
QC value within limits for Mo 202.031 Recovery = 99.74%								
Na 589.592†	81814.4	12750	ug/L	239.9	12750	ug/L	239.9	1.88%
QC value within limits for Na 589.592 Recovery = 102.00%								
Ni 231.604†	15126.6	2532	ug/L	5.7	2532	ug/L	5.7	0.22%
QC value within limits for Ni 231.604 Recovery = 101.28%								
Pb 220.353†	2531.7	2538	ug/L	13.6	2538	ug/L	13.6	0.53%
QC value within limits for Pb 220.353 Recovery = 101.53%								
Sb 206.836†	1224.5	2461	ug/L	25.5	2461	ug/L	25.5	1.04%
QC value within limits for Sb 206.836 Recovery = 98.45%								
Se 196.026†	488.2	2555	ug/L	27.2	2555	ug/L	27.2	1.07%
QC value within limits for Se 196.026 Recovery = 102.20%								
SiO2 251.603†	74665.7	10010	ug/L	39.7	10010	ug/L	39.7	0.40%
QC value within limits for SiO2 251.603 Recovery = 100.08%								
Sr 421.552†	257892.2	509.9	ug/L	7.26	509.9	ug/L	7.26	1.42%
QC value within limits for Sr 421.552 Recovery = 101.98%								
Ti 334.940†	189280.1	503.2	ug/L	1.44	503.2	ug/L	1.44	0.29%
QC value within limits for Ti 334.940 Recovery = 100.64%								
Tl 190.801†	1244.0	2555	ug/L	18.8	2555	ug/L	18.8	0.74%
QC value within limits for Tl 190.801 Recovery = 102.20%								
V 290.880†	52680.9	1012	ug/L	0.8	1012	ug/L	0.8	0.08%
QC value within limits for V 290.880 Recovery = 101.18%								
Zn 206.200†	7192.5	2577	ug/L	10.1	2577	ug/L	10.1	0.39%
QC value within limits for Zn 206.200 Recovery = 103.07%								

All analyte(s) passed QC.

Sequence No.: 4
Sample ID: SEQ-SCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/8/2016 7:53:28 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-SCV

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: SEQ-SCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4368334.1	103.0	%	0.69				0.67%
Sc Radial	464293.9	101.3	%	1.19				1.18%
Ag 328.068†	29508.9	256.4	ug/L	1.26	256.4	ug/L	1.26	0.49%
QC value within limits for Ag 328.068 Recovery = 102.54%								
Al 396.153†	7153.2	1049	ug/L	16.2	1049	ug/L	16.2	1.54%
QC value within limits for Al 396.153 Recovery = 104.86%								
As 193.696†	428.4	1939	ug/L	16.3	1939	ug/L	16.3	0.84%
QC value within limits for As 193.696 Recovery = 96.94%								
Ba 233.527†	22757.1	1043	ug/L	5.0	1043	ug/L	5.0	0.48%
QC value within limits for Ba 233.527 Recovery = 104.30%								
Be 313.107†	951682.1	1055	ug/L	2.3	1055	ug/L	2.3	0.22%
QC value within limits for Be 313.107 Recovery = 105.48%								
B 249.677†	17674.4	1038	ug/L	9.5	1038	ug/L	9.5	0.91%
QC value within limits for B 249.677 Recovery = 103.80%								
Ca 317.933†	4030.3	1058	ug/L	19.6	1058	ug/L	19.6	1.85%
QC value within limits for Ca 317.933 Recovery = 105.81%								
Cd 214.440†	7738.8	1036	ug/L	2.8	1036	ug/L	2.8	0.27%
QC value within limits for Cd 214.440 Recovery = 103.64%								
Co 228.616†	8411.2	1076	ug/L	7.2	1076	ug/L	7.2	0.67%
QC value within limits for Co 228.616 Recovery = 107.56%								
Cr 267.716†	12227.0	1032	ug/L	4.9	1032	ug/L	4.9	0.48%
QC value within limits for Cr 267.716 Recovery = 103.21%								
Cu 324.752†	256878.3	1006	ug/L	10.0	1006	ug/L	10.0	1.00%
QC value within limits for Cu 324.752 Recovery = 100.60%								
Fe 238.204†	127.2	1054	ug/L	38.4	1054	ug/L	38.4	3.64%
QC value within limits for Fe 238.204 Recovery = 105.39%								
K 766.490†	10073.4	5138	ug/L	12.1	5138	ug/L	12.1	0.24%
QC value within limits for K 766.490 Recovery = 102.77%								
Mg 285.213†	5982.1	1015	ug/L	13.8	1015	ug/L	13.8	1.36%
QC value within limits for Mg 285.213 Recovery = 101.48%								
Mn 257.610†	281881.3	1031	ug/L	6.3	1031	ug/L	6.3	0.61%
QC value within limits for Mn 257.610 Recovery = 103.11%								
Mo 202.031†	1183.0	1005	ug/L	8.9	1005	ug/L	8.9	0.88%
QC value within limits for Mo 202.031 Recovery = 100.49%								
Na 589.592†	6706.8	1012	ug/L	19.2	1012	ug/L	19.2	1.90%
QC value within limits for Na 589.592 Recovery = 101.16%								
Ni 231.604†	6137.4	1020	ug/L	6.2	1020	ug/L	6.2	0.61%
QC value within limits for Ni 231.604 Recovery = 101.97%								
Pb 220.353†	2071.7	2075	ug/L	1.1	2075	ug/L	1.1	0.06%
QC value within limits for Pb 220.353 Recovery = 103.74%								
Sb 206.836†	950.4	1939	ug/L	2.9	1939	ug/L	2.9	0.15%
QC value within limits for Sb 206.836 Recovery = 96.93%								
Se 196.026†	193.6	1028	ug/L	12.4	1028	ug/L	12.4	1.20%
QC value within limits for Se 196.026 Recovery = 102.82%								
SiO2 251.603†	36865.3	4931	ug/L	36.1	4931	ug/L	36.1	0.73%
QC value within limits for SiO2 251.603 Recovery = 98.63%								
Sr 421.552†	545226.4	1080	ug/L	13.2	1080	ug/L	13.2	1.22%
QC value within limits for Sr 421.552 Recovery = 107.97%								
Ti 334.940†	383948.3	1021	ug/L	0.2	1021	ug/L	0.2	0.02%
QC value within limits for Ti 334.940 Recovery = 102.07%								
Tl 190.801†	2488.2	5090	ug/L	13.4	5090	ug/L	13.4	0.26%
QC value within limits for Tl 190.801 Recovery = 101.79%								
V 290.880†	51920.6	998.0	ug/L	5.97	998.0	ug/L	5.97	0.60%
QC value within limits for V 290.880 Recovery = 99.80%								
Zn 206.200†	2863.1	1026	ug/L	10.5	1026	ug/L	10.5	1.02%
QC value within limits for Zn 206.200 Recovery = 102.64%								

All analyte(s) passed QC.

Sequence No.: 5
Sample ID: SEQ-ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/8/2016 7:56:42 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-ICB

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: SEQ-ICB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4384178.7	103.4	%	0.47				0.45%
Sc Radial	455623.3	99.36	%	0.518				0.52%
Ag 328.068†	8.9	0.0780	ug/L	0.13387	0.0780	ug/L	0.13387	171.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	-0.9	-0.1087	ug/L	0.93803	-0.1087	ug/L	0.93803	862.82%
QC value within limits for Al 396.153 Recovery = Not calculated								
As 193.696†	-3.0	-13.36	ug/L	10.809	-13.36	ug/L	10.809	80.89%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	3.6	0.1625	ug/L	0.03437	0.1625	ug/L	0.03437	21.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	201.9	0.2232	ug/L	0.02259	0.2232	ug/L	0.02259	10.12%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	579.4	34.03	ug/L	1.163	34.03	ug/L	1.163	3.42%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	2.8	0.7409	ug/L	1.89375	0.7409	ug/L	1.89375	255.60%
QC value within limits for Ca 317.933 Recovery = Not calculated								
Cd 214.440†	0.2	0.0228	ug/L	0.01036	0.0228	ug/L	0.01036	45.46%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-0.8	-0.1022	ug/L	0.56296	-0.1022	ug/L	0.56296	551.02%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-0.6	-0.0626	ug/L	0.21598	-0.0626	ug/L	0.21598	344.76%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-138.0	-0.5362	ug/L	0.16603	-0.5362	ug/L	0.16603	30.97%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	2.8	20.67	ug/L	15.613	20.67	ug/L	15.613	75.54%
QC value within limits for Fe 238.204 Recovery = Not calculated								
K 766.490†	98.2	50.22	ug/L	23.999	50.22	ug/L	23.999	47.79%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	3.3	0.5665	ug/L	0.43225	0.5665	ug/L	0.43225	76.30%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	0.8	0.0028	ug/L	0.04225	0.0028	ug/L	0.04225	>999.9%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	0.4	0.3504	ug/L	1.61493	0.3504	ug/L	1.61493	460.93%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	15.0	2.338	ug/L	4.0711	2.338	ug/L	4.0711	174.17%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-13.7	-2.311	ug/L	1.2580	-2.311	ug/L	1.2580	54.43%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	6.2	6.238	ug/L	6.8575	6.238	ug/L	6.8575	109.93%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-1.5	-2.975	ug/L	0.1593	-2.975	ug/L	0.1593	5.35%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	2.5	13.06	ug/L	30.547	13.06	ug/L	30.547	233.92%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	25.9	3.481	ug/L	3.2083	3.481	ug/L	3.2083	92.17%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	25.1	0.049	ug/L	0.0287	0.049	ug/L	0.0287	59.19%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	81.1	0.216	ug/L	0.0183	0.216	ug/L	0.0183	8.48%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	4.6	9.295	ug/L	3.5927	9.295	ug/L	3.5927	38.65%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	-72.1	-1.378	ug/L	0.5161	-1.378	ug/L	0.5161	37.46%
QC value within limits for V 290.880 Recovery = Not calculated								
Zn 206.200†	-0.6	-0.196	ug/L	0.4211	-0.196	ug/L	0.4211	214.63%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 6
Sample ID: SEQ-CRL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/8/2016 7:59:44 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CRL

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: SEQ-CRL

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4287200.1	101.1	%	0.19				0.19%
Sc Radial	464589.0	101.3	%	1.36				1.34%
Ag 328.068†	1146.3	9.980	ug/L	0.1402	9.980	ug/L	0.1402	1.41%
QC value within limits for Ag 328.068 Recovery = 99.80%								
Al 396.153†	672.8	99.67	ug/L	5.206	99.67	ug/L	5.206	5.22%
QC value within limits for Al 396.153 Recovery = 99.67%								
As 193.696†	7.1	33.85	ug/L	9.604	33.85	ug/L	9.604	28.37%
QC value less than the lower limit for As 193.696 Recovery = 67.70%								
Ba 233.527†	222.0	10.21	ug/L	0.133	10.21	ug/L	0.133	1.31%
QC value within limits for Ba 233.527 Recovery = 102.10%								
Be 313.107†	4559.9	5.165	ug/L	0.1041	5.165	ug/L	0.1041	2.02%
QC value within limits for Be 313.107 Recovery = 103.30%								
B 249.677†	4715.7	277.0	ug/L	1.92	277.0	ug/L	1.92	0.69%
QC value within limits for B 249.677 Recovery = 110.78%								
Ca 317.933†	982.3	254.9	ug/L	3.87	254.9	ug/L	3.87	1.52%
QC value within limits for Ca 317.933 Recovery = 101.94%								
Cd 214.440†	76.8	10.32	ug/L	0.397	10.32	ug/L	0.397	3.85%
QC value within limits for Cd 214.440 Recovery = 103.17%								
Co 228.616†	76.9	9.766	ug/L	0.3316	9.766	ug/L	0.3316	3.40%
QC value within limits for Co 228.616 Recovery = 97.66%								
Cr 267.716†	108.7	9.598	ug/L	0.2493	9.598	ug/L	0.2493	2.60%
QC value within limits for Cr 267.716 Recovery = 95.98%								
Cu 324.752†	2476.4	9.764	ug/L	0.2929	9.764	ug/L	0.2929	3.00%
QC value within limits for Cu 324.752 Recovery = 97.64%								
Fe 238.204†	12.4	93.55	ug/L	4.627	93.55	ug/L	4.627	4.95%
QC value within limits for Fe 238.204 Recovery = 93.55%								
K 766.490†	2055.0	1049	ug/L	5.2	1049	ug/L	5.2	0.50%
QC value within limits for K 766.490 Recovery = 104.89%								
Mg 285.213†	5907.4	999.2	ug/L	14.63	999.2	ug/L	14.63	1.46%
QC value within limits for Mg 285.213 Recovery = 99.92%								
Mn 257.610†	2767.2	10.13	ug/L	0.008	10.13	ug/L	0.008	0.08%
QC value within limits for Mn 257.610 Recovery = 101.26%								
Mo 202.031†	11.5	9.503	ug/L	1.8578	9.503	ug/L	1.8578	19.55%
QC value within limits for Mo 202.031 Recovery = 95.03%								
Na 589.592†	6361.0	993.4	ug/L	8.11	993.4	ug/L	8.11	0.82%
QC value within limits for Na 589.592 Recovery = 99.34%								
Ni 231.604†	61.8	10.02	ug/L	1.029	10.02	ug/L	1.029	10.27%
QC value within limits for Ni 231.604 Recovery = 100.16%								
Pb 220.353†	38.1	38.36	ug/L	7.985	38.36	ug/L	7.985	20.82%
QC value within limits for Pb 220.353 Recovery = 127.86%								
Sb 206.836†	23.7	48.36	ug/L	4.547	48.36	ug/L	4.547	9.40%
QC value within limits for Sb 206.836 Recovery = 96.71%								
Se 196.026†	18.2	95.38	ug/L	35.039	95.38	ug/L	35.039	36.74%
QC value within limits for Se 196.026 Recovery = 95.38%								
SiO2 251.603†	1871.7	251.0	ug/L	2.50	251.0	ug/L	2.50	1.00%
QC value within limits for SiO2 251.603 Recovery = 100.42%								
Sr 421.552†	5243.6	10.37	ug/L	0.057	10.37	ug/L	0.057	0.55%
QC value within limits for Sr 421.552 Recovery = 103.68%								
Ti 334.940†	18777.6	49.92	ug/L	0.289	49.92	ug/L	0.289	0.58%
QC value within limits for Ti 334.940 Recovery = 99.84%								
Tl 190.801†	27.7	57.87	ug/L	5.120	57.87	ug/L	5.120	8.85%
QC value within limits for Tl 190.801 Recovery = 115.74%								
V 290.880†	2554.5	48.89	ug/L	0.786	48.89	ug/L	0.786	1.61%
QC value within limits for V 290.880 Recovery = 97.78%								
Zn 206.200†	146.2	52.07	ug/L	0.616	52.07	ug/L	0.616	1.18%
QC value within limits for Zn 206.200 Recovery = 104.15%								

QC Failed. Continue with analysis.

Sequence No.: 7
Sample ID: SEQ-IFA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 12
Date Collected: 12/8/2016 8:02:48 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-IFA

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: SEQ-IFA

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4019516.3	94.78	%	0.660				0.70%
Sc Radial	443124.2	96.64	%	1.503				1.56%
Ag 328.068†	-846.3	2.076	ug/L	0.4945	2.076	ug/L	0.4945	23.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	410435.6	60260	ug/L	852.5	60260	ug/L	852.5	1.41%
QC value within limits for Al 396.153 Recovery = 100.43%								
As 193.696†	-53.9	-17.02	ug/L	19.417	-17.02	ug/L	19.417	114.09%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	12.9	1.334	ug/L	0.0199	1.334	ug/L	0.0199	1.50%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	36.8	-0.3770	ug/L	0.05467	-0.3770	ug/L	0.05467	14.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	-356.0	-20.91	ug/L	1.836	-20.91	ug/L	1.836	8.78%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	1112736.0	288300	ug/L	4793.1	288300	ug/L	4793.1	1.66%
QC value within limits for Ca 317.933 Recovery = 96.09%								
Cd 214.440†	17.5	4.112	ug/L	0.2351	4.112	ug/L	0.2351	5.72%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	48.0	-1.602	ug/L	0.1885	-1.602	ug/L	0.1885	11.77%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-38.0	0.4305	ug/L	0.21766	0.4305	ug/L	0.21766	50.56%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-4982.4	0.7790	ug/L	0.40900	0.7790	ug/L	0.40900	52.50%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	30461.2	226900	ug/L	4907.7	226900	ug/L	4907.7	2.16%
QC value within limits for Fe 238.204 Recovery = 90.77%								
K 766.490†	92.7	-313.6	ug/L	11.65	-313.6	ug/L	11.65	3.72%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	820490.7	138900	ug/L	1998.6	138900	ug/L	1998.6	1.44%
QC value within limits for Mg 285.213 Recovery = 92.58%								
Mn 257.610†	470.0	1.016	ug/L	0.0686	1.016	ug/L	0.0686	6.75%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	19.8	-12.66	ug/L	2.886	-12.66	ug/L	2.886	22.78%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	318908.3	49800	ug/L	631.2	49800	ug/L	631.2	1.27%
QC value within limits for Na 589.592 Recovery = 99.61%								
Ni 231.604†	208.1	7.094	ug/L	0.7568	7.094	ug/L	0.7568	10.67%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	-61.4	3.434	ug/L	13.8886	3.434	ug/L	13.8886	404.47%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	21.5	3.366	ug/L	3.8246	3.366	ug/L	3.8246	113.62%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-16.3	-15.99	ug/L	45.989	-15.99	ug/L	45.989	287.59%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	-73.6	1.155	ug/L	2.0557	1.155	ug/L	2.0557	177.95%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	4640.3	-5.826	ug/L	0.0368	-5.826	ug/L	0.0368	0.63%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	22.4	0.060	ug/L	0.0573	0.060	ug/L	0.0573	96.14%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	10.6	25.67	ug/L	7.843	25.67	ug/L	7.843	30.55%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	1303.5	9.468	ug/L	1.1258	9.468	ug/L	1.1258	11.89%
QC value within limits for V 290.880 Recovery = Not calculated								
Zn 206.200†	0.7	-2.950	ug/L	0.5700	-2.950	ug/L	0.5700	19.32%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 8
Sample ID: SEQ-IFB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/8/2016 8:06:30 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-IFB

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: SEQ-IFB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4009847.0	94.56	%	0.107				0.11%
Sc Radial	442444.5	96.49	%	0.776				0.80%
Ag 328.068†	35016.6	313.8	ug/L	0.78	313.8	ug/L	0.78	0.25%
QC value within limits for Ag 328.068 Recovery = 104.60%								
Al 396.153†	418942.8	61520	ug/L	901.9	61520	ug/L	901.9	1.47%
QC value within limits for Al 396.153 Recovery = 102.53%								
As 193.696†	160.8	953.1	ug/L	34.63	953.1	ug/L	34.63	3.63%
QC value within limits for As 193.696 Recovery = 95.31%								
Ba 233.527†	6404.8	294.4	ug/L	0.55	294.4	ug/L	0.55	0.19%
QC value within limits for Ba 233.527 Recovery = 98.14%								
Be 313.107†	88304.6	99.82	ug/L	0.191	99.82	ug/L	0.191	0.19%
QC value within limits for Be 313.107 Recovery = 99.82%								
B 249.677†	8096.1	475.5	ug/L	3.01	475.5	ug/L	3.01	0.63%
QC value within limits for B 249.677 Recovery = 95.10%								
Ca 317.933†	1121523.4	290600	ug/L	2296.2	290600	ug/L	2296.2	0.79%
QC value within limits for Ca 317.933 Recovery = 96.85%								
Cd 214.440†	2193.9	295.9	ug/L	0.92	295.9	ug/L	0.92	0.31%
QC value within limits for Cd 214.440 Recovery = 98.65%								
Co 228.616†	2399.6	298.0	ug/L	0.92	298.0	ug/L	0.92	0.31%
QC value within limits for Co 228.616 Recovery = 99.34%								
Cr 267.716†	3464.1	296.2	ug/L	0.63	296.2	ug/L	0.63	0.21%
QC value within limits for Cr 267.716 Recovery = 98.73%								
Cu 324.752†	74701.5	313.8	ug/L	0.64	313.8	ug/L	0.64	0.20%
QC value within limits for Cu 324.752 Recovery = 104.59%								
Fe 238.204†	30699.9	228700	ug/L	3380.0	228700	ug/L	3380.0	1.48%
QC value within limits for Fe 238.204 Recovery = 91.49%								
K 766.490†	40843.5	20510	ug/L	388.4	20510	ug/L	388.4	1.89%
QC value within limits for K 766.490 Recovery = 102.54%								
Mg 285.213†	833216.9	141000	ug/L	1924.6	141000	ug/L	1924.6	1.36%
QC value within limits for Mg 285.213 Recovery = 94.01%								
Mn 257.610†	52719.8	192.4	ug/L	0.26	192.4	ug/L	0.26	0.13%
QC value within limits for Mn 257.610 Recovery = 96.21%								
Mo 202.031†	376.8	291.6	ug/L	2.52	291.6	ug/L	2.52	0.87%
QC value within limits for Mo 202.031 Recovery = 97.21%								
Na 589.592†	325555.9	50820	ug/L	922.1	50820	ug/L	922.1	1.81%
QC value within limits for Na 589.592 Recovery = 101.63%								
Ni 231.604†	1899.8	285.0	ug/L	1.37	285.0	ug/L	1.37	0.48%
QC value within limits for Ni 231.604 Recovery = 94.99%								
Pb 220.353†	920.6	987.8	ug/L	4.25	987.8	ug/L	4.25	0.43%
QC value within limits for Pb 220.353 Recovery = 98.78%								
Sb 206.836†	501.1	985.1	ug/L	10.85	985.1	ug/L	10.85	1.10%
QC value within limits for Sb 206.836 Recovery = 98.51%								
Se 196.026†	84.3	527.5	ug/L	11.66	527.5	ug/L	11.66	2.21%
QC value within limits for Se 196.026 Recovery = 105.49%								
SiO2 251.603†	3707.4	511.4	ug/L	1.25	511.4	ug/L	1.25	0.25%
QC value within limits for SiO2 251.603 Recovery = 102.27%								
Sr 421.552†	512632.8	1000	ug/L	16.5	1000	ug/L	16.5	1.65%
QC value within limits for Sr 421.552 Recovery = 100.01%								
Ti 334.940†	384643.6	1023	ug/L	1.2	1023	ug/L	1.2	0.12%
QC value within limits for Ti 334.940 Recovery = 102.26%								
Tl 190.801†	471.2	985.9	ug/L	10.97	985.9	ug/L	10.97	1.11%
QC value within limits for Tl 190.801 Recovery = 98.59%								
V 290.880†	16679.4	304.7	ug/L	1.06	304.7	ug/L	1.06	0.35%
QC value within limits for V 290.880 Recovery = 101.57%								
Zn 206.200†	803.8	285.0	ug/L	2.89	285.0	ug/L	2.89	1.01%
QC value within limits for Zn 206.200 Recovery = 94.99%								

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: 1612038-BLK1
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 26
Date Collected: 12/8/2016 8:10:15 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1612038-BLK1

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: 1612038-BLK1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4359026.5	102.8	%	0.41				0.40%
Sc Radial	456004.4	99.45	%	0.234				0.24%
Ag 328.068†	27.9	0.2500	ug/L	0.16420	0.2500	ug/L	0.16420	65.68%
Al 396.153†	237.1	34.82	ug/L	13.425	34.82	ug/L	13.425	38.55%
As 193.696†	0.8	3.701	ug/L	5.5541	3.701	ug/L	5.5541	150.08%
Ba 233.527†	4.3	0.1989	ug/L	0.16476	0.1989	ug/L	0.16476	82.82%
Be 313.107†	201.8	0.2237	ug/L	0.03163	0.2237	ug/L	0.03163	14.14%
B 249.677†	258.4	15.18	ug/L	0.278	15.18	ug/L	0.278	1.84%
Ca 317.933†	625.5	162.1	ug/L	36.70	162.1	ug/L	36.70	22.64%
Cd 214.440†	-0.5	-0.0716	ug/L	0.36246	-0.0716	ug/L	0.36246	506.03%
Co 228.616†	-2.3	-0.3021	ug/L	0.42399	-0.3021	ug/L	0.42399	140.35%
Cr 267.716†	1.6	0.1391	ug/L	0.35333	0.1391	ug/L	0.35333	253.93%
Cu 324.752†	-6.2	-0.0073	ug/L	0.43973	-0.0073	ug/L	0.43973	>999.9%
Fe 238.204†	24.6	183.0	ug/L	36.23	183.0	ug/L	36.23	19.80%
K 766.490†	114.8	58.52	ug/L	22.279	58.52	ug/L	22.279	38.07%
Mg 285.213†	491.8	83.26	ug/L	19.961	83.26	ug/L	19.961	23.98%
Mn 257.610†	-1.8	-0.0071	ug/L	0.01796	-0.0071	ug/L	0.01796	252.25%
Mo 202.031†	0.3	0.2520	ug/L	1.61899	0.2520	ug/L	1.61899	642.55%
Na 589.592†	154.4	24.10	ug/L	8.805	24.10	ug/L	8.805	36.53%
Ni 231.604†	-6.9	-1.182	ug/L	0.0733	-1.182	ug/L	0.0733	6.20%
Pb 220.353†	8.3	8.326	ug/L	1.4911	8.326	ug/L	1.4911	17.91%
Sb 206.836†	-2.1	-4.323	ug/L	2.8548	-4.323	ug/L	2.8548	66.04%
Se 196.026†	-0.9	-4.692	ug/L	24.4319	-4.692	ug/L	24.4319	520.74%
SiO2 251.603†	-1.3	-0.1599	ug/L	3.60797	-0.1599	ug/L	3.60797	>999.9%
Sr 421.552†	251.7	0.487	ug/L	0.0998	0.487	ug/L	0.0998	20.51%
Ti 334.940†	145.5	0.387	ug/L	0.1171	0.387	ug/L	0.1171	30.27%
Tl 190.801†	4.4	8.918	ug/L	7.0920	8.918	ug/L	7.0920	79.52%
V 290.880†	5.1	0.086	ug/L	1.0241	0.086	ug/L	1.0241	>999.9%
Zn 206.200†	-0.6	-0.228	ug/L	1.5842	-0.228	ug/L	1.5842	695.38%

Sequence No.: 10
Sample ID: 1612038-BS1
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 27
Date Collected: 12/8/2016 8:13:18 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1612038-BS1

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: 1612038-BS1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4313365.1	101.7	%	0.42				0.41%
Sc Radial	458130.0	99.91	%	0.340				0.34%
Ag 328.068†	11155.1	97.34	ug/L	0.235	97.34	ug/L	0.235	0.24%
Al 396.153†	69543.3	10220	ug/L	3.9	10220	ug/L	3.9	0.04%
As 193.696†	12.0	83.11	ug/L	9.956	83.11	ug/L	9.956	11.98%
Ba 233.527†	2174.1	99.69	ug/L	0.390	99.69	ug/L	0.390	0.39%
Be 313.107†	92935.0	102.8	ug/L	0.56	102.8	ug/L	0.56	0.55%
B 249.677†	107.3	6.303	ug/L	0.0799	6.303	ug/L	0.0799	1.27%
Ca 317.933†	39438.4	10220	ug/L	14.3	10220	ug/L	14.3	0.14%
Cd 214.440†	756.7	101.6	ug/L	0.39	101.6	ug/L	0.39	0.38%
Co 228.616†	792.0	101.2	ug/L	0.48	101.2	ug/L	0.48	0.48%
Cr 267.716†	1161.1	98.19	ug/L	0.459	98.19	ug/L	0.459	0.47%
Cu 324.752†	23800.9	94.12	ug/L	0.351	94.12	ug/L	0.351	0.37%
Fe 238.204†	1377.5	10270	ug/L	63.1	10270	ug/L	63.1	0.61%
K 766.490†	20032.6	10210	ug/L	29.9	10210	ug/L	29.9	0.29%
Mg 285.213†	60535.7	10240	ug/L	13.1	10240	ug/L	13.1	0.13%
Mn 257.610†	26473.4	96.84	ug/L	0.415	96.84	ug/L	0.415	0.43%
Mo 202.031†	114.4	95.38	ug/L	1.893	95.38	ug/L	1.893	1.98%
Na 589.592†	65290.4	10200	ug/L	66.2	10200	ug/L	66.2	0.65%
Ni 231.604†	590.0	95.49	ug/L	1.656	95.49	ug/L	1.656	1.73%
Pb 220.353†	94.8	99.68	ug/L	4.500	99.68	ug/L	4.500	4.52%
Sb 206.836†	48.0	95.34	ug/L	0.810	95.34	ug/L	0.810	0.85%
Se 196.026†	95.3	498.4	ug/L	21.59	498.4	ug/L	21.59	4.33%
SiO2 251.603†	-45.2	-6.508	ug/L	1.0229	-6.508	ug/L	1.0229	15.72%
Sr 421.552†	267875.1	529.9	ug/L	2.37	529.9	ug/L	2.37	0.45%
Ti 334.940†	-59.0	-0.157	ug/L	0.0262	-0.157	ug/L	0.0262	16.69%
Tl 190.801†	53.7	111.2	ug/L	5.03	111.2	ug/L	5.03	4.53%
V 290.880†	5010.5	95.42	ug/L	0.695	95.42	ug/L	0.695	0.73%
Zn 206.200†	279.6	100.2	ug/L	1.50	100.2	ug/L	1.50	1.49%

Matrix Recovery Check: 1612038-BS1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al 396.153	10130	10220	3.892	ug/L	100.8
Ca 317.933	10260	10220	14.318	ug/L	99.6
Fe 238.204	10280	10270	63.097	ug/L	99.9
K 766.490	10160	10210	29.930	ug/L	100.5
Mg 285.213	10180	10240	13.139	ug/L	100.6
Na 589.592	10120	10200	66.183	ug/L	100.7
Sr 421.552	500.5	529.9	2.370	ug/L	105.9
Ag 328.068	100.3	97.34	0.235	ug/L	97.1
As 193.696	103.7	83.11	9.956	ug/L	79.4
Ba 233.527	100.2	99.69	0.390	ug/L	99.5
Be 313.107	100.2	102.8	0.561	ug/L	102.6
Cd 214.440	99.93	101.6	0.390	ug/L	101.7
Co 228.616	99.70	101.2	0.483	ug/L	101.5
Cr 267.716	100.1	98.19	0.459	ug/L	98.1
Cu 324.752	99.99	94.12	0.351	ug/L	94.1
Mn 257.610	99.99	96.84	0.415	ug/L	96.9
Mo 202.031	100.3	95.38	1.893	ug/L	95.1
Ni 231.604	98.82	95.49	1.656	ug/L	96.7
Pb 220.353	108.3	99.68	4.500	ug/L	91.4
Sb 206.836	95.68	95.34	0.810	ug/L	99.7
Se 196.026	495.3	498.4	21.587	ug/L	100.6
SiO2 251.603	5000	-6.508	1.023	ug/L	-0.1

Tl 190.801	108.9	111.2	5.035	ug/L	102.3
V 290.880	100.1	95.42	0.695	ug/L	95.3
Zn 206.200	99.77	100.2	1.498	ug/L	100.4

Sequence No.: 11
Sample ID: C161021-03
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 28
Date Collected: 12/8/2016 8:16:22 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-03

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: C161021-03

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4171279.7	98.36	%	0.172				0.18%
Sc Radial	452625.6	98.71	%	0.708				0.72%
Ag 328.068†	10.3	0.0568	ug/L	0.08466	0.0568	ug/L	0.08466	148.93%
Al 396.153†	464.3	45.52	ug/L	3.576	45.52	ug/L	3.576	7.86%
As 193.696†	-11.8	-24.35	ug/L	13.107	-24.35	ug/L	13.107	53.83%
Ba 233.527†	175.0	8.062	ug/L	0.0927	8.062	ug/L	0.0927	1.15%
Be 313.107†	396.5	0.2211	ug/L	0.01579	0.2211	ug/L	0.01579	7.14%
B 249.677†	-108.8	-6.388	ug/L	0.3674	-6.388	ug/L	0.3674	5.75%
Ca 317.933†	483036.8	125100	ug/L	891.2	125100	ug/L	891.2	0.71%
Cd 214.440†	-4.6	-0.0544	ug/L	0.31087	-0.0544	ug/L	0.31087	571.49%
Co 228.616†	68.8	9.727	ug/L	0.6002	9.727	ug/L	0.6002	6.17%
Cr 267.716†	-2.7	0.1724	ug/L	0.05776	0.1724	ug/L	0.05776	33.50%
Cu 324.752†	35.1	1.010	ug/L	0.2774	1.010	ug/L	0.2774	27.48%
Fe 238.204†	643.4	4807	ug/L	39.4	4807	ug/L	39.4	0.82%
K 766.490†	1559.6	693.6	ug/L	16.36	693.6	ug/L	16.36	2.36%
Mg 285.213†	34626.2	5859	ug/L	80.0	5859	ug/L	80.0	1.37%
Mn 257.610†	584314.8	2137	ug/L	6.7	2137	ug/L	6.7	0.31%
Mo 202.031†	12.3	-0.6755	ug/L	1.25737	-0.6755	ug/L	1.25737	186.14%
Na 589.592†	13981.6	2153	ug/L	54.9	2153	ug/L	54.9	2.55%
Ni 231.604†	44.7	-2.828	ug/L	0.8674	-2.828	ug/L	0.8674	30.67%
Pb 220.353†	-7.8	-0.3138	ug/L	1.50751	-0.3138	ug/L	1.50751	480.41%
Sb 206.836†	-1.8	0.8076	ug/L	3.61184	0.8076	ug/L	3.61184	447.23%
Se 196.026†	3.8	1.597	ug/L	40.1664	1.597	ug/L	40.1664	>999.9%
SiO2 251.603†	111357.7	14910	ug/L	25.7	14910	ug/L	25.7	0.17%
Sr 421.552†	570824.3	1130	ug/L	11.2	1130	ug/L	11.2	0.99%
Ti 334.940†	-29.5	-0.078	ug/L	0.0177	-0.078	ug/L	0.0177	22.53%
Tl 190.801†	3.7	10.90	ug/L	0.946	10.90	ug/L	0.946	8.68%
V 290.880†	134.4	0.631	ug/L	0.9461	0.631	ug/L	0.9461	149.89%
Zn 206.200†	862.8	305.2	ug/L	3.46	305.2	ug/L	3.46	1.13%

Sequence No.: 12
Sample ID: 1612038-DUP1
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 29
Date Collected: 12/8/2016 8:19:33 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1612038-DUP1

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: 1612038-DUP1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4244136.0	100.1	%	0.22				0.22%
Sc Radial	461372.1	100.6	%	2.09				2.07%
Ag 328.068†	29.9	0.2164	ug/L	0.13192	0.2164	ug/L	0.13192	60.96%
Al 396.153†	442.7	42.81	ug/L	8.608	42.81	ug/L	8.608	20.11%
As 193.696†	-10.7	-19.83	ug/L	2.790	-19.83	ug/L	2.790	14.06%
Ba 233.527†	175.8	8.096	ug/L	0.0920	8.096	ug/L	0.0920	1.14%
Be 313.107†	432.9	0.2651	ug/L	0.03741	0.2651	ug/L	0.03741	14.11%
B 249.677†	-123.4	-7.247	ug/L	0.1525	-7.247	ug/L	0.1525	2.10%
Ca 317.933†	475123.3	123100	ug/L	3621.2	123100	ug/L	3621.2	2.94%
Cd 214.440†	-5.9	-0.2361	ug/L	0.08708	-0.2361	ug/L	0.08708	36.88%
Co 228.616†	67.2	9.518	ug/L	0.1773	9.518	ug/L	0.1773	1.86%
Cr 267.716†	-3.2	0.1079	ug/L	0.00178	0.1079	ug/L	0.00178	1.64%
Cu 324.752†	-72.3	0.5833	ug/L	0.17800	0.5833	ug/L	0.17800	30.51%
Fe 238.204†	629.5	4703	ug/L	132.2	4703	ug/L	132.2	2.81%
K 766.490†	1491.0	660.3	ug/L	22.79	660.3	ug/L	22.79	3.45%
Mg 285.213†	33647.7	5694	ug/L	176.9	5694	ug/L	176.9	3.11%
Mn 257.610†	583153.2	2133	ug/L	4.2	2133	ug/L	4.2	0.20%
Mo 202.031†	11.0	-1.593	ug/L	3.1264	-1.593	ug/L	3.1264	196.22%
Na 589.592†	13625.0	2097	ug/L	58.9	2097	ug/L	58.9	2.81%
Ni 231.604†	44.2	-2.771	ug/L	1.1677	-2.771	ug/L	1.1677	42.14%
Pb 220.353†	-6.4	0.9133	ug/L	2.94901	0.9133	ug/L	2.94901	322.91%
Sb 206.836†	-6.4	-8.596	ug/L	7.2179	-8.596	ug/L	7.2179	83.97%
Se 196.026†	12.7	48.07	ug/L	22.534	48.07	ug/L	22.534	46.87%
SiO2 251.603†	110694.8	14820	ug/L	129.5	14820	ug/L	129.5	0.87%
Sr 421.552†	563086.5	1115	ug/L	34.7	1115	ug/L	34.7	3.11%
Ti 334.940†	-45.3	-0.120	ug/L	0.0524	-0.120	ug/L	0.0524	43.56%
Tl 190.801†	8.9	21.38	ug/L	3.837	21.38	ug/L	3.837	17.95%
V 290.880†	60.2	-0.753	ug/L	0.4638	-0.753	ug/L	0.4638	61.61%
Zn 206.200†	867.9	307.1	ug/L	0.85	307.1	ug/L	0.85	0.28%

Duplicate Check: 1612038-DUP1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Sc Radial	98.71	100.6	2.086	%	1.9
Al 396.153	45.52	42.81	8.608	ug/L	6.1
Ca 317.933	125100	123100	3621.194	ug/L	1.7
Fe 238.204	4807	4703	132.181	ug/L	2.2
K 766.490	693.6	660.3	22.790	ug/L	4.9
Mg 285.213	5859	5694	176.921	ug/L	2.9
Na 589.592	2153	2097	58.915	ug/L	2.6
Sr 421.552	1130	1115	34.660	ug/L	1.4
Sc Axial	98.36	100.1	0.222	%	1.7
Ag 328.068	0.0568	0.2164	0.132	ug/L	116.8
As 193.696	-24.35	-19.83	2.790	ug/L	-20.4
Ba 233.527	8.062	8.096	0.092	ug/L	0.4
Be 313.107	0.2211	0.2651	0.037	ug/L	18.1
B 249.677	-6.388	-7.247	0.153	ug/L	-12.6
Cd 214.440	-0.0544	-0.2361	0.087	ug/L	-125.1
Co 228.616	9.727	9.518	0.177	ug/L	2.2
Cr 267.716	0.1724	0.1079	0.002	ug/L	46.0
Cu 324.752	1.010	0.5833	0.178	ug/L	53.5
Mn 257.610	2137	2133	4.225	ug/L	0.2
Mo 202.031	-0.6755	-1.593	3.126	ug/L	-80.9
Ni 231.604	-2.828	-2.771	1.168	ug/L	-2.0
Pb 220.353	-0.3138	0.9133	2.949	ug/L	409.4

Sb 206.836	0.8076	-8.596	7.218	ug/L	-241.5
Se 196.026	1.597	48.07	22.534	ug/L	187.1
SiO2 251.603	14910	14820	129.507	ug/L	0.6
Ti 334.940	-0.078	-0.120	0.052	ug/L	-42.1
Tl 190.801	10.90	21.38	3.837	ug/L	64.9
V 290.880	0.631	-0.753	0.464	ug/L	-2275.5
Zn 206.200	305.2	307.1	0.849	ug/L	0.6

Sequence No.: 13
Sample ID: SEQ-SRD1 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 30
Date Collected: 12/8/2016 8:22:45 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-SRD1 @5X

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: SEQ-SRD1 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4359744.1	102.8	%	0.33				0.32%
Sc Radial	459323.5	100.2	%	0.59				0.59%
Ag 328.068†	21.2	0.1756	ug/L	0.11760	0.8782	ug/L	0.58799	66.95%
Al 396.153†	80.6	7.288	ug/L	6.7210	36.44	ug/L	33.605	92.21%
As 193.696†	0.4	7.324	ug/L	9.2600	36.62	ug/L	46.300	126.43%
Ba 233.527†	36.1	1.661	ug/L	0.0549	8.307	ug/L	0.2744	3.30%
Be 313.107†	202.3	0.1813	ug/L	0.01533	0.9063	ug/L	0.07663	8.46%
B 249.677†	37.5	2.200	ug/L	0.1446	11.00	ug/L	0.723	6.57%
Ca 317.933†	94471.8	24480	ug/L	40.4	122400	ug/L	202.2	0.17%
Cd 214.440†	0.1	0.1234	ug/L	0.15636	0.6169	ug/L	0.78182	126.73%
Co 228.616†	10.1	1.475	ug/L	0.3560	7.375	ug/L	1.7800	24.13%
Cr 267.716†	0.1	0.0787	ug/L	0.31693	0.3935	ug/L	1.58467	402.69%
Cu 324.752†	-140.0	-0.3718	ug/L	0.20342	-1.859	ug/L	1.0171	54.71%
Fe 238.204†	130.0	971.2	ug/L	16.50	4856	ug/L	82.5	1.70%
K 766.490†	356.5	161.9	ug/L	19.67	809.5	ug/L	98.37	12.15%
Mg 285.213†	6741.2	1141	ug/L	4.2	5704	ug/L	21.0	0.37%
Mn 257.610†	116956.4	427.8	ug/L	0.52	2139	ug/L	2.6	0.12%
Mo 202.031†	6.4	3.293	ug/L	0.8595	16.47	ug/L	4.298	26.10%
Na 589.592†	2698.9	415.4	ug/L	3.86	2077	ug/L	19.3	0.93%
Ni 231.604†	10.4	-0.2958	ug/L	2.30126	-1.479	ug/L	11.5063	777.89%
Pb 220.353†	-1.1	0.3651	ug/L	3.87544	1.826	ug/L	19.3772	>999.9%
Sb 206.836†	-1.8	-2.782	ug/L	4.2240	-13.91	ug/L	21.120	151.84%
Se 196.026†	5.0	22.13	ug/L	15.477	110.7	ug/L	77.39	69.93%
SiO2 251.603†	21229.5	2842	ug/L	11.7	14210	ug/L	58.5	0.41%
Sr 421.552†	113308.7	224.3	ug/L	1.03	1121	ug/L	5.1	0.46%
Ti 334.940†	-25.0	-0.066	ug/L	0.0514	-0.332	ug/L	0.2568	77.34%
Tl 190.801†	4.2	9.170	ug/L	3.5166	45.85	ug/L	17.583	38.35%
V 290.880†	-4.3	-0.448	ug/L	0.5606	-2.240	ug/L	2.8030	125.14%
Zn 206.200†	168.3	59.54	ug/L	0.568	297.7	ug/L	2.84	0.95%

Dilution Check: SEQ-SRD1 @5X

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Sc Radial	19.74	100.2	0.589	%	407.4
Al 396.153	9.105	7.288	6.721	ug/L	19.9
Ca 317.933	25030	24480	40.444	ug/L	2.2
Fe 238.204	961.3	971.2	16.504	ug/L	1.0
K 766.490	138.7	161.9	19.674	ug/L	16.7
Mg 285.213	1172	1141	4.190	ug/L	2.7
Na 589.592	430.5	415.4	3.862	ug/L	3.5
Sr 421.552	226.0	224.3	1.026	ug/L	0.7
Sc Axial	19.67	102.8	0.326	%	422.6
Ag 328.068	0.0114	0.1756	0.118	ug/L	1444.9
As 193.696	-4.870	7.324	9.260	ug/L	-250.4
Ba 233.527	1.612	1.661	0.055	ug/L	3.0
Be 313.107	0.0442	0.1813	0.015	ug/L	309.8
B 249.677	-1.278	2.200	0.145	ug/L	-272.2
Cd 214.440	-0.0109	0.1234	0.156	ug/L	-1234.1
Co 228.616	1.945	1.475	0.356	ug/L	24.2
Cr 267.716	0.0345	0.0787	0.317	ug/L	128.2
Cu 324.752	0.2019	-0.3718	0.203	ug/L	284.2
Mn 257.610	427.5	427.8	0.519	ug/L	0.1
Mo 202.031	-0.1351	3.293	0.860	ug/L	-2537.5
Ni 231.604	-0.5656	-0.2958	2.301	ug/L	-47.7
Pb 220.353	-0.0628	0.3651	3.875	ug/L	-681.8

Sb 206.836	0.1615	-2.782	4.224	ug/L	1822.3
Se 196.026	0.3195	22.13	15.477	ug/L	6828.1
SiO2 251.603	2981	2842	11.702	ug/L	4.7
Ti 334.940	-0.016	-0.066	0.051	ug/L	-323.0
Tl 190.801	2.180	9.170	3.517	ug/L	320.6
V 290.880	0.126	-0.448	0.561	ug/L	454.9
Zn 206.200	61.05	59.54	0.568	ug/L	2.5

Sequence No.: 14
Sample ID: 1612038-MS1
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 31
Date Collected: 12/8/2016 8:25:48 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1612038-MS1

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: 1612038-MS1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4265202.2	100.6	%	0.21				0.21%
Sc Radial	448359.6	97.78	%	0.217				0.22%
Ag 328.068†	11087.2	96.71	ug/L	0.305	96.71	ug/L	0.305	0.32%
Al 396.153†	71195.1	10440	ug/L	52.6	10440	ug/L	52.6	0.50%
As 193.696†	5.9	83.41	ug/L	17.025	83.41	ug/L	17.025	20.41%
Ba 233.527†	2277.7	104.5	ug/L	0.26	104.5	ug/L	0.26	0.25%
Be 313.107†	90493.7	99.86	ug/L	0.479	99.86	ug/L	0.479	0.48%
B 249.677†	-199.6	-11.72	ug/L	0.163	-11.72	ug/L	0.163	1.39%
Ca 317.933†	508939.4	131900	ug/L	1417.3	131900	ug/L	1417.3	1.07%
Cd 214.440†	722.7	97.61	ug/L	1.026	97.61	ug/L	1.026	1.05%
Co 228.616†	824.7	106.3	ug/L	0.54	106.3	ug/L	0.54	0.51%
Cr 267.716†	1126.5	95.67	ug/L	0.791	95.67	ug/L	0.791	0.83%
Cu 324.752†	24184.0	96.46	ug/L	0.783	96.46	ug/L	0.783	0.81%
Fe 238.204†	1996.0	14890	ug/L	94.3	14890	ug/L	94.3	0.63%
K 766.490†	22262.2	11250	ug/L	105.7	11250	ug/L	105.7	0.94%
Mg 285.213†	94301.1	15960	ug/L	109.0	15960	ug/L	109.0	0.68%
Mn 257.610†	590822.2	2161	ug/L	7.1	2161	ug/L	7.1	0.33%
Mo 202.031†	120.6	89.91	ug/L	1.818	89.91	ug/L	1.818	2.02%
Na 589.592†	80383.0	12520	ug/L	37.0	12520	ug/L	37.0	0.30%
Ni 231.604†	596.0	86.44	ug/L	2.224	86.44	ug/L	2.224	2.57%
Pb 220.353†	87.7	99.88	ug/L	6.320	99.88	ug/L	6.320	6.33%
Sb 206.836†	47.0	97.68	ug/L	3.833	97.68	ug/L	3.833	3.92%
Se 196.026†	101.3	511.5	ug/L	7.10	511.5	ug/L	7.10	1.39%
SiO2 251.603†	108266.2	14490	ug/L	84.0	14490	ug/L	84.0	0.58%
Sr 421.552†	825261.7	1633	ug/L	10.5	1633	ug/L	10.5	0.64%
Ti 334.940†	-151.5	-0.403	ug/L	0.0248	-0.403	ug/L	0.0248	6.16%
Tl 190.801†	54.9	117.1	ug/L	2.55	117.1	ug/L	2.55	2.18%
V 290.880†	5082.1	94.88	ug/L	0.236	94.88	ug/L	0.236	0.25%
Zn 206.200†	1096.4	389.1	ug/L	2.77	389.1	ug/L	2.77	0.71%

Matrix Recovery Check: 1612038-MS1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al 396.153	10150	10440	52.557	ug/L	102.9
Ca 317.933	135200	131900	1417.334	ug/L	66.5
Fe 238.204	14910	14890	94.328	ug/L	99.8
K 766.490	10790	11250	105.724	ug/L	104.5
Mg 285.213	15960	15960	108.977	ug/L	100.0
Na 589.592	12250	12520	36.968	ug/L	102.7
Sr 421.552	1630	1633	10.470	ug/L	100.7
Ag 328.068	100.1	96.71	0.305	ug/L	96.7
As 193.696	75.65	83.41	17.025	ug/L	107.8
Ba 233.527	108.1	104.5	0.257	ug/L	96.4
Be 313.107	100.2	99.86	0.479	ug/L	99.6
Cd 214.440	99.95	97.61	1.026	ug/L	97.7
Co 228.616	109.7	106.3	0.544	ug/L	96.6
Cr 267.716	100.2	95.67	0.791	ug/L	95.5
Cu 324.752	101.0	96.46	0.783	ug/L	95.4
Mn 257.610	2237	2161	7.098	ug/L	23.8
Mo 202.031	99.32	89.91	1.818	ug/L	90.6
Ni 231.604	97.17	86.44	2.224	ug/L	89.3
Pb 220.353	99.69	99.88	6.320	ug/L	100.2
Sb 206.836	100.8	97.68	3.833	ug/L	96.9
Se 196.026	501.6	511.5	7.103	ug/L	102.0
SiO2 251.603	19910	14490	83.967	ug/L	-8.3

Tl 190.801	110.9	117.1	2.554	ug/L	106.2
V 290.880	100.6	94.88	0.236	ug/L	94.3
Zn 206.200	405.2	389.1	2.771	ug/L	83.9

Sequence No.: 15
Sample ID: C161021-06
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 32
Date Collected: 12/8/2016 8:28:54 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-06

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: C161021-06

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4218880.5	99.49	%	0.497				0.50%
Sc Radial	460294.1	100.4	%	0.55				0.55%
Ag 328.068†	70.6	0.6495	ug/L	0.07867	0.6495	ug/L	0.07867	12.11%
Al 396.153†	1040.6	105.1	ug/L	1.97	105.1	ug/L	1.97	1.88%
As 193.696†	-14.5	-24.17	ug/L	16.502	-24.17	ug/L	16.502	68.26%
Ba 233.527†	158.5	7.217	ug/L	0.1735	7.217	ug/L	0.1735	2.40%
Be 313.107†	669.3	0.3436	ug/L	0.03245	0.3436	ug/L	0.03245	9.45%
B 249.677†	-274.5	-16.12	ug/L	0.377	-16.12	ug/L	0.377	2.34%
Ca 317.933†	776218.8	201100	ug/L	2253.8	201100	ug/L	2253.8	1.12%
Cd 214.440†	-6.9	-0.4546	ug/L	0.64232	-0.4546	ug/L	0.64232	141.31%
Co 228.616†	218.7	29.03	ug/L	0.541	29.03	ug/L	0.541	1.86%
Cr 267.716†	2.1	0.6323	ug/L	0.27201	0.6323	ug/L	0.27201	43.02%
Cu 324.752†	173.9	1.397	ug/L	0.2477	1.397	ug/L	0.2477	17.73%
Fe 238.204†	973.2	7271	ug/L	46.7	7271	ug/L	46.7	0.64%
K 766.490†	2758.5	1241	ug/L	13.5	1241	ug/L	13.5	1.09%
Mg 285.213†	96236.4	16280	ug/L	262.0	16280	ug/L	262.0	1.61%
Mn 257.610†	1079367.7	3948	ug/L	2.2	3948	ug/L	2.2	0.06%
Mo 202.031†	14.7	-7.717	ug/L	4.0381	-7.717	ug/L	4.0381	52.33%
Na 589.592†	8494.0	1288	ug/L	22.8	1288	ug/L	22.8	1.77%
Ni 231.604†	115.4	4.701	ug/L	0.8302	4.701	ug/L	0.8302	17.66%
Pb 220.353†	-10.6	1.690	ug/L	1.8838	1.690	ug/L	1.8838	111.45%
Sb 206.836†	-0.6	3.843	ug/L	1.7662	3.843	ug/L	1.7662	45.95%
Se 196.026†	11.4	33.38	ug/L	38.376	33.38	ug/L	38.376	114.98%
SiO2 251.603†	88382.1	11830	ug/L	107.8	11830	ug/L	107.8	0.91%
Sr 421.552†	301741.6	596.4	ug/L	10.40	596.4	ug/L	10.40	1.74%
Ti 334.940†	-16.2	-0.043	ug/L	0.0381	-0.043	ug/L	0.0381	88.16%
Tl 190.801†	3.7	10.47	ug/L	5.894	10.47	ug/L	5.894	56.28%
V 290.880†	114.4	-0.740	ug/L	0.6928	-0.740	ug/L	0.6928	93.64%
Zn 206.200†	1459.9	516.7	ug/L	5.61	516.7	ug/L	5.61	1.09%

Sequence No.: 16
Sample ID: 1612038-MS2
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 33
Date Collected: 12/8/2016 8:32:59 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1612038-MS2

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: 1612038-MS2

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4141996.3	97.67	%	0.087				0.09%
Sc Radial	455669.5	99.37	%	0.362				0.36%
Ag 328.068†	11208.0	97.83	ug/L	0.884	97.83	ug/L	0.884	0.90%
Al 396.153†	71072.1	10390	ug/L	102.8	10390	ug/L	102.8	0.99%
As 193.696†	2.8	81.91	ug/L	7.582	81.91	ug/L	7.582	9.26%
Ba 233.527†	2266.1	103.9	ug/L	0.11	103.9	ug/L	0.11	0.11%
Be 313.107†	92047.5	101.4	ug/L	0.62	101.4	ug/L	0.62	0.62%
B 249.677†	-337.9	-19.85	ug/L	0.272	-19.85	ug/L	0.272	1.37%
Ca 317.933†	810711.8	210000	ug/L	787.4	210000	ug/L	787.4	0.37%
Cd 214.440†	719.9	97.15	ug/L	0.654	97.15	ug/L	0.654	0.67%
Co 228.616†	978.8	126.2	ug/L	0.65	126.2	ug/L	0.65	0.51%
Cr 267.716†	1138.6	96.74	ug/L	0.211	96.74	ug/L	0.211	0.22%
Cu 324.752†	24744.9	98.47	ug/L	0.775	98.47	ug/L	0.775	0.79%
Fe 238.204†	2287.4	17070	ug/L	20.4	17070	ug/L	20.4	0.12%
K 766.490†	23453.5	11790	ug/L	82.8	11790	ug/L	82.8	0.70%
Mg 285.213†	154823.3	26190	ug/L	226.3	26190	ug/L	226.3	0.86%
Mn 257.610†	1080742.0	3953	ug/L	14.3	3953	ug/L	14.3	0.36%
Mo 202.031†	128.6	87.27	ug/L	2.895	87.27	ug/L	2.895	3.32%
Na 589.592†	75090.5	11690	ug/L	164.4	11690	ug/L	164.4	1.41%
Ni 231.604†	693.1	98.24	ug/L	1.957	98.24	ug/L	1.957	1.99%
Pb 220.353†	82.2	99.29	ug/L	2.103	99.29	ug/L	2.103	2.12%
Sb 206.836†	49.7	103.8	ug/L	0.75	103.8	ug/L	0.75	0.72%
Se 196.026†	112.5	561.7	ug/L	39.32	561.7	ug/L	39.32	7.00%
SiO2 251.603†	87479.9	11710	ug/L	75.3	11710	ug/L	75.3	0.64%
Sr 421.552†	563200.6	1114	ug/L	11.0	1114	ug/L	11.0	0.99%
Ti 334.940†	-117.5	-0.312	ug/L	0.0179	-0.312	ug/L	0.0179	5.73%
Tl 190.801†	58.1	123.3	ug/L	6.29	123.3	ug/L	6.29	5.10%
V 290.880†	5076.1	93.79	ug/L	1.040	93.79	ug/L	1.040	1.11%
Zn 206.200†	1705.3	604.8	ug/L	3.89	604.8	ug/L	3.89	0.64%

Matrix Recovery Check: 1612038-MS2

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al 396.153	10210	10390	102.796	ug/L	101.9
Ca 317.933	211200	210000	787.389	ug/L	88.5
Fe 238.204	17370	17070	20.416	ug/L	97.0
K 766.490	11340	11790	82.783	ug/L	104.5
Mg 285.213	26380	26190	226.290	ug/L	98.1
Na 589.592	11390	11690	164.414	ug/L	103.0
Sr 421.552	1096	1114	11.007	ug/L	103.5
Ag 328.068	100.6	97.83	0.884	ug/L	97.2
As 193.696	75.83	81.91	7.582	ug/L	106.1
Ba 233.527	107.2	103.9	0.110	ug/L	96.6
Be 313.107	100.3	101.4	0.625	ug/L	101.1
Cd 214.440	99.55	97.15	0.654	ug/L	97.6
Co 228.616	129.0	126.2	0.646	ug/L	97.2
Cr 267.716	100.6	96.74	0.211	ug/L	96.1
Cu 324.752	101.4	98.47	0.775	ug/L	97.1
Mn 257.610	4048	3953	14.321	ug/L	5.1
Mo 202.031	92.28	87.27	2.895	ug/L	95.0
Ni 231.604	104.7	98.24	1.957	ug/L	93.5
Pb 220.353	101.7	99.29	2.103	ug/L	97.6
Sb 206.836	103.8	103.8	0.746	ug/L	100.0
Se 196.026	533.4	561.7	39.318	ug/L	105.7
SiO2 251.603	16830	11710	75.350	ug/L	-2.4

Tl 190.801	110.5	123.3	6.291	ug/L	112.8
V 290.880	99.26	93.79	1.040	ug/L	94.5
Zn 206.200	616.7	604.8	3.886	ug/L	88.1

Sequence No.: 17
Sample ID: C161021-09
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 34
Date Collected: 12/8/2016 8:37:06 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-09

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: C161021-09

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4187212.2	98.74	%	0.130				0.13%
Sc Radial	458040.2	99.89	%	0.534				0.53%
Ag 328.068†	0.9	0.3780	ug/L	0.17984	0.3780	ug/L	0.17984	47.58%
Al 396.153†	3129.6	424.3	ug/L	4.44	424.3	ug/L	4.44	1.05%
As 193.696†	-17.6	-38.91	ug/L	15.862	-38.91	ug/L	15.862	40.76%
Ba 233.527†	234.9	10.80	ug/L	0.267	10.80	ug/L	0.267	2.47%
Be 313.107†	1511.6	1.347	ug/L	0.0714	1.347	ug/L	0.0714	5.30%
B 249.677†	-283.3	-16.64	ug/L	0.386	-16.64	ug/L	0.386	2.32%
Ca 317.933†	667176.2	172800	ug/L	1541.3	172800	ug/L	1541.3	0.89%
Cd 214.440†	-7.2	-0.3862	ug/L	0.25837	-0.3862	ug/L	0.25837	66.90%
Co 228.616†	202.5	26.47	ug/L	0.343	26.47	ug/L	0.343	1.30%
Cr 267.716†	-8.9	-0.1659	ug/L	0.20178	-0.1659	ug/L	0.20178	121.66%
Cu 324.752†	984.3	5.774	ug/L	0.1964	5.774	ug/L	0.1964	3.40%
Fe 238.204†	2412.1	17990	ug/L	38.9	17990	ug/L	38.9	0.22%
K 766.490†	2873.4	1324	ug/L	4.4	1324	ug/L	4.4	0.33%
Mg 285.213†	84765.8	14340	ug/L	81.8	14340	ug/L	81.8	0.57%
Mn 257.610†	944066.2	3453	ug/L	10.4	3453	ug/L	10.4	0.30%
Mo 202.031†	11.4	-6.352	ug/L	5.6305	-6.352	ug/L	5.6305	88.64%
Na 589.592†	9483.8	1445	ug/L	13.8	1445	ug/L	13.8	0.96%
Ni 231.604†	91.7	2.041	ug/L	0.8396	2.041	ug/L	0.8396	41.13%
Pb 220.353†	-9.7	2.540	ug/L	2.4897	2.540	ug/L	2.4897	98.03%
Sb 206.836†	-3.2	-3.873	ug/L	4.5916	-3.873	ug/L	4.5916	118.56%
Se 196.026†	5.0	7.843	ug/L	18.2540	7.843	ug/L	18.2540	232.73%
SiO2 251.603†	116167.1	15550	ug/L	84.5	15550	ug/L	84.5	0.54%
Sr 421.552†	417062.9	824.3	ug/L	8.19	824.3	ug/L	8.19	0.99%
Ti 334.940†	-33.4	-0.089	ug/L	0.0471	-0.089	ug/L	0.0471	53.14%
Tl 190.801†	6.3	15.56	ug/L	3.952	15.56	ug/L	3.952	25.40%
V 290.880†	156.3	-0.160	ug/L	0.5767	-0.160	ug/L	0.5767	359.54%
Zn 206.200†	1306.4	462.4	ug/L	2.70	462.4	ug/L	2.70	0.58%

Sequence No.: 18
Sample ID: Blank
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 35
Date Collected: 12/8/2016 8:40:13 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Blank

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: Blank

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4309324.5	101.6	%	0.05				0.05%
Sc Radial	449655.5	98.06	%	0.829				0.85%
Ag 328.068†	9.8	0.0876	ug/L	0.20177	0.0876	ug/L	0.20177	230.32%
Al 396.153†	0.6	0.1083	ug/L	2.79190	0.1083	ug/L	2.79190	>999.9%
As 193.696†	-1.2	-5.402	ug/L	6.5117	-5.402	ug/L	6.5117	120.54%
Ba 233.527†	-0.8	-0.0371	ug/L	0.08371	-0.0371	ug/L	0.08371	225.45%
Be 313.107†	71.0	0.0783	ug/L	0.09040	0.0783	ug/L	0.09040	115.40%
B 249.677†	95.3	5.594	ug/L	0.1441	5.594	ug/L	0.1441	2.58%
Ca 317.933†	122.5	31.73	ug/L	3.000	31.73	ug/L	3.000	9.46%
Cd 214.440†	-1.3	-0.1749	ug/L	0.02890	-0.1749	ug/L	0.02890	16.52%
Co 228.616†	-4.6	-0.5860	ug/L	0.46819	-0.5860	ug/L	0.46819	79.89%
Cr 267.716†	-0.7	-0.0502	ug/L	0.41371	-0.0502	ug/L	0.41371	824.63%
Cu 324.752†	-9.6	-0.0338	ug/L	0.55303	-0.0338	ug/L	0.55303	>999.9%
Fe 238.204†	5.8	43.11	ug/L	8.262	43.11	ug/L	8.262	19.17%
K 766.490†	66.1	33.79	ug/L	17.460	33.79	ug/L	17.460	51.67%
Mg 285.213†	19.9	3.394	ug/L	0.1916	3.394	ug/L	0.1916	5.65%
Mn 257.610†	104.4	0.3818	ug/L	0.00385	0.3818	ug/L	0.00385	1.01%
Mo 202.031†	-0.0	-0.0205	ug/L	1.81992	-0.0205	ug/L	1.81992	>999.9%
Na 589.592†	29.3	4.571	ug/L	3.2473	4.571	ug/L	3.2473	71.04%
Ni 231.604†	-6.2	-1.049	ug/L	0.9475	-1.049	ug/L	0.9475	90.31%
Pb 220.353†	4.6	4.642	ug/L	4.3242	4.642	ug/L	4.3242	93.15%
Sb 206.836†	-0.5	-1.050	ug/L	1.6127	-1.050	ug/L	1.6127	153.55%
Se 196.026†	-0.4	-2.052	ug/L	9.2366	-2.052	ug/L	9.2366	450.08%
SiO2 251.603†	4.5	0.6173	ug/L	1.22473	0.6173	ug/L	1.22473	198.39%
Sr 421.552†	124.4	0.244	ug/L	0.1416	0.244	ug/L	0.1416	58.12%
Ti 334.940†	-1.4	-0.004	ug/L	0.0144	-0.004	ug/L	0.0144	392.66%
Tl 190.801†	4.7	9.568	ug/L	5.2514	9.568	ug/L	5.2514	54.88%
V 290.880†	36.0	0.684	ug/L	0.3600	0.684	ug/L	0.3600	52.64%
Zn 206.200†	-0.8	-0.281	ug/L	1.1536	-0.281	ug/L	1.1536	409.84%

Sequence No.: 19
Sample ID: SEQ-CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/8/2016 8:43:17 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCV

Analyte	Back Pressure	Flow
All	232.0 kPa	0.80 L/min

Mean Data: SEQ-CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4311658.6	101.7	%	0.41				0.40%
Sc Radial	457520.7	99.78	%	0.993				1.00%
Ag 328.068†	28661.0	249.3	ug/L	0.82	249.3	ug/L	0.82	0.33%
QC value within limits for Ag 328.068 Recovery = 99.73%								
Al 396.153†	85888.1	12620	ug/L	143.7	12620	ug/L	143.7	1.14%
QC value within limits for Al 396.153 Recovery = 100.98%								
As 193.696†	560.0	2544	ug/L	24.2	2544	ug/L	24.2	0.95%
QC value within limits for As 193.696 Recovery = 101.76%								
Ba 233.527†	11032.9	506.0	ug/L	4.24	506.0	ug/L	4.24	0.84%
QC value within limits for Ba 233.527 Recovery = 101.20%								
Be 313.107†	456025.0	505.4	ug/L	0.23	505.4	ug/L	0.23	0.05%
QC value within limits for Be 313.107 Recovery = 101.09%								
B 249.677†	84415.0	4958	ug/L	31.3	4958	ug/L	31.3	0.63%
QC value within limits for B 249.677 Recovery = 99.16%								
Ca 317.933†	48999.0	12710	ug/L	128.6	12710	ug/L	128.6	1.01%
QC value within limits for Ca 317.933 Recovery = 101.64%								
Cd 214.440†	3753.7	503.4	ug/L	2.97	503.4	ug/L	2.97	0.59%
QC value within limits for Cd 214.440 Recovery = 100.68%								
Co 228.616†	3923.4	501.3	ug/L	3.12	501.3	ug/L	3.12	0.62%
QC value within limits for Co 228.616 Recovery = 100.25%								
Cr 267.716†	30138.6	2528	ug/L	16.4	2528	ug/L	16.4	0.65%
QC value within limits for Cr 267.716 Recovery = 101.14%								
Cu 324.752†	252292.0	988.8	ug/L	3.30	988.8	ug/L	3.30	0.33%
QC value within limits for Cu 324.752 Recovery = 98.88%								
Fe 238.204†	1696.2	12690	ug/L	57.1	12690	ug/L	57.1	0.45%
QC value within limits for Fe 238.204 Recovery = 101.54%								
K 766.490†	49091.8	25060	ug/L	187.2	25060	ug/L	187.2	0.75%
QC value within limits for K 766.490 Recovery = 100.24%								
Mg 285.213†	74715.5	12640	ug/L	139.4	12640	ug/L	139.4	1.10%
QC value within limits for Mg 285.213 Recovery = 101.15%								
Mn 257.610†	276838.8	1013	ug/L	5.2	1013	ug/L	5.2	0.51%
QC value within limits for Mn 257.610 Recovery = 101.26%								
Mo 202.031†	590.3	495.6	ug/L	3.33	495.6	ug/L	3.33	0.67%
QC value within limits for Mo 202.031 Recovery = 99.11%								
Na 589.592†	80426.2	12530	ug/L	144.1	12530	ug/L	144.1	1.15%
QC value within limits for Na 589.592 Recovery = 100.27%								
Ni 231.604†	14978.8	2507	ug/L	13.9	2507	ug/L	13.9	0.55%
QC value within limits for Ni 231.604 Recovery = 100.29%								
Pb 220.353†	2527.0	2533	ug/L	20.4	2533	ug/L	20.4	0.81%
QC value within limits for Pb 220.353 Recovery = 101.33%								
Sb 206.836†	1217.2	2446	ug/L	26.0	2446	ug/L	26.0	1.06%
QC value within limits for Sb 206.836 Recovery = 97.86%								
Se 196.026†	491.1	2570	ug/L	32.5	2570	ug/L	32.5	1.27%
QC value within limits for Se 196.026 Recovery = 102.81%								
SiO2 251.603†	74471.1	9982	ug/L	124.5	9982	ug/L	124.5	1.25%
QC value within limits for SiO2 251.603 Recovery = 99.82%								
Sr 421.552†	254216.1	502.6	ug/L	5.22	502.6	ug/L	5.22	1.04%
QC value within limits for Sr 421.552 Recovery = 100.52%								
Ti 334.940†	187979.2	499.7	ug/L	2.82	499.7	ug/L	2.82	0.56%
QC value within limits for Ti 334.940 Recovery = 99.95%								
Tl 190.801†	1234.6	2536	ug/L	32.1	2536	ug/L	32.1	1.27%
QC value within limits for Tl 190.801 Recovery = 101.43%								
V 290.880†	52422.0	1007	ug/L	6.1	1007	ug/L	6.1	0.60%
QC value within limits for V 290.880 Recovery = 100.68%								
Zn 206.200†	7086.7	2539	ug/L	20.7	2539	ug/L	20.7	0.81%
QC value within limits for Zn 206.200 Recovery = 101.56%								

All analyte(s) passed QC.

Sequence No.: 20
Sample ID: SEQ-CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/8/2016 8:46:21 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCB

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: SEQ-CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4338402.8	102.3	%	0.63				0.61%
Sc Radial	462102.2	100.8	%	2.69				2.67%
Ag 328.068†	15.2	0.1346	ug/L	0.03536	0.1346	ug/L	0.03536	26.27%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	7.2	1.105	ug/L	0.8855	1.105	ug/L	0.8855	80.17%
QC value within limits for Al 396.153 Recovery = Not calculated								
As 193.696†	-1.7	-7.528	ug/L	7.0559	-7.528	ug/L	7.0559	93.73%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	3.4	0.1547	ug/L	0.05585	0.1547	ug/L	0.05585	36.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	164.5	0.1816	ug/L	0.03295	0.1816	ug/L	0.03295	18.14%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	501.2	29.44	ug/L	1.827	29.44	ug/L	1.827	6.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	15.5	4.004	ug/L	1.4503	4.004	ug/L	1.4503	36.22%
QC value within limits for Ca 317.933 Recovery = Not calculated								
Cd 214.440†	1.1	0.1439	ug/L	0.22414	0.1439	ug/L	0.22414	155.77%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-5.1	-0.6507	ug/L	0.78352	-0.6507	ug/L	0.78352	120.41%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	5.9	0.4966	ug/L	0.15429	0.4966	ug/L	0.15429	31.07%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-37.4	-0.1449	ug/L	0.33373	-0.1449	ug/L	0.33373	230.33%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	3.0	22.20	ug/L	13.435	22.20	ug/L	13.435	60.52%
QC value within limits for Fe 238.204 Recovery = Not calculated								
K 766.490†	110.4	56.46	ug/L	11.403	56.46	ug/L	11.403	20.20%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	17.8	3.021	ug/L	0.6733	3.021	ug/L	0.6733	22.29%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	35.0	0.1281	ug/L	0.01175	0.1281	ug/L	0.01175	9.17%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-0.7	-0.5717	ug/L	0.34253	-0.5717	ug/L	0.34253	59.92%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	35.6	5.563	ug/L	2.2070	5.563	ug/L	2.2070	39.68%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-1.1	-0.1911	ug/L	1.12543	-0.1911	ug/L	1.12543	589.03%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	4.7	4.659	ug/L	2.1045	4.659	ug/L	2.1045	45.17%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-0.3	-0.7153	ug/L	2.31744	-0.7153	ug/L	2.31744	324.00%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-1.8	-9.158	ug/L	11.7537	-9.158	ug/L	11.7537	128.35%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	-40.1	-5.355	ug/L	0.2939	-5.355	ug/L	0.2939	5.49%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	35.5	0.069	ug/L	0.0424	0.069	ug/L	0.0424	61.48%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	45.0	0.120	ug/L	0.0175	0.120	ug/L	0.0175	14.58%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	3.7	7.550	ug/L	2.8789	7.550	ug/L	2.8789	38.13%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	1.3	0.020	ug/L	0.7327	0.020	ug/L	0.7327	>999.9%
QC value within limits for V 290.880 Recovery = Not calculated								
Zn 206.200†	3.7	1.310	ug/L	0.5903	1.310	ug/L	0.5903	45.05%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 21
Sample ID: C161021-12
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 36
Date Collected: 12/8/2016 8:49:24 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-12

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: C161021-12

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4218318.0	99.47	%	0.142				0.14%
Sc Radial	457649.0	99.81	%	0.231				0.23%
Ag 328.068†	9.4	0.6139	ug/L	0.03517	0.6139	ug/L	0.03517	5.73%
Al 396.153†	53227.0	7782	ug/L	62.8	7782	ug/L	62.8	0.81%
As 193.696†	-12.7	-4.810	ug/L	9.5570	-4.810	ug/L	9.5570	198.70%
Ba 233.527†	45.5	2.128	ug/L	0.0321	2.128	ug/L	0.0321	1.51%
Be 313.107†	1591.6	1.439	ug/L	0.0665	1.439	ug/L	0.0665	4.62%
B 249.677†	-97.2	-5.709	ug/L	0.9459	-5.709	ug/L	0.9459	16.57%
Ca 317.933†	654212.7	169500	ug/L	1423.7	169500	ug/L	1423.7	0.84%
Cd 214.440†	40.3	6.012	ug/L	0.7390	6.012	ug/L	0.7390	12.29%
Co 228.616†	344.0	44.19	ug/L	0.668	44.19	ug/L	0.668	1.51%
Cr 267.716†	3.8	0.9246	ug/L	0.29804	0.9246	ug/L	0.29804	32.24%
Cu 324.752†	101065.3	397.0	ug/L	0.51	397.0	ug/L	0.51	0.13%
Fe 238.204†	3317.4	24730	ug/L	82.1	24730	ug/L	82.1	0.33%
K 766.490†	3548.3	1670	ug/L	7.0	1670	ug/L	7.0	0.42%
Mg 285.213†	109906.1	18600	ug/L	155.3	18600	ug/L	155.3	0.83%
Mn 257.610†	1055213.3	3859	ug/L	4.6	3859	ug/L	4.6	0.12%
Mo 202.031†	11.7	-6.068	ug/L	1.3359	-6.068	ug/L	1.3359	22.02%
Na 589.592†	7605.7	1155	ug/L	9.2	1155	ug/L	9.2	0.79%
Ni 231.604†	184.6	17.69	ug/L	1.116	17.69	ug/L	1.116	6.31%
Pb 220.353†	-13.0	1.530	ug/L	6.4210	1.530	ug/L	6.4210	419.63%
Sb 206.836†	0.9	0.1509	ug/L	1.03522	0.1509	ug/L	1.03522	686.05%
Se 196.026†	9.0	33.98	ug/L	2.157	33.98	ug/L	2.157	6.35%
SiO2 251.603†	119513.4	16000	ug/L	44.1	16000	ug/L	44.1	0.28%
Sr 421.552†	248732.2	490.5	ug/L	4.38	490.5	ug/L	4.38	0.89%
Ti 334.940†	6.0	0.016	ug/L	0.0372	0.016	ug/L	0.0372	233.73%
Tl 190.801†	6.5	14.37	ug/L	5.516	14.37	ug/L	5.516	38.38%
V 290.880†	215.3	0.737	ug/L	0.5431	0.737	ug/L	0.5431	73.71%
Zn 206.200†	2909.6	1033	ug/L	5.0	1033	ug/L	5.0	0.49%

Sequence No.: 22
Sample ID: C161021-15
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 12/8/2016 8:52:30 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-15

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: C161021-15

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4146136.8	97.77	%	0.613				0.63%
Sc Radial	458858.0	100.1	%	0.69				0.69%
Ag 328.068†	0.8	0.3032	ug/L	0.14000	0.3032	ug/L	0.14000	46.17%
Al 396.153†	840.1	81.51	ug/L	1.969	81.51	ug/L	1.969	2.42%
As 193.696†	-11.1	-14.41	ug/L	20.398	-14.41	ug/L	20.398	141.55%
Ba 233.527†	326.5	14.93	ug/L	0.279	14.93	ug/L	0.279	1.87%
Be 313.107†	167.1	-0.1668	ug/L	0.01704	-0.1668	ug/L	0.01704	10.22%
B 249.677†	-167.9	-9.864	ug/L	0.4162	-9.864	ug/L	0.4162	4.22%
Ca 317.933†	701004.2	181600	ug/L	2640.1	181600	ug/L	2640.1	1.45%
Cd 214.440†	-4.6	-0.2128	ug/L	0.42539	-0.2128	ug/L	0.42539	199.95%
Co 228.616†	77.5	10.93	ug/L	0.571	10.93	ug/L	0.571	5.22%
Cr 267.716†	-3.4	0.2596	ug/L	0.27728	0.2596	ug/L	0.27728	106.80%
Cu 324.752†	237.4	1.561	ug/L	0.0312	1.561	ug/L	0.0312	2.00%
Fe 238.204†	837.5	6257	ug/L	72.6	6257	ug/L	72.6	1.16%
K 766.490†	2860.0	1311	ug/L	28.0	1311	ug/L	28.0	2.14%
Mg 285.213†	66553.2	11260	ug/L	155.4	11260	ug/L	155.4	1.38%
Mn 257.610†	591861.5	2165	ug/L	16.3	2165	ug/L	16.3	0.75%
Mo 202.031†	15.1	-4.882	ug/L	2.7801	-4.882	ug/L	2.7801	56.95%
Na 589.592†	7337.6	1109	ug/L	19.9	1109	ug/L	19.9	1.80%
Ni 231.604†	64.8	-2.141	ug/L	1.0972	-2.141	ug/L	1.0972	51.24%
Pb 220.353†	-7.8	3.209	ug/L	4.6122	3.209	ug/L	4.6122	143.74%
Sb 206.836†	-0.6	4.681	ug/L	5.2626	4.681	ug/L	5.2626	112.42%
Se 196.026†	9.3	23.85	ug/L	30.810	23.85	ug/L	30.810	129.17%
SiO2 251.603†	61869.7	8284	ug/L	30.5	8284	ug/L	30.5	0.37%
Sr 421.552†	382049.2	755.6	ug/L	9.81	755.6	ug/L	9.81	1.30%
Ti 334.940†	-27.2	-0.072	ug/L	0.0360	-0.072	ug/L	0.0360	49.89%
Tl 190.801†	4.7	14.09	ug/L	11.277	14.09	ug/L	11.277	80.06%
V 290.880†	168.4	0.541	ug/L	0.5943	0.541	ug/L	0.5943	109.86%
Zn 206.200†	1294.8	458.2	ug/L	1.43	458.2	ug/L	1.43	0.31%

Sequence No.: 23
Sample ID: C161021-18
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 38
Date Collected: 12/8/2016 8:55:37 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-18

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: C161021-18

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4347144.9	102.5	%	0.59				0.58%
Sc Radial	460461.2	100.4	%	0.68				0.68%
Ag 328.068†	8.4	0.0816	ug/L	0.14125	0.0816	ug/L	0.14125	173.17%
Al 396.153†	144.2	20.20	ug/L	3.335	20.20	ug/L	3.335	16.51%
As 193.696†	-4.1	-16.90	ug/L	8.597	-16.90	ug/L	8.597	50.86%
Ba 233.527†	181.4	8.306	ug/L	0.0701	8.306	ug/L	0.0701	0.84%
Be 313.107†	122.2	0.1256	ug/L	0.02805	0.1256	ug/L	0.02805	22.34%
B 249.677†	152.2	8.941	ug/L	0.1744	8.941	ug/L	0.1744	1.95%
Ca 317.933†	20819.1	5394	ug/L	25.1	5394	ug/L	25.1	0.47%
Cd 214.440†	-1.0	-0.0793	ug/L	0.34407	-0.0793	ug/L	0.34407	434.11%
Co 228.616†	-0.7	-0.0315	ug/L	0.37891	-0.0315	ug/L	0.37891	>999.9%
Cr 267.716†	0.3	0.0362	ug/L	0.23392	0.0362	ug/L	0.23392	646.24%
Cu 324.752†	21.0	0.1304	ug/L	0.10372	0.1304	ug/L	0.10372	79.55%
Fe 238.204†	12.8	95.41	ug/L	14.713	95.41	ug/L	14.713	15.42%
K 766.490†	124.7	59.78	ug/L	17.662	59.78	ug/L	17.662	29.55%
Mg 285.213†	2780.1	470.3	ug/L	3.91	470.3	ug/L	3.91	0.83%
Mn 257.610†	1520.7	5.573	ug/L	0.0700	5.573	ug/L	0.0700	1.26%
Mo 202.031†	1.4	0.4813	ug/L	1.05690	0.4813	ug/L	1.05690	219.58%
Na 589.592†	3267.8	509.6	ug/L	9.69	509.6	ug/L	9.69	1.90%
Ni 231.604†	-8.8	-1.967	ug/L	0.7801	-1.967	ug/L	0.7801	39.65%
Pb 220.353†	2.8	3.162	ug/L	1.1949	3.162	ug/L	1.1949	37.79%
Sb 206.836†	0.0	-0.0544	ug/L	0.67098	-0.0544	ug/L	0.67098	>999.9%
Se 196.026†	-1.0	-6.003	ug/L	34.5358	-6.003	ug/L	34.5358	575.34%
SiO2 251.603†	17317.3	2318	ug/L	23.8	2318	ug/L	23.8	1.02%
Sr 421.552†	14143.8	27.99	ug/L	0.258	27.99	ug/L	0.258	0.92%
Ti 334.940†	78.5	0.209	ug/L	0.0196	0.209	ug/L	0.0196	9.41%
Tl 190.801†	4.7	9.814	ug/L	6.9627	9.814	ug/L	6.9627	70.94%
V 290.880†	-33.5	-0.681	ug/L	0.8057	-0.681	ug/L	0.8057	118.26%
Zn 206.200†	12.1	4.257	ug/L	1.4053	4.257	ug/L	1.4053	33.01%

Sequence No.: 24
Sample ID: C161021-21
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 12/8/2016 8:58:40 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-21

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: C161021-21

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4381989.8	103.3	%	0.69				0.67%
Sc Radial	463566.1	101.1	%	1.52				1.51%
Ag 328.068†	14.9	0.1534	ug/L	0.05599	0.1534	ug/L	0.05599	36.49%
Al 396.153†	127.3	16.06	ug/L	4.173	16.06	ug/L	4.173	25.99%
As 193.696†	-5.1	-19.13	ug/L	6.245	-19.13	ug/L	6.245	32.64%
Ba 233.527†	748.6	34.29	ug/L	0.171	34.29	ug/L	0.171	0.50%
Be 313.107†	129.0	0.1151	ug/L	0.06265	0.1151	ug/L	0.06265	54.44%
B 249.677†	72.1	4.237	ug/L	0.0803	4.237	ug/L	0.0803	1.90%
Ca 317.933†	63670.6	16500	ug/L	323.9	16500	ug/L	323.9	1.96%
Cd 214.440†	-2.9	-0.2782	ug/L	0.29883	-0.2782	ug/L	0.29883	107.42%
Co 228.616†	-2.4	-0.1405	ug/L	0.57151	-0.1405	ug/L	0.57151	406.74%
Cr 267.716†	0.8	0.1399	ug/L	0.07705	0.1399	ug/L	0.07705	55.06%
Cu 324.752†	17.7	0.1675	ug/L	0.14326	0.1675	ug/L	0.14326	85.51%
Fe 238.204†	6.1	47.30	ug/L	13.280	47.30	ug/L	13.280	28.08%
K 766.490†	495.5	240.1	ug/L	11.97	240.1	ug/L	11.97	4.99%
Mg 285.213†	4352.5	736.4	ug/L	9.77	736.4	ug/L	9.77	1.33%
Mn 257.610†	132.4	0.5346	ug/L	0.02139	0.5346	ug/L	0.02139	4.00%
Mo 202.031†	1.2	-0.6445	ug/L	2.30235	-0.6445	ug/L	2.30235	357.24%
Na 589.592†	5320.0	827.0	ug/L	10.65	827.0	ug/L	10.65	1.29%
Ni 231.604†	-2.0	-1.791	ug/L	0.5520	-1.791	ug/L	0.5520	30.82%
Pb 220.353†	4.5	5.405	ug/L	1.9241	5.405	ug/L	1.9241	35.60%
Sb 206.836†	-1.1	-1.774	ug/L	1.6214	-1.774	ug/L	1.6214	91.43%
Se 196.026†	4.2	18.61	ug/L	10.804	18.61	ug/L	10.804	58.05%
SiO2 251.603†	28155.2	3769	ug/L	23.4	3769	ug/L	23.4	0.62%
Sr 421.552†	86157.8	170.6	ug/L	1.82	170.6	ug/L	1.82	1.07%
Ti 334.940†	5.6	0.015	ug/L	0.0192	0.015	ug/L	0.0192	128.95%
Tl 190.801†	4.8	10.66	ug/L	4.629	10.66	ug/L	4.629	43.44%
V 290.880†	24.2	0.269	ug/L	1.0473	0.269	ug/L	1.0473	388.61%
Zn 206.200†	9.4	3.145	ug/L	1.0592	3.145	ug/L	1.0592	33.68%

Sequence No.: 25
Sample ID: C161021-24
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 12/8/2016 9:01:43 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-24

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: C161021-24

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4310981.8	101.7	%	0.19				0.18%
Sc Radial	452839.7	98.76	%	0.596				0.60%
Ag 328.068†	11.7	0.1460	ug/L	0.10658	0.1460	ug/L	0.10658	72.98%
Al 396.153†	103.0	10.88	ug/L	8.374	10.88	ug/L	8.374	76.99%
As 193.696†	-4.3	-14.53	ug/L	4.267	-14.53	ug/L	4.267	29.36%
Ba 233.527†	778.9	35.68	ug/L	0.252	35.68	ug/L	0.252	0.71%
Be 313.107†	130.9	0.1045	ug/L	0.00459	0.1045	ug/L	0.00459	4.39%
B 249.677†	21.7	1.274	ug/L	0.2731	1.274	ug/L	0.2731	21.44%
Ca 317.933†	90146.5	23350	ug/L	269.8	23350	ug/L	269.8	1.16%
Cd 214.440†	-1.5	-0.0881	ug/L	0.11436	-0.0881	ug/L	0.11436	129.82%
Co 228.616†	-2.3	-0.0756	ug/L	0.15017	-0.0756	ug/L	0.15017	198.72%
Cr 267.716†	0.6	0.1464	ug/L	0.26743	0.1464	ug/L	0.26743	182.61%
Cu 324.752†	-18.3	0.0152	ug/L	0.20288	0.0152	ug/L	0.20288	>999.9%
Fe 238.204†	0.5	6.446	ug/L	25.2585	6.446	ug/L	25.2585	391.85%
K 766.490†	521.8	247.6	ug/L	5.83	247.6	ug/L	5.83	2.36%
Mg 285.213†	5085.4	860.4	ug/L	8.99	860.4	ug/L	8.99	1.04%
Mn 257.610†	0.1	0.0655	ug/L	0.02744	0.0655	ug/L	0.02744	41.90%
Mo 202.031†	5.0	2.016	ug/L	0.9533	2.016	ug/L	0.9533	47.28%
Na 589.592†	6190.7	961.3	ug/L	11.16	961.3	ug/L	11.16	1.16%
Ni 231.604†	4.9	-1.094	ug/L	0.2643	-1.094	ug/L	0.2643	24.16%
Pb 220.353†	-0.8	0.5520	ug/L	3.66579	0.5520	ug/L	3.66579	664.04%
Sb 206.836†	-4.0	-7.065	ug/L	3.2702	-7.065	ug/L	3.2702	46.29%
Se 196.026†	4.8	20.67	ug/L	25.954	20.67	ug/L	25.954	125.59%
SiO2 251.603†	23682.1	3170	ug/L	22.2	3170	ug/L	22.2	0.70%
Sr 421.552†	115587.7	228.9	ug/L	2.91	228.9	ug/L	2.91	1.27%
Ti 334.940†	-39.4	-0.105	ug/L	0.0065	-0.105	ug/L	0.0065	6.22%
Tl 190.801†	2.4	5.954	ug/L	2.7905	5.954	ug/L	2.7905	46.87%
V 290.880†	17.6	0.046	ug/L	0.5319	0.046	ug/L	0.5319	>999.9%
Zn 206.200†	6.9	2.151	ug/L	0.6077	2.151	ug/L	0.6077	28.26%

Sequence No.: 26
Sample ID: C161021-27
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 12/8/2016 9:04:46 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-27

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: C161021-27

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4345525.2	102.5	%	0.78				0.76%
Sc Radial	452593.1	98.70	%	0.508				0.51%
Ag 328.068†	22.1	0.2371	ug/L	0.09363	0.2371	ug/L	0.09363	39.49%
Al 396.153†	92.5	9.199	ug/L	3.1955	9.199	ug/L	3.1955	34.74%
As 193.696†	-4.7	-15.93	ug/L	9.581	-15.93	ug/L	9.581	60.13%
Ba 233.527†	773.1	35.41	ug/L	0.435	35.41	ug/L	0.435	1.23%
Be 313.107†	97.3	0.0671	ug/L	0.05407	0.0671	ug/L	0.05407	80.56%
B 249.677†	16.6	0.9773	ug/L	0.40537	0.9773	ug/L	0.40537	41.48%
Ca 317.933†	90625.8	23480	ug/L	290.8	23480	ug/L	290.8	1.24%
Cd 214.440†	-0.3	0.0699	ug/L	0.46176	0.0699	ug/L	0.46176	660.83%
Co 228.616†	0.0	0.2318	ug/L	0.24935	0.2318	ug/L	0.24935	107.56%
Cr 267.716†	2.3	0.2817	ug/L	0.13936	0.2817	ug/L	0.13936	49.48%
Cu 324.752†	-36.8	-0.0592	ug/L	0.23306	-0.0592	ug/L	0.23306	393.81%
Fe 238.204†	0.8	8.619	ug/L	16.8639	8.619	ug/L	16.8639	195.67%
K 766.490†	556.8	265.4	ug/L	33.35	265.4	ug/L	33.35	12.57%
Mg 285.213†	5052.5	854.8	ug/L	3.19	854.8	ug/L	3.19	0.37%
Mn 257.610†	-0.7	0.0619	ug/L	0.01432	0.0619	ug/L	0.01432	23.13%
Mo 202.031†	7.6	4.183	ug/L	1.8370	4.183	ug/L	1.8370	43.92%
Na 589.592†	6138.9	953.2	ug/L	14.17	953.2	ug/L	14.17	1.49%
Ni 231.604†	-1.1	-2.108	ug/L	1.1895	-2.108	ug/L	1.1895	56.42%
Pb 220.353†	1.3	2.643	ug/L	1.2687	2.643	ug/L	1.2687	48.00%
Sb 206.836†	-2.0	-2.966	ug/L	3.0204	-2.966	ug/L	3.0204	101.84%
Se 196.026†	2.9	10.72	ug/L	3.564	10.72	ug/L	3.564	33.26%
SiO2 251.603†	23602.9	3160	ug/L	14.2	3160	ug/L	14.2	0.45%
Sr 421.552†	115270.5	228.2	ug/L	2.57	228.2	ug/L	2.57	1.12%
Ti 334.940†	-29.8	-0.079	ug/L	0.0261	-0.079	ug/L	0.0261	33.02%
Tl 190.801†	-0.8	-0.560	ug/L	5.0374	-0.560	ug/L	5.0374	899.02%
V 290.880†	16.3	0.029	ug/L	1.2897	0.029	ug/L	1.2897	>999.9%
Zn 206.200†	6.0	1.832	ug/L	0.6000	1.832	ug/L	0.6000	32.75%

Sequence No.: 27
Sample ID: C161021-30
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 12/8/2016 9:07:50 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-30

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: C161021-30

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4250363.4	100.2	%	0.65				0.65%
Sc Radial	459338.1	100.2	%	0.20				0.20%
Ag 328.068†	-2.8	0.0405	ug/L	0.07838	0.0405	ug/L	0.07838	193.66%
Al 396.153†	143.8	15.03	ug/L	7.641	15.03	ug/L	7.641	50.84%
As 193.696†	-4.3	-14.35	ug/L	15.863	-14.35	ug/L	15.863	110.55%
Ba 233.527†	322.2	14.75	ug/L	0.046	14.75	ug/L	0.046	0.31%
Be 313.107†	5.8	-0.0450	ug/L	0.03979	-0.0450	ug/L	0.03979	88.38%
B 249.677†	-8.2	-0.4812	ug/L	0.31769	-0.4812	ug/L	0.31769	66.02%
Ca 317.933†	103680.1	26860	ug/L	315.6	26860	ug/L	315.6	1.17%
Cd 214.440†	-3.5	-0.3658	ug/L	0.26535	-0.3658	ug/L	0.26535	72.54%
Co 228.616†	2.3	0.5067	ug/L	0.31118	0.5067	ug/L	0.31118	61.42%
Cr 267.716†	-5.8	-0.3867	ug/L	0.35742	-0.3867	ug/L	0.35742	92.42%
Cu 324.752†	226.2	0.9338	ug/L	0.07856	0.9338	ug/L	0.07856	8.41%
Fe 238.204†	3.1	25.54	ug/L	3.512	25.54	ug/L	3.512	13.75%
K 766.490†	665.4	318.7	ug/L	3.73	318.7	ug/L	3.73	1.17%
Mg 285.213†	8496.3	1437	ug/L	14.0	1437	ug/L	14.0	0.97%
Mn 257.610†	117.0	0.4894	ug/L	0.04221	0.4894	ug/L	0.04221	8.63%
Mo 202.031†	4.9	1.352	ug/L	1.9254	1.352	ug/L	1.9254	142.43%
Na 589.592†	2893.8	446.5	ug/L	8.90	446.5	ug/L	8.90	1.99%
Ni 231.604†	6.7	-0.8532	ug/L	0.42464	-0.8532	ug/L	0.42464	49.77%
Pb 220.353†	-0.3	1.157	ug/L	1.9545	1.157	ug/L	1.9545	168.91%
Sb 206.836†	-4.0	-7.392	ug/L	2.4626	-7.392	ug/L	2.4626	33.31%
Se 196.026†	3.4	12.94	ug/L	18.404	12.94	ug/L	18.404	142.23%
SiO2 251.603†	24840.6	3326	ug/L	19.3	3326	ug/L	19.3	0.58%
Sr 421.552†	67054.5	132.7	ug/L	1.28	132.7	ug/L	1.28	0.96%
Ti 334.940†	-14.5	-0.039	ug/L	0.0148	-0.039	ug/L	0.0148	38.44%
Tl 190.801†	4.6	10.44	ug/L	7.434	10.44	ug/L	7.434	71.20%
V 290.880†	34.3	0.356	ug/L	0.6389	0.356	ug/L	0.6389	179.53%
Zn 206.200†	24.7	8.426	ug/L	0.6151	8.426	ug/L	0.6151	7.30%

Sequence No.: 28
Sample ID: C161021-33
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 12/8/2016 9:10:54 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-33

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: C161021-33

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4341335.7	102.4	%	0.76				0.74%
Sc Radial	460611.3	100.5	%	0.27				0.27%
Ag 328.068†	2.2	0.0642	ug/L	0.07402	0.0642	ug/L	0.07402	115.23%
Al 396.153†	73.9	7.369	ug/L	1.4514	7.369	ug/L	1.4514	19.69%
As 193.696†	-4.4	-17.00	ug/L	10.560	-17.00	ug/L	10.560	62.11%
Ba 233.527†	157.8	7.222	ug/L	0.0325	7.222	ug/L	0.0325	0.45%
Be 313.107†	62.2	0.0414	ug/L	0.02522	0.0414	ug/L	0.02522	60.94%
B 249.677†	36.2	2.127	ug/L	0.1540	2.127	ug/L	0.1540	7.24%
Ca 317.933†	53448.4	13850	ug/L	136.7	13850	ug/L	136.7	0.99%
Cd 214.440†	-0.2	-0.0095	ug/L	0.12031	-0.0095	ug/L	0.12031	>999.9%
Co 228.616†	-5.6	-0.6241	ug/L	0.20174	-0.6241	ug/L	0.20174	32.33%
Cr 267.716†	-0.6	-0.0078	ug/L	0.06056	-0.0078	ug/L	0.06056	775.07%
Cu 324.752†	250.4	0.9630	ug/L	0.23023	0.9630	ug/L	0.23023	23.91%
Fe 238.204†	3.4	26.34	ug/L	14.168	26.34	ug/L	14.168	53.78%
K 766.490†	952.6	475.1	ug/L	11.66	475.1	ug/L	11.66	2.45%
Mg 285.213†	5763.7	974.9	ug/L	6.76	974.9	ug/L	6.76	0.69%
Mn 257.610†	799.5	2.950	ug/L	0.0248	2.950	ug/L	0.0248	0.84%
Mo 202.031†	3.6	1.629	ug/L	4.0243	1.629	ug/L	4.0243	247.05%
Na 589.592†	1423.4	219.7	ug/L	2.02	219.7	ug/L	2.02	0.92%
Ni 231.604†	-3.0	-1.457	ug/L	0.1760	-1.457	ug/L	0.1760	12.09%
Pb 220.353†	-11.8	-11.03	ug/L	34.712	-11.03	ug/L	34.712	314.84%
Sb 206.836†	-1.7	-2.792	ug/L	2.1688	-2.792	ug/L	2.1688	77.67%
Se 196.026†	4.4	20.46	ug/L	14.743	20.46	ug/L	14.743	72.06%
SiO2 251.603†	599.7	80.56	ug/L	0.497	80.56	ug/L	0.497	0.62%
Sr 421.552†	23298.0	46.09	ug/L	0.463	46.09	ug/L	0.463	1.01%
Ti 334.940†	-14.6	-0.039	ug/L	0.0145	-0.039	ug/L	0.0145	37.52%
Tl 190.801†	1.3	3.158	ug/L	6.3092	3.158	ug/L	6.3092	199.76%
V 290.880†	5.6	-0.065	ug/L	0.4260	-0.065	ug/L	0.4260	657.55%
Zn 206.200†	4.5	1.402	ug/L	0.3771	1.402	ug/L	0.3771	26.91%

Sequence No.: 29
Sample ID: C161021-36
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 12/8/2016 9:13:57 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-36

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: C161021-36

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4342931.1	102.4	%	0.40				0.39%
Sc Radial	461584.1	100.7	%	0.57				0.57%
Ag 328.068†	17.4	0.1425	ug/L	0.04335	0.1425	ug/L	0.04335	30.42%
Al 396.153†	-17.6	-2.327	ug/L	0.6840	-2.327	ug/L	0.6840	29.39%
As 193.696†	-1.5	-6.804	ug/L	10.0749	-6.804	ug/L	10.0749	148.08%
Ba 233.527†	1.7	0.0810	ug/L	0.08993	0.0810	ug/L	0.08993	110.99%
Be 313.107†	87.4	0.0959	ug/L	0.01443	0.0959	ug/L	0.01443	15.05%
B 249.677†	709.9	41.70	ug/L	0.335	41.70	ug/L	0.335	0.80%
Ca 317.933†	263.7	68.54	ug/L	0.410	68.54	ug/L	0.410	0.60%
Cd 214.440†	-1.2	-0.1251	ug/L	0.18479	-0.1251	ug/L	0.18479	147.70%
Co 228.616†	-0.3	-0.0267	ug/L	0.08394	-0.0267	ug/L	0.08394	314.72%
Cr 267.716†	-1.1	-0.0905	ug/L	0.26450	-0.0905	ug/L	0.26450	292.27%
Cu 324.752†	-46.5	-0.1459	ug/L	0.10779	-0.1459	ug/L	0.10779	73.86%
Fe 238.204†	1.9	13.90	ug/L	6.844	13.90	ug/L	6.844	49.22%
K 766.490†	96.2	49.84	ug/L	7.365	49.84	ug/L	7.365	14.78%
Mg 285.213†	3.7	0.7171	ug/L	0.64246	0.7171	ug/L	0.64246	89.59%
Mn 257.610†	-3.5	-0.0083	ug/L	0.01628	-0.0083	ug/L	0.01628	195.01%
Mo 202.031†	-2.8	-2.474	ug/L	1.3451	-2.474	ug/L	1.3451	54.37%
Na 589.592†	58.4	9.099	ug/L	6.9533	9.099	ug/L	6.9533	76.42%
Ni 231.604†	-8.5	-1.504	ug/L	0.7820	-1.504	ug/L	0.7820	52.00%
Pb 220.353†	10.0	9.976	ug/L	3.5541	9.976	ug/L	3.5541	35.63%
Sb 206.836†	-2.3	-5.068	ug/L	2.7798	-5.068	ug/L	2.7798	54.85%
Se 196.026†	-1.1	-5.791	ug/L	16.6153	-5.791	ug/L	16.6153	286.91%
SiO2 251.603†	13129.2	1758	ug/L	17.3	1758	ug/L	17.3	0.99%
Sr 421.552†	46.8	0.093	ug/L	0.0216	0.093	ug/L	0.0216	23.32%
Ti 334.940†	-4.3	-0.011	ug/L	0.0245	-0.011	ug/L	0.0245	214.06%
Tl 190.801†	5.1	10.46	ug/L	1.764	10.46	ug/L	1.764	16.86%
V 290.880†	-3.1	-0.042	ug/L	1.2079	-0.042	ug/L	1.2079	>999.9%
Zn 206.200†	3.7	1.308	ug/L	0.5255	1.308	ug/L	0.5255	40.17%

Sequence No.: 30
Sample ID: C161021-39
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 45
Date Collected: 12/8/2016 9:17:00 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-39

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: C161021-39

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4376464.2	103.2	%	0.45				0.43%
Sc Radial	460260.8	100.4	%	1.15				1.14%
Ag 328.068†	10.8	0.1857	ug/L	0.17844	0.1857	ug/L	0.17844	96.10%
Al 396.153†	230.5	24.95	ug/L	5.110	24.95	ug/L	5.110	20.48%
As 193.696†	-4.0	-7.255	ug/L	10.6914	-7.255	ug/L	10.6914	147.37%
Ba 233.527†	385.6	17.68	ug/L	0.047	17.68	ug/L	0.047	0.26%
Be 313.107†	140.5	0.0719	ug/L	0.01072	0.0719	ug/L	0.01072	14.90%
B 249.677†	-78.3	-4.601	ug/L	0.2186	-4.601	ug/L	0.2186	4.75%
Ca 317.933†	190843.3	49440	ug/L	742.3	49440	ug/L	742.3	1.50%
Cd 214.440†	-1.3	0.0455	ug/L	0.36320	0.0455	ug/L	0.36320	799.09%
Co 228.616†	-5.9	-0.3000	ug/L	0.61214	-0.3000	ug/L	0.61214	204.06%
Cr 267.716†	-0.9	0.1209	ug/L	0.42737	0.1209	ug/L	0.42737	353.38%
Cu 324.752†	205.5	0.9634	ug/L	0.05659	0.9634	ug/L	0.05659	5.87%
Fe 238.204†	2.5	24.34	ug/L	20.917	24.34	ug/L	20.917	85.95%
K 766.490†	809.4	371.4	ug/L	47.90	371.4	ug/L	47.90	12.90%
Mg 285.213†	15969.8	2701	ug/L	19.8	2701	ug/L	19.8	0.73%
Mn 257.610†	548.7	2.154	ug/L	0.0444	2.154	ug/L	0.0444	2.06%
Mo 202.031†	8.0	2.218	ug/L	2.6829	2.218	ug/L	2.6829	120.98%
Na 589.592†	8690.4	1345	ug/L	13.0	1345	ug/L	13.0	0.97%
Ni 231.604†	10.2	-2.339	ug/L	1.3661	-2.339	ug/L	1.3661	58.40%
Pb 220.353†	-6.1	-3.352	ug/L	1.3657	-3.352	ug/L	1.3657	40.74%
Sb 206.836†	-2.8	-3.331	ug/L	1.6031	-3.331	ug/L	1.6031	48.13%
Se 196.026†	8.5	35.25	ug/L	8.156	35.25	ug/L	8.156	23.14%
SiO2 251.603†	38911.5	5209	ug/L	16.5	5209	ug/L	16.5	0.32%
Sr 421.552†	258847.6	512.5	ug/L	4.13	512.5	ug/L	4.13	0.81%
Ti 334.940†	-57.4	-0.153	ug/L	0.0169	-0.153	ug/L	0.0169	11.09%
Tl 190.801†	0.2	2.723	ug/L	8.1936	2.723	ug/L	8.1936	300.90%
V 290.880†	57.1	0.438	ug/L	0.3243	0.438	ug/L	0.3243	74.01%
Zn 206.200†	105.6	36.89	ug/L	0.473	36.89	ug/L	0.473	1.28%

Sequence No.: 31
Sample ID: SEQ-CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/8/2016 9:20:04 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCV

Analyte	Back Pressure	Flow
All	232.0 kPa	0.80 L/min

Mean Data: SEQ-CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4260029.5	100.5	%	0.34				0.34%
Sc Radial	466336.3	101.7	%	0.93				0.91%
Ag 328.068†	28773.7	250.3	ug/L	0.76	250.3	ug/L	0.76	0.31%
QC value within limits for Ag 328.068 Recovery = 100.12%								
Al 396.153†	85234.5	12530	ug/L	103.1	12530	ug/L	103.1	0.82%
QC value within limits for Al 396.153 Recovery = 100.21%								
As 193.696†	567.5	2577	ug/L	11.8	2577	ug/L	11.8	0.46%
QC value within limits for As 193.696 Recovery = 103.07%								
Ba 233.527†	10996.8	504.3	ug/L	5.97	504.3	ug/L	5.97	1.18%
QC value within limits for Ba 233.527 Recovery = 100.87%								
Be 313.107†	456447.7	505.9	ug/L	2.56	505.9	ug/L	2.56	0.51%
QC value within limits for Be 313.107 Recovery = 101.18%								
B 249.677†	85680.0	5032	ug/L	26.6	5032	ug/L	26.6	0.53%
QC value within limits for B 249.677 Recovery = 100.64%								
Ca 317.933†	48025.4	12450	ug/L	72.8	12450	ug/L	72.8	0.58%
QC value within limits for Ca 317.933 Recovery = 99.63%								
Cd 214.440†	3752.8	503.3	ug/L	2.94	503.3	ug/L	2.94	0.59%
QC value within limits for Cd 214.440 Recovery = 100.66%								
Co 228.616†	3922.0	501.1	ug/L	0.42	501.1	ug/L	0.42	0.08%
QC value within limits for Co 228.616 Recovery = 100.22%								
Cr 267.716†	30271.4	2540	ug/L	24.2	2540	ug/L	24.2	0.95%
QC value within limits for Cr 267.716 Recovery = 101.58%								
Cu 324.752†	252659.9	990.2	ug/L	3.65	990.2	ug/L	3.65	0.37%
QC value within limits for Cu 324.752 Recovery = 99.02%								
Fe 238.204†	1644.3	12310	ug/L	139.7	12310	ug/L	139.7	1.13%
QC value within limits for Fe 238.204 Recovery = 98.44%								
K 766.490†	49124.1	25080	ug/L	251.2	25080	ug/L	251.2	1.00%
QC value within limits for K 766.490 Recovery = 100.31%								
Mg 285.213†	73226.6	12390	ug/L	108.7	12390	ug/L	108.7	0.88%
QC value within limits for Mg 285.213 Recovery = 99.13%								
Mn 257.610†	276855.3	1013	ug/L	7.8	1013	ug/L	7.8	0.77%
QC value within limits for Mn 257.610 Recovery = 101.27%								
Mo 202.031†	586.5	492.3	ug/L	1.65	492.3	ug/L	1.65	0.34%
QC value within limits for Mo 202.031 Recovery = 98.46%								
Na 589.592†	79571.5	12400	ug/L	157.6	12400	ug/L	157.6	1.27%
QC value within limits for Na 589.592 Recovery = 99.20%								
Ni 231.604†	15047.4	2519	ug/L	17.7	2519	ug/L	17.7	0.70%
QC value within limits for Ni 231.604 Recovery = 100.75%								
Pb 220.353†	2518.1	2524	ug/L	6.2	2524	ug/L	6.2	0.25%
QC value within limits for Pb 220.353 Recovery = 100.97%								
Sb 206.836†	1219.9	2452	ug/L	11.5	2452	ug/L	11.5	0.47%
QC value within limits for Sb 206.836 Recovery = 98.07%								
Se 196.026†	493.2	2581	ug/L	40.3	2581	ug/L	40.3	1.56%
QC value within limits for Se 196.026 Recovery = 103.23%								
SiO2 251.603†	74637.9	10000	ug/L	28.9	10000	ug/L	28.9	0.29%
QC value within limits for SiO2 251.603 Recovery = 100.05%								
Sr 421.552†	253622.2	501.5	ug/L	5.18	501.5	ug/L	5.18	1.03%
QC value within limits for Sr 421.552 Recovery = 100.29%								
Ti 334.940†	187939.5	499.6	ug/L	3.67	499.6	ug/L	3.67	0.74%
QC value within limits for Ti 334.940 Recovery = 99.93%								
Tl 190.801†	1240.9	2549	ug/L	4.3	2549	ug/L	4.3	0.17%
QC value within limits for Tl 190.801 Recovery = 101.95%								
V 290.880†	52659.6	1011	ug/L	9.9	1011	ug/L	9.9	0.98%
QC value within limits for V 290.880 Recovery = 101.14%								
Zn 206.200†	7147.7	2561	ug/L	19.9	2561	ug/L	19.9	0.78%
QC value within limits for Zn 206.200 Recovery = 102.43%								

All analyte(s) passed QC.

Sequence No.: 32
Sample ID: SEQ-CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/8/2016 9:23:10 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCB

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: SEQ-CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4320218.0	101.9	%	0.76				0.74%
Sc Radial	452605.1	98.71	%	0.301				0.31%
Ag 328.068†	9.8	0.0871	ug/L	0.20515	0.0871	ug/L	0.20515	235.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	24.2	3.636	ug/L	1.7166	3.636	ug/L	1.7166	47.21%
QC value within limits for Al 396.153 Recovery = Not calculated								
As 193.696†	-2.3	-10.06	ug/L	3.870	-10.06	ug/L	3.870	38.45%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	3.1	0.1449	ug/L	0.03844	0.1449	ug/L	0.03844	26.52%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	195.9	0.2167	ug/L	0.02584	0.2167	ug/L	0.02584	11.92%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	526.1	30.90	ug/L	2.076	30.90	ug/L	2.076	6.72%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	22.1	5.750	ug/L	0.9463	5.750	ug/L	0.9463	16.46%
QC value within limits for Ca 317.933 Recovery = Not calculated								
Cd 214.440†	0.3	0.0409	ug/L	0.06807	0.0409	ug/L	0.06807	166.44%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	1.1	0.1427	ug/L	0.23015	0.1427	ug/L	0.23015	161.34%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	11.4	0.9629	ug/L	0.35043	0.9629	ug/L	0.35043	36.39%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	0.9	0.0100	ug/L	0.12516	0.0100	ug/L	0.12516	>999.9%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	5.6	41.74	ug/L	12.408	41.74	ug/L	12.408	29.72%
QC value within limits for Fe 238.204 Recovery = Not calculated								
K 766.490†	55.3	28.25	ug/L	7.154	28.25	ug/L	7.154	25.32%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	24.1	4.091	ug/L	0.6202	4.091	ug/L	0.6202	15.16%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	66.8	0.2445	ug/L	0.03834	0.2445	ug/L	0.03834	15.68%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-0.9	-0.7810	ug/L	3.04677	-0.7810	ug/L	3.04677	390.11%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	46.3	7.205	ug/L	2.7196	7.205	ug/L	2.7196	37.75%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	3.7	0.6115	ug/L	0.67606	0.6115	ug/L	0.67606	110.56%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	9.9	9.900	ug/L	2.7532	9.900	ug/L	2.7532	27.81%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	1.8	3.585	ug/L	3.6692	3.585	ug/L	3.6692	102.34%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	1.2	6.347	ug/L	19.5923	6.347	ug/L	19.5923	308.68%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	-29.9	-3.952	ug/L	1.7621	-3.952	ug/L	1.7621	44.58%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	119.0	0.233	ug/L	0.0732	0.233	ug/L	0.0732	31.38%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	83.6	0.222	ug/L	0.0098	0.222	ug/L	0.0098	4.39%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	4.4	9.054	ug/L	6.3387	9.054	ug/L	6.3387	70.01%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	51.9	0.988	ug/L	0.2847	0.988	ug/L	0.2847	28.82%
QC value within limits for V 290.880 Recovery = Not calculated								
Zn 206.200†	1.5	0.543	ug/L	0.2274	0.543	ug/L	0.2274	41.84%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

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Analysis Begun

Start Time: 12/8/2016 9:27:53 AM
Plasma On Time: 12/8/2016 7:13:30 AM
Logged In Analyst: esat
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N3082602Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\2016\A-128 Bonita Seeps Springs\A-128_
Batch ID: 1611171
Results Data Set: A128_1612038_161208
Results Library: C:\pe\Administrator\Results\Results.mdb

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Sequence No.: 1
Autosampler Location: 3
Sample ID: SEQ-ICV
Date Collected: 12/8/2016 9:27:53 AM
Analyst:
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:
User canceled analysis.

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Analysis Begun

Start Time: 12/8/2016 9:28:12 AM
Plasma On Time: 12/8/2016 7:13:30 AM
Logged In Analyst: esat
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N3082602Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\2016\A-128 Bonita Seeps Springs\A-128_
Batch ID: 1611171
Results Data Set: A128_1612038_161208
Results Library: C:\pe\Administrator\Results\Results.mdb

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Sequence No.: 7
Autosampler Location: 26
Sample ID: 1611171-BLK1
Date Collected: 12/8/2016 9:28:12 AM
Analyst: S. VanOvermeiren
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Nebulizer Parameters: 1611171-BLK1

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: 1611171-BLK1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4281307.8	101.0	%	0.95				0.95%
Sc Radial	452177.4	98.61	%	0.351				0.36%
Ag 328.068†	-2.5	-0.0192	ug/L	0.15048	-0.0192	ug/L	0.15048	783.72%
Al 396.153†	-10.7	-1.567	ug/L	0.5872	-1.567	ug/L	0.5872	37.47%
As 193.696†	-1.3	-5.753	ug/L	14.1359	-5.753	ug/L	14.1359	245.71%
Ba 233.527†	1.2	0.0560	ug/L	0.05253	0.0560	ug/L	0.05253	93.80%
Be 313.107†	40.3	0.0444	ug/L	0.02502	0.0444	ug/L	0.02502	56.35%
B 249.677†	234.0	13.74	ug/L	0.551	13.74	ug/L	0.551	4.01%
Ca 317.933†	-4.6	-1.214	ug/L	1.3871	-1.214	ug/L	1.3871	114.26%
Cd 214.440†	-0.8	-0.1077	ug/L	0.25228	-0.1077	ug/L	0.25228	234.28%
Co 228.616†	-1.3	-0.1671	ug/L	0.37159	-0.1671	ug/L	0.37159	222.36%
Cr 267.716†	-1.2	-0.0940	ug/L	0.25242	-0.0940	ug/L	0.25242	268.60%
Cu 324.752†	-47.9	-0.1887	ug/L	0.24205	-0.1887	ug/L	0.24205	128.27%
Fe 238.204†	2.3	16.62	ug/L	16.578	16.62	ug/L	16.578	99.76%
K 766.490†	50.3	25.78	ug/L	17.672	25.78	ug/L	17.672	68.55%
Mg 285.213†	-5.3	-0.8900	ug/L	0.60299	-0.8900	ug/L	0.60299	67.75%
Mn 257.610†	9.9	0.0354	ug/L	0.02868	0.0354	ug/L	0.02868	81.03%
Mo 202.031†	0.1	0.1327	ug/L	2.67240	0.1327	ug/L	2.67240	>999.9%
Na 589.592†	26.0	4.085	ug/L	0.5903	4.085	ug/L	0.5903	14.45%
Ni 231.604†	-0.3	-0.0380	ug/L	0.99343	-0.0380	ug/L	0.99343	>999.9%
Pb 220.353†	1.6	1.640	ug/L	1.3793	1.640	ug/L	1.3793	84.13%
Sb 206.836†	0.2	0.3000	ug/L	2.79792	0.3000	ug/L	2.79792	932.77%
Se 196.026†	-5.4	-28.08	ug/L	16.650	-28.08	ug/L	16.650	59.29%
SiO2 251.603†	15.6	2.049	ug/L	0.9090	2.049	ug/L	0.9090	44.37%

Sr 421.552†	25.5	0.050 ug/L	0.1050	0.050 ug/L	0.1050	211.87%
Ti 334.940†	31.5	0.084 ug/L	0.0071	0.084 ug/L	0.0071	8.45%
Tl 190.801†	1.6	3.230 ug/L	2.0809	3.230 ug/L	2.0809	64.42%
V 290.880†	13.9	0.260 ug/L	0.7253	0.260 ug/L	0.7253	278.76%
Zn 206.200†	1.6	0.575 ug/L	0.2867	0.575 ug/L	0.2867	49.89%

Sequence No.: 8
Sample ID: 1611171-SRM1
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 27
Date Collected: 12/8/2016 9:31:14 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1611171-SRM1

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: 1611171-SRM1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4284119.8	101.0	%	0.58				0.58%
Sc Radial	453400.0	98.88	%	0.685				0.69%
Ag 328.068†	28721.9	249.5	ug/L	1.42	249.5	ug/L	1.42	0.57%
Al 396.153†	6951.9	1019	ug/L	5.1	1019	ug/L	5.1	0.50%
As 193.696†	419.1	1897	ug/L	15.5	1897	ug/L	15.5	0.82%
Ba 233.527†	21873.3	1003	ug/L	4.6	1003	ug/L	4.6	0.46%
Be 313.107†	936284.0	1038	ug/L	1.8	1038	ug/L	1.8	0.17%
B 249.677†	16559.2	972.5	ug/L	5.75	972.5	ug/L	5.75	0.59%
Ca 317.933†	3777.1	992.0	ug/L	2.06	992.0	ug/L	2.06	0.21%
Cd 214.440†	7478.7	1002	ug/L	10.3	1002	ug/L	10.3	1.03%
Co 228.616†	8142.6	1041	ug/L	3.5	1041	ug/L	3.5	0.34%
Cr 267.716†	12047.8	1017	ug/L	5.6	1017	ug/L	5.6	0.55%
Cu 324.752†	246301.2	964.6	ug/L	7.01	964.6	ug/L	7.01	0.73%
Fe 238.204†	123.3	1021	ug/L	10.9	1021	ug/L	10.9	1.06%
K 766.490†	9771.7	4985	ug/L	59.7	4985	ug/L	59.7	1.20%
Mg 285.213†	5728.1	971.7	ug/L	4.99	971.7	ug/L	4.99	0.51%
Mn 257.610†	271870.0	994.5	ug/L	6.03	994.5	ug/L	6.03	0.61%
Mo 202.031†	1142.2	970.2	ug/L	2.24	970.2	ug/L	2.24	0.23%
Na 589.592†	6491.8	979.2	ug/L	8.54	979.2	ug/L	8.54	0.87%
Ni 231.604†	5947.7	988.2	ug/L	4.95	988.2	ug/L	4.95	0.50%
Pb 220.353†	1995.4	1999	ug/L	7.5	1999	ug/L	7.5	0.38%
Sb 206.836†	926.9	1890	ug/L	12.5	1890	ug/L	12.5	0.66%
Se 196.026†	183.3	974.3	ug/L	18.90	974.3	ug/L	18.90	1.94%
SiO2 251.603†	35855.0	4796	ug/L	25.6	4796	ug/L	25.6	0.53%
Sr 421.552†	524748.8	1039	ug/L	0.7	1039	ug/L	0.7	0.06%
Ti 334.940†	377657.0	1004	ug/L	0.4	1004	ug/L	0.4	0.04%
Tl 190.801†	2371.4	4851	ug/L	42.4	4851	ug/L	42.4	0.87%
V 290.880†	50340.0	967.6	ug/L	7.63	967.6	ug/L	7.63	0.79%
Zn 206.200†	2781.4	997.2	ug/L	1.84	997.2	ug/L	1.84	0.18%

Matrix Recovery Check: 1611171-SRM1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al 396.153	998.4	1019	5.142	ug/L	102.1
Ca 317.933	998.8	992.0	2.060	ug/L	99.3
Fe 238.204	1017	1021	10.858	ug/L	100.5
K 766.490	5026	4985	59.677	ug/L	99.2
Mg 285.213	999.1	971.7	4.986	ug/L	97.3
Na 589.592	1004	979.2	8.538	ug/L	97.5
Sr 421.552	1000	1039	0.671	ug/L	103.9
Ag 328.068	250.0	249.5	1.422	ug/L	99.8
As 193.696	1994	1897	15.488	ug/L	95.1
Ba 233.527	1000	1003	4.611	ug/L	100.2
Be 313.107	1000	1038	1.801	ug/L	103.8
B 249.677	1014	972.5	5.750	ug/L	95.9
Cd 214.440	999.9	1002	10.347	ug/L	100.2
Co 228.616	999.8	1041	3.516	ug/L	104.1
Cr 267.716	999.9	1017	5.552	ug/L	101.7
Cu 324.752	999.8	964.6	7.010	ug/L	96.5
Mn 257.610	1000	994.5	6.033	ug/L	99.4
Mo 202.031	1000	970.2	2.244	ug/L	97.0
Ni 231.604	1000.0	988.2	4.947	ug/L	98.8
Pb 220.353	2002	1999	7.549	ug/L	99.8
Sb 206.836	2000	1890	12.473	ug/L	94.5
Se 196.026	971.9	974.3	18.900	ug/L	100.2

SiO2 251.603	5002	4796	25.594	ug/L	95.9
Ti 334.940	1000	1004	0.375	ug/L	100.4
Tl 190.801	5003	4851	42.434	ug/L	97.0
V 290.880	1000	967.6	7.629	ug/L	96.7
Zn 206.200	1001	997.2	1.839	ug/L	99.7

Sequence No.: 9
Sample ID: C161021-02
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 28
Date Collected: 12/8/2016 9:34:26 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-02

Analyte	Back Pressure	Flow
All	230.0 kPa	0.80 L/min

Mean Data: C161021-02

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4219419.6	99.50	%	0.414				0.42%
Sc Radial	455935.3	99.43	%	0.872				0.88%
Ag 328.068†	50.7	0.4014	ug/L	0.03364	0.4014	ug/L	0.03364	8.38%
Al 396.153†	506.2	52.07	ug/L	8.582	52.07	ug/L	8.582	16.48%
As 193.696†	-3.9	10.20	ug/L	5.899	10.20	ug/L	5.899	57.86%
Ba 233.527†	177.9	8.196	ug/L	0.0677	8.196	ug/L	0.0677	0.83%
Be 313.107†	480.8	0.3176	ug/L	0.01068	0.3176	ug/L	0.01068	3.36%
B 249.677†	92.3	5.422	ug/L	0.2396	5.422	ug/L	0.2396	4.42%
Ca 317.933†	479249.8	124200	ug/L	966.1	124200	ug/L	966.1	0.78%
Cd 214.440†	-7.1	-0.3876	ug/L	0.40485	-0.3876	ug/L	0.40485	104.44%
Co 228.616†	64.7	9.206	ug/L	0.2314	9.206	ug/L	0.2314	2.51%
Cr 267.716†	-2.0	0.2316	ug/L	0.50066	0.2316	ug/L	0.50066	216.22%
Cu 324.752†	42.5	1.046	ug/L	0.0630	1.046	ug/L	0.0630	6.03%
Fe 238.204†	641.9	4796	ug/L	63.8	4796	ug/L	63.8	1.33%
K 766.490†	1533.0	680.7	ug/L	23.85	680.7	ug/L	23.85	3.50%
Mg 285.213†	33923.4	5740	ug/L	72.3	5740	ug/L	72.3	1.26%
Mn 257.610†	584044.4	2136	ug/L	3.4	2136	ug/L	3.4	0.16%
Mo 202.031†	11.2	-1.455	ug/L	1.7998	-1.455	ug/L	1.7998	123.68%
Na 589.592†	14149.0	2179	ug/L	40.2	2179	ug/L	40.2	1.84%
Ni 231.604†	47.5	-2.299	ug/L	0.1891	-2.299	ug/L	0.1891	8.22%
Pb 220.353†	-7.0	0.4132	ug/L	4.04436	0.4132	ug/L	4.04436	978.82%
Sb 206.836†	-0.8	2.914	ug/L	5.3137	2.914	ug/L	5.3137	182.33%
Se 196.026†	7.2	19.48	ug/L	27.156	19.48	ug/L	27.156	139.41%
SiO2 251.603†	110366.5	14770	ug/L	37.8	14770	ug/L	37.8	0.26%
Sr 421.552†	577369.2	1143	ug/L	14.9	1143	ug/L	14.9	1.31%
Ti 334.940†	71.8	0.191	ug/L	0.0051	0.191	ug/L	0.0051	2.68%
Tl 190.801†	3.1	9.714	ug/L	3.9501	9.714	ug/L	3.9501	40.66%
V 290.880†	127.0	0.497	ug/L	0.2831	0.497	ug/L	0.2831	56.96%
Zn 206.200†	844.7	298.8	ug/L	4.03	298.8	ug/L	4.03	1.35%

Sequence No.: 10
Sample ID: 1611171-DUP1
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 29
Date Collected: 12/8/2016 9:37:37 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1611171-DUP1

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: 1611171-DUP1

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4157631.7	98.04	%	0.028				0.03%
Sc Radial	458646.8	100.0	%	0.91				0.91%
Ag 328.068†	16.8	0.1033	ug/L	0.11585	0.1033	ug/L	0.11585	112.17%
Al 396.153†	513.5	53.33	ug/L	1.129	53.33	ug/L	1.129	2.12%
As 193.696†	-5.3	3.900	ug/L	17.5773	3.900	ug/L	17.5773	450.74%
Ba 233.527†	180.4	8.308	ug/L	0.1195	8.308	ug/L	0.1195	1.44%
Be 313.107†	368.0	0.1939	ug/L	0.03297	0.1939	ug/L	0.03297	17.00%
B 249.677†	34.5	2.029	ug/L	0.4332	2.029	ug/L	0.4332	21.35%
Ca 317.933†	476854.8	123500	ug/L	2161.9	123500	ug/L	2161.9	1.75%
Cd 214.440†	-6.6	-0.3262	ug/L	0.37193	-0.3262	ug/L	0.37193	114.01%
Co 228.616†	62.5	8.926	ug/L	0.9931	8.926	ug/L	0.9931	11.13%
Cr 267.716†	-2.4	0.1915	ug/L	0.18734	0.1915	ug/L	0.18734	97.80%
Cu 324.752†	-60.6	0.6509	ug/L	0.13836	0.6509	ug/L	0.13836	21.26%
Fe 238.204†	646.7	4831	ug/L	61.4	4831	ug/L	61.4	1.27%
K 766.490†	1550.4	690.1	ug/L	7.37	690.1	ug/L	7.37	1.07%
Mg 285.213†	33847.5	5727	ug/L	99.0	5727	ug/L	99.0	1.73%
Mn 257.610†	585889.9	2143	ug/L	2.1	2143	ug/L	2.1	0.10%
Mo 202.031†	10.9	-1.604	ug/L	3.6989	-1.604	ug/L	3.6989	230.57%
Na 589.592†	14254.6	2195	ug/L	48.0	2195	ug/L	48.0	2.18%
Ni 231.604†	56.6	-0.7584	ug/L	1.68461	-0.7584	ug/L	1.68461	222.12%
Pb 220.353†	-7.4	-0.0707	ug/L	1.84120	-0.0707	ug/L	1.84120	>999.9%
Sb 206.836†	-0.9	2.609	ug/L	8.1116	2.609	ug/L	8.1116	310.87%
Se 196.026†	10.3	35.41	ug/L	7.726	35.41	ug/L	7.726	21.82%
SiO2 251.603†	111365.0	14910	ug/L	44.1	14910	ug/L	44.1	0.30%
Sr 421.552†	576022.4	1140	ug/L	12.1	1140	ug/L	12.1	1.06%
Ti 334.940†	16.6	0.044	ug/L	0.0553	0.044	ug/L	0.0553	125.72%
Tl 190.801†	4.8	13.20	ug/L	5.773	13.20	ug/L	5.773	43.74%
V 290.880†	90.9	-0.186	ug/L	0.6855	-0.186	ug/L	0.6855	369.03%
Zn 206.200†	847.2	299.7	ug/L	1.03	299.7	ug/L	1.03	0.34%

Duplicate Check: 1611171-DUP1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Sc Radial	99.43	100.0	0.910	%	0.6
Al 396.153	52.07	53.33	1.129	ug/L	2.4
Ca 317.933	124200	123500	2161.902	ug/L	0.5
Fe 238.204	4796	4831	61.400	ug/L	0.7
K 766.490	680.7	690.1	7.374	ug/L	1.4
Mg 285.213	5740	5727	98.971	ug/L	0.2
Na 589.592	2179	2195	47.963	ug/L	0.8
Sr 421.552	1143	1140	12.122	ug/L	0.2
Sc Axial	99.50	98.04	0.028	%	1.5
Ag 328.068	0.4014	0.1033	0.116	ug/L	118.1
As 193.696	10.20	3.900	17.577	ug/L	89.3
Ba 233.527	8.196	8.308	0.120	ug/L	1.4
Be 313.107	0.3176	0.1939	0.033	ug/L	48.4
B 249.677	5.422	2.029	0.433	ug/L	91.1
Cd 214.440	-0.3876	-0.3262	0.372	ug/L	-17.2
Co 228.616	9.206	8.926	0.993	ug/L	3.1
Cr 267.716	0.2316	0.1915	0.187	ug/L	18.9
Cu 324.752	1.046	0.6509	0.138	ug/L	46.6
Mn 257.610	2136	2143	2.085	ug/L	0.3
Mo 202.031	-1.455	-1.604	3.699	ug/L	-9.7
Ni 231.604	-2.299	-0.7584	1.685	ug/L	-100.8
Pb 220.353	0.4132	-0.0707	1.841	ug/L	282.5

Sb 206.836	2.914	2.609	8.112	ug/L	11.0
Se 196.026	19.48	35.41	7.726	ug/L	58.0
SiO2 251.603	14770	14910	44.085	ug/L	0.9
Ti 334.940	0.191	0.044	0.055	ug/L	125.1
Tl 190.801	9.714	13.20	5.773	ug/L	30.4
V 290.880	0.497	-0.186	0.685	ug/L	438.7
Zn 206.200	298.8	299.7	1.026	ug/L	0.3

Sequence No.: 11
Sample ID: SEQ-SRD1 @5X
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 30
Date Collected: 12/8/2016 9:40:49 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-SRD1 @5X

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: SEQ-SRD1 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4258320.0	100.4	%	0.23				0.23%
Sc Radial	461530.1	100.7	%	0.66				0.66%
Ag 328.068†	-0.9	-0.0175	ug/L	0.10204	-0.0877	ug/L	0.51018	581.73%
Al 396.153†	146.1	16.90	ug/L	2.425	84.51	ug/L	12.125	14.35%
As 193.696†	-4.0	-12.10	ug/L	12.481	-60.49	ug/L	62.405	103.17%
Ba 233.527†	37.7	1.738	ug/L	0.1073	8.691	ug/L	0.5366	6.17%
Be 313.107†	91.4	0.0581	ug/L	0.01759	0.2905	ug/L	0.08793	30.27%
B 249.677†	74.1	4.354	ug/L	0.1900	21.77	ug/L	0.950	4.36%
Ca 317.933†	95894.2	24840	ug/L	40.4	124200	ug/L	202.1	0.16%
Cd 214.440†	-3.1	-0.3061	ug/L	0.41235	-1.530	ug/L	2.0617	134.72%
Co 228.616†	12.7	1.818	ug/L	0.2443	9.090	ug/L	1.2215	13.44%
Cr 267.716†	0.9	0.1656	ug/L	0.10200	0.8281	ug/L	0.51002	61.59%
Cu 324.752†	250.2	1.151	ug/L	0.2940	5.757	ug/L	1.4702	25.54%
Fe 238.204†	126.7	946.4	ug/L	15.65	4732	ug/L	78.2	1.65%
K 766.490†	316.8	141.3	ug/L	10.25	706.5	ug/L	51.24	7.25%
Mg 285.213†	6727.1	1138	ug/L	10.4	5692	ug/L	52.1	0.92%
Mn 257.610†	119280.2	436.3	ug/L	2.44	2181	ug/L	12.2	0.56%
Mo 202.031†	5.5	2.435	ug/L	2.9481	12.18	ug/L	14.741	121.05%
Na 589.592†	2822.5	434.6	ug/L	9.70	2173	ug/L	48.5	2.23%
Ni 231.604†	16.0	0.6284	ug/L	1.59427	3.142	ug/L	7.9714	253.71%
Pb 220.353†	4.1	5.586	ug/L	1.4416	27.93	ug/L	7.208	25.81%
Sb 206.836†	-0.6	-0.2610	ug/L	5.04490	-1.305	ug/L	25.2245	>999.9%
Se 196.026†	3.5	14.51	ug/L	22.581	72.56	ug/L	112.903	155.60%
SiO2 251.603†	21828.1	2922	ug/L	16.1	14610	ug/L	80.4	0.55%
Sr 421.552†	116067.1	229.8	ug/L	1.26	1149	ug/L	6.3	0.55%
Ti 334.940†	-11.2	-0.030	ug/L	0.0464	-0.149	ug/L	0.2321	155.59%
Tl 190.801†	-0.5	-0.298	ug/L	4.5300	-1.488	ug/L	22.6500	>999.9%
V 290.880†	89.8	1.343	ug/L	0.3285	6.714	ug/L	1.6424	24.46%
Zn 206.200†	173.3	61.33	ug/L	1.397	306.7	ug/L	6.99	2.28%

Dilution Check: SEQ-SRD1 @5X

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Sc Radial	19.89	100.7	0.662	%	406.1
Al 396.153	10.41	16.90	2.425	ug/L	62.3
Ca 317.933	24830	24840	40.426	ug/L	0.0
Fe 238.204	959.1	946.4	15.647	ug/L	1.3
K 766.490	136.1	141.3	10.247	ug/L	3.8
Mg 285.213	1148	1138	10.427	ug/L	0.8
Na 589.592	435.8	434.6	9.703	ug/L	0.3
Sr 421.552	228.6	229.8	1.258	ug/L	0.5
Sc Axial	19.90	100.4	0.234	%	404.6
Ag 328.068	0.0803	-0.0175	0.102	ug/L	121.9
As 193.696	2.039	-12.10	12.481	ug/L	693.3
Ba 233.527	1.639	1.738	0.107	ug/L	6.0
Be 313.107	0.0635	0.0581	0.018	ug/L	8.5
B 249.677	1.084	4.354	0.190	ug/L	301.5
Cd 214.440	-0.0775	-0.3061	0.412	ug/L	-294.8
Co 228.616	1.841	1.818	0.244	ug/L	1.3
Cr 267.716	0.0463	0.1656	0.102	ug/L	257.6
Cu 324.752	0.2092	1.151	0.294	ug/L	450.3
Mn 257.610	427.3	436.3	2.435	ug/L	2.1
Mo 202.031	-0.2910	2.435	2.948	ug/L	-936.8
Ni 231.604	-0.4599	0.6284	1.594	ug/L	-236.6
Pb 220.353	0.0826	5.586	1.442	ug/L	6659.8

Sb 206.836	0.5829	-0.2610	5.045	ug/L	144.8
Se 196.026	3.896	14.51	22.581	ug/L	272.5
SiO2 251.603	2955	2922	16.074	ug/L	1.1
Ti 334.940	0.038	-0.030	0.046	ug/L	178.2
Tl 190.801	1.943	-0.298	4.530	ug/L	115.3
V 290.880	0.099	1.343	0.328	ug/L	1250.7
Zn 206.200	59.76	61.33	1.397	ug/L	2.6

Sequence No.: 12
Sample ID: 1611171-MS1
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 31
Date Collected: 12/8/2016 9:43:53 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1611171-MS1

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: 1611171-MS1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4215370.8	99.40	%	0.445				0.45%
Sc Radial	457643.8	99.80	%	0.254				0.25%
Ag 328.068†	8161.8	70.87	ug/L	0.104	70.87	ug/L	0.104	0.15%
Al 396.153†	13950.1	2021	ug/L	18.6	2021	ug/L	18.6	0.92%
As 193.696†	169.4	792.5	ug/L	16.33	792.5	ug/L	16.33	2.06%
Ba 233.527†	4483.0	205.6	ug/L	1.16	205.6	ug/L	1.16	0.56%
Be 313.107†	181930.5	201.5	ug/L	0.48	201.5	ug/L	0.48	0.24%
B 249.677†	4935.5	289.9	ug/L	0.83	289.9	ug/L	0.83	0.29%
Ca 317.933†	481650.6	124800	ug/L	1590.4	124800	ug/L	1590.4	1.27%
Cd 214.440†	1447.6	194.6	ug/L	1.63	194.6	ug/L	1.63	0.84%
Co 228.616†	1658.7	213.3	ug/L	0.53	213.3	ug/L	0.53	0.25%
Cr 267.716†	4714.5	397.4	ug/L	2.90	397.4	ug/L	2.90	0.73%
Cu 324.752†	75667.5	297.4	ug/L	0.35	297.4	ug/L	0.35	0.12%
Fe 238.204†	1032.7	7735	ug/L	12.0	7735	ug/L	12.0	0.16%
K 766.490†	21174.8	10720	ug/L	103.2	10720	ug/L	103.2	0.96%
Mg 285.213†	45139.3	7640	ug/L	60.0	7640	ug/L	60.0	0.78%
Mn 257.610†	634527.0	2321	ug/L	8.4	2321	ug/L	8.4	0.36%
Mo 202.031†	485.1	399.7	ug/L	2.38	399.7	ug/L	2.38	0.60%
Na 589.592†	33473.8	5188	ug/L	24.2	5188	ug/L	24.2	0.47%
Ni 231.604†	2928.0	477.6	ug/L	3.21	477.6	ug/L	3.21	0.67%
Pb 220.353†	981.7	990.3	ug/L	6.88	990.3	ug/L	6.88	0.69%
Sb 206.836†	386.5	791.8	ug/L	10.77	791.8	ug/L	10.77	1.36%
Se 196.026†	379.3	1954	ug/L	32.2	1954	ug/L	32.2	1.65%
SiO2 251.603†	124616.6	16680	ug/L	30.5	16680	ug/L	30.5	0.18%
Sr 421.552†	674649.3	1335	ug/L	20.4	1335	ug/L	20.4	1.53%
Ti 334.940†	75338.9	200.3	ug/L	0.44	200.3	ug/L	0.44	0.22%
Tl 190.801†	958.6	1962	ug/L	6.2	1962	ug/L	6.2	0.32%
V 290.880†	15187.9	290.6	ug/L	1.19	290.6	ug/L	1.19	0.41%
Zn 206.200†	1366.4	487.5	ug/L	6.82	487.5	ug/L	6.82	1.40%

Matrix Recovery Check: 1611171-MS1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al 396.153	2052	2021	18.580	ug/L	98.4
Ca 317.933	125200	124800	1590.441	ug/L	62.8
Fe 238.204	7796	7735	12.001	ug/L	98.0
K 766.490	10680	10720	103.164	ug/L	100.4
Mg 285.213	7740	7640	59.963	ug/L	95.0
Na 589.592	5179	5188	24.207	ug/L	100.3
Sr 421.552	1343	1335	20.408	ug/L	96.2
Ag 328.068	75.40	70.87	0.104	ug/L	94.0
As 193.696	810.2	792.5	16.328	ug/L	97.8
Ba 233.527	208.2	205.6	1.157	ug/L	98.7
Be 313.107	200.3	201.5	0.479	ug/L	100.6
B 249.677	305.4	289.9	0.831	ug/L	94.8
Cd 214.440	199.6	194.6	1.629	ug/L	97.5
Co 228.616	209.2	213.3	0.530	ug/L	102.0
Cr 267.716	400.2	397.4	2.903	ug/L	99.3
Cu 324.752	301.0	297.4	0.350	ug/L	98.8
Mn 257.610	2336	2321	8.407	ug/L	92.3
Mo 202.031	398.5	399.7	2.385	ug/L	100.3
Ni 231.604	497.7	477.6	3.211	ug/L	96.0
Pb 220.353	1000	990.3	6.881	ug/L	99.0
Sb 206.836	802.9	791.8	10.775	ug/L	98.6
Se 196.026	2019	1954	32.172	ug/L	96.7

SiO2 251.603	16770	16680	30.492	ug/L	95.4
Ti 334.940	200.2	200.3	0.442	ug/L	100.0
Tl 190.801	2010	1962	6.216	ug/L	97.6
V 290.880	300.5	290.6	1.191	ug/L	96.7
Zn 206.200	498.8	487.5	6.820	ug/L	94.3

Sequence No.: 13
Sample ID: C161021-05
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 32
Date Collected: 12/8/2016 9:47:05 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-05

Analyte	Back Pressure	Flow
All	232.0 kPa	0.80 L/min

Mean Data: C161021-05

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4207379.0	99.21	%	0.303				0.31%
Sc Radial	454132.1	99.04	%	1.147				1.16%
Ag 328.068†	60.9	0.7277	ug/L	0.23883	0.7277	ug/L	0.23883	32.82%
Al 396.153†	1607.4	189.5	ug/L	4.76	189.5	ug/L	4.76	2.51%
As 193.696†	-8.1	5.485	ug/L	29.4253	5.485	ug/L	29.4253	536.45%
Ba 233.527†	179.4	8.195	ug/L	0.1729	8.195	ug/L	0.1729	2.11%
Be 313.107†	890.1	0.5894	ug/L	0.05457	0.5894	ug/L	0.05457	9.26%
B 249.677†	-118.6	-6.967	ug/L	0.2938	-6.967	ug/L	0.2938	4.22%
Ca 317.933†	777810.0	201500	ug/L	3509.1	201500	ug/L	3509.1	1.74%
Cd 214.440†	-6.4	-0.3590	ug/L	0.30115	-0.3590	ug/L	0.30115	83.88%
Co 228.616†	219.3	28.91	ug/L	0.441	28.91	ug/L	0.441	1.52%
Cr 267.716†	-3.8	0.2124	ug/L	0.25930	0.2124	ug/L	0.25930	122.09%
Cu 324.752†	713.7	4.001	ug/L	0.1053	4.001	ug/L	0.1053	2.63%
Fe 238.204†	1652.4	12330	ug/L	211.9	12330	ug/L	211.9	1.72%
K 766.490†	2836.8	1281	ug/L	7.3	1281	ug/L	7.3	0.57%
Mg 285.213†	97383.0	16480	ug/L	223.7	16480	ug/L	223.7	1.36%
Mn 257.610†	1098178.3	4017	ug/L	7.5	4017	ug/L	7.5	0.19%
Mo 202.031†	12.1	-9.603	ug/L	4.6670	-9.603	ug/L	4.6670	48.60%
Na 589.592†	8768.5	1331	ug/L	12.7	1331	ug/L	12.7	0.95%
Ni 231.604†	127.1	6.574	ug/L	1.0159	6.574	ug/L	1.0159	15.45%
Pb 220.353†	-12.3	0.7787	ug/L	2.71131	0.7787	ug/L	2.71131	348.17%
Sb 206.836†	-0.1	4.066	ug/L	1.4181	4.066	ug/L	1.4181	34.88%
Se 196.026†	10.5	30.97	ug/L	54.528	30.97	ug/L	54.528	176.05%
SiO2 251.603†	92145.7	12340	ug/L	43.0	12340	ug/L	43.0	0.35%
Sr 421.552†	308948.2	610.4	ug/L	6.31	610.4	ug/L	6.31	1.03%
Ti 334.940†	64.4	0.171	ug/L	0.0263	0.171	ug/L	0.0263	15.36%
Tl 190.801†	3.2	9.248	ug/L	3.6770	9.248	ug/L	3.6770	39.76%
V 290.880†	175.3	0.148	ug/L	0.2931	0.148	ug/L	0.2931	198.17%
Zn 206.200†	1510.3	534.6	ug/L	5.84	534.6	ug/L	5.84	1.09%

Sequence No.: 14
Sample ID: 1611171-MS3
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 33
Date Collected: 12/8/2016 9:51:10 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1611171-MS3

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: 1611171-MS3

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4175490.6	98.46	%	0.171				0.17%
Sc Radial	458573.7	100.0	%	1.12				1.12%
Ag 328.068†	8152.8	71.02	ug/L	0.351	71.02	ug/L	0.351	0.49%
Al 396.153†	14997.4	2151	ug/L	34.2	2151	ug/L	34.2	1.59%
As 193.696†	165.7	789.4	ug/L	11.17	789.4	ug/L	11.17	1.42%
Ba 233.527†	4445.9	203.8	ug/L	0.34	203.8	ug/L	0.34	0.16%
Be 313.107†	182750.2	202.2	ug/L	1.10	202.2	ug/L	1.10	0.54%
B 249.677†	4799.7	281.9	ug/L	1.23	281.9	ug/L	1.23	0.43%
Ca 317.933†	773065.6	200300	ug/L	2505.2	200300	ug/L	2505.2	1.25%
Cd 214.440†	1443.7	194.0	ug/L	0.29	194.0	ug/L	0.29	0.15%
Co 228.616†	1798.8	231.1	ug/L	1.18	231.1	ug/L	1.18	0.51%
Cr 267.716†	4735.3	399.2	ug/L	1.07	399.2	ug/L	1.07	0.27%
Cu 324.752†	77191.3	303.7	ug/L	1.26	303.7	ug/L	1.26	0.41%
Fe 238.204†	1999.7	14950	ug/L	191.4	14950	ug/L	191.4	1.28%
K 766.490†	22643.5	11400	ug/L	127.5	11400	ug/L	127.5	1.12%
Mg 285.213†	106612.4	18040	ug/L	231.2	18040	ug/L	231.2	1.28%
Mn 257.610†	1141891.1	4176	ug/L	15.4	4176	ug/L	15.4	0.37%
Mo 202.031†	475.3	382.5	ug/L	2.57	382.5	ug/L	2.57	0.67%
Na 589.592†	28193.3	4356	ug/L	52.4	4356	ug/L	52.4	1.20%
Ni 231.604†	3017.0	488.2	ug/L	2.63	488.2	ug/L	2.63	0.54%
Pb 220.353†	978.5	992.6	ug/L	5.20	992.6	ug/L	5.20	0.52%
Sb 206.836†	386.2	790.6	ug/L	2.45	790.6	ug/L	2.45	0.31%
Se 196.026†	385.2	1979	ug/L	8.5	1979	ug/L	8.5	0.43%
SiO2 251.603†	106124.2	14210	ug/L	24.4	14210	ug/L	24.4	0.17%
Sr 421.552†	406453.4	803.3	ug/L	9.67	803.3	ug/L	9.67	1.20%
Ti 334.940†	75447.5	200.6	ug/L	0.62	200.6	ug/L	0.62	0.31%
Tl 190.801†	949.3	1943	ug/L	8.3	1943	ug/L	8.3	0.43%
V 290.880†	15334.6	292.2	ug/L	0.39	292.2	ug/L	0.39	0.13%
Zn 206.200†	2028.8	722.2	ug/L	3.76	722.2	ug/L	3.76	0.52%

Matrix Recovery Check: 1611171-MS3

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al 396.153	2190	2151	34.248	ug/L	98.1
Ca 317.933	202500	200300	2505.156	ug/L	-122.3
Fe 238.204	15330	14950	191.427	ug/L	87.2
K 766.490	11280	11400	127.463	ug/L	101.2
Mg 285.213	18480	18040	231.198	ug/L	78.2
Na 589.592	4331	4356	52.446	ug/L	100.8
Sr 421.552	810.4	803.3	9.672	ug/L	96.5
Ag 328.068	75.73	71.02	0.351	ug/L	93.7
As 193.696	805.5	789.4	11.172	ug/L	98.0
Ba 233.527	208.2	203.8	0.336	ug/L	97.8
Be 313.107	200.6	202.2	1.097	ug/L	100.8
B 249.677	293.0	281.9	1.226	ug/L	96.3
Cd 214.440	199.6	194.0	0.287	ug/L	97.2
Co 228.616	228.9	231.1	1.177	ug/L	101.1
Cr 267.716	400.2	399.2	1.068	ug/L	99.8
Cu 324.752	304.0	303.7	1.258	ug/L	99.9
Mn 257.610	4217	4176	15.373	ug/L	79.9
Mo 202.031	390.4	382.5	2.568	ug/L	98.0
Ni 231.604	506.6	488.2	2.633	ug/L	96.3
Pb 220.353	1001	992.6	5.200	ug/L	99.2
Sb 206.836	804.1	790.6	2.454	ug/L	98.3
Se 196.026	2031	1979	8.488	ug/L	97.4

SiO2 251.603	14340	14210	24.356	ug/L	93.6
Ti 334.940	200.2	200.6	0.618	ug/L	100.2
Tl 190.801	2009	1943	8.302	ug/L	96.7
V 290.880	300.1	292.2	0.392	ug/L	97.3
Zn 206.200	734.6	722.2	3.759	ug/L	93.8

Sequence No.: 15
Sample ID: C161021-08
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 34
Date Collected: 12/8/2016 9:55:16 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-08

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: C161021-08

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4204717.4	99.15	%	0.258				0.26%
Sc Radial	458134.4	99.91	%	0.317				0.32%
Ag 328.068†	-13.8	0.4360	ug/L	0.15264	0.4360	ug/L	0.15264	35.01%
Al 396.153†	4565.8	637.2	ug/L	5.97	637.2	ug/L	5.97	0.94%
As 193.696†	-10.7	-7.099	ug/L	6.2103	-7.099	ug/L	6.2103	87.48%
Ba 233.527†	255.7	11.78	ug/L	0.107	11.78	ug/L	0.107	0.91%
Be 313.107†	1968.1	1.860	ug/L	0.0725	1.860	ug/L	0.0725	3.89%
B 249.677†	-132.1	-7.757	ug/L	0.1039	-7.757	ug/L	0.1039	1.34%
Ca 317.933†	657905.0	170400	ug/L	2488.7	170400	ug/L	2488.7	1.46%
Cd 214.440†	-6.4	-0.2574	ug/L	0.13651	-0.2574	ug/L	0.13651	53.04%
Co 228.616†	199.7	25.88	ug/L	0.131	25.88	ug/L	0.131	0.50%
Cr 267.716†	-4.1	0.3268	ug/L	0.06778	0.3268	ug/L	0.06778	20.74%
Cu 324.752†	2117.4	10.77	ug/L	0.213	10.77	ug/L	0.213	1.98%
Fe 238.204†	3178.9	23700	ug/L	172.9	23700	ug/L	172.9	0.73%
K 766.490†	2932.4	1358	ug/L	0.8	1358	ug/L	0.8	0.06%
Mg 285.213†	84298.4	14270	ug/L	151.2	14270	ug/L	151.2	1.06%
Mn 257.610†	945823.1	3459	ug/L	12.5	3459	ug/L	12.5	0.36%
Mo 202.031†	10.4	-6.513	ug/L	2.4938	-6.513	ug/L	2.4938	38.29%
Na 589.592†	9845.5	1502	ug/L	5.1	1502	ug/L	5.1	0.34%
Ni 231.604†	101.5	3.771	ug/L	0.6986	3.771	ug/L	0.6986	18.53%
Pb 220.353†	-8.6	4.276	ug/L	6.7154	4.276	ug/L	6.7154	157.07%
Sb 206.836†	-1.1	-0.6472	ug/L	0.67727	-0.6472	ug/L	0.67727	104.65%
Se 196.026†	11.0	42.23	ug/L	37.381	42.23	ug/L	37.381	88.52%
SiO2 251.603†	120348.5	16110	ug/L	33.7	16110	ug/L	33.7	0.21%
Sr 421.552†	422838.1	835.4	ug/L	10.10	835.4	ug/L	10.10	1.21%
Ti 334.940†	104.1	0.277	ug/L	0.0308	0.277	ug/L	0.0308	11.12%
Tl 190.801†	5.9	14.80	ug/L	7.044	14.80	ug/L	7.044	47.61%
V 290.880†	234.0	1.068	ug/L	0.7164	1.068	ug/L	0.7164	67.11%
Zn 206.200†	1290.0	456.6	ug/L	1.60	456.6	ug/L	1.60	0.35%

Sequence No.: 16
Sample ID: Blank
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 35
Date Collected: 12/8/2016 9:58:23 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Blank

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: Blank

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4311555.7	101.7	%	0.48				0.47%
Sc Radial	456412.4	99.54	%	0.561				0.56%
Ag 328.068†	13.6	0.1202	ug/L	0.07116	0.1202	ug/L	0.07116	59.21%
Al 396.153†	1.7	0.2518	ug/L	2.44389	0.2518	ug/L	2.44389	970.61%
As 193.696†	-1.3	-5.816	ug/L	4.5921	-5.816	ug/L	4.5921	78.96%
Ba 233.527†	1.5	0.0693	ug/L	0.16491	0.0693	ug/L	0.16491	238.10%
Be 313.107†	128.0	0.1413	ug/L	0.00505	0.1413	ug/L	0.00505	3.57%
B 249.677†	108.2	6.357	ug/L	0.2702	6.357	ug/L	0.2702	4.25%
Ca 317.933†	431.3	111.7	ug/L	4.35	111.7	ug/L	4.35	3.89%
Cd 214.440†	-1.3	-0.1674	ug/L	0.18693	-0.1674	ug/L	0.18693	111.64%
Co 228.616†	-3.8	-0.4914	ug/L	0.48352	-0.4914	ug/L	0.48352	98.39%
Cr 267.716†	0.2	0.0258	ug/L	0.44736	0.0258	ug/L	0.44736	>999.9%
Cu 324.752†	-7.9	-0.0290	ug/L	0.13485	-0.0290	ug/L	0.13485	465.64%
Fe 238.204†	4.4	32.79	ug/L	9.339	32.79	ug/L	9.339	28.48%
K 766.490†	87.2	44.54	ug/L	14.980	44.54	ug/L	14.980	33.63%
Mg 285.213†	60.2	10.20	ug/L	0.241	10.20	ug/L	0.241	2.37%
Mn 257.610†	515.5	1.885	ug/L	0.1161	1.885	ug/L	0.1161	6.16%
Mo 202.031†	-0.3	-0.2324	ug/L	3.67174	-0.2324	ug/L	3.67174	>999.9%
Na 589.592†	11.9	1.839	ug/L	1.6708	1.839	ug/L	1.6708	90.87%
Ni 231.604†	-6.3	-1.074	ug/L	0.6582	-1.074	ug/L	0.6582	61.29%
Pb 220.353†	9.9	9.879	ug/L	2.2480	9.879	ug/L	2.2480	22.76%
Sb 206.836†	0.8	1.679	ug/L	4.9911	1.679	ug/L	4.9911	297.24%
Se 196.026†	-2.8	-14.25	ug/L	37.180	-14.25	ug/L	37.180	260.83%
SiO2 251.603†	-15.1	-2.026	ug/L	3.1126	-2.026	ug/L	3.1126	153.67%
Sr 421.552†	274.7	0.542	ug/L	0.0718	0.542	ug/L	0.0718	13.26%
Ti 334.940†	7.0	0.019	ug/L	0.0146	0.019	ug/L	0.0146	78.61%
Tl 190.801†	2.6	5.299	ug/L	0.6037	5.299	ug/L	0.6037	11.39%
V 290.880†	46.0	0.873	ug/L	0.4886	0.873	ug/L	0.4886	55.99%
Zn 206.200†	0.7	0.243	ug/L	0.8816	0.243	ug/L	0.8816	362.67%

Sequence No.: 17
Sample ID: SEQ-CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/8/2016 10:01:27 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCV

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: SEQ-CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4245876.1	100.1	%	0.51				0.51%
Sc Radial	464813.8	101.4	%	1.39				1.37%
Ag 328.068†	28750.4	250.1	ug/L	1.46	250.1	ug/L	1.46	0.58%
QC value within limits for Ag 328.068 Recovery = 100.04%								
Al 396.153†	86311.0	12680	ug/L	183.6	12680	ug/L	183.6	1.45%
QC value within limits for Al 396.153 Recovery = 101.48%								
As 193.696†	572.9	2601	ug/L	20.9	2601	ug/L	20.9	0.81%
QC value within limits for As 193.696 Recovery = 104.04%								
Ba 233.527†	10985.3	503.8	ug/L	3.25	503.8	ug/L	3.25	0.64%
QC value within limits for Ba 233.527 Recovery = 100.76%								
Be 313.107†	456846.9	506.4	ug/L	1.26	506.4	ug/L	1.26	0.25%
QC value within limits for Be 313.107 Recovery = 101.27%								
B 249.677†	85890.4	5044	ug/L	4.7	5044	ug/L	4.7	0.09%
QC value within limits for B 249.677 Recovery = 100.89%								
Ca 317.933†	47809.4	12400	ug/L	137.4	12400	ug/L	137.4	1.11%
QC value within limits for Ca 317.933 Recovery = 99.18%								
Cd 214.440†	3727.4	499.9	ug/L	1.87	499.9	ug/L	1.87	0.37%
QC value within limits for Cd 214.440 Recovery = 99.98%								
Co 228.616†	3911.3	499.7	ug/L	2.38	499.7	ug/L	2.38	0.48%
QC value within limits for Co 228.616 Recovery = 99.95%								
Cr 267.716†	30318.7	2544	ug/L	11.6	2544	ug/L	11.6	0.46%
QC value within limits for Cr 267.716 Recovery = 101.74%								
Cu 324.752†	252717.9	990.4	ug/L	8.67	990.4	ug/L	8.67	0.88%
QC value within limits for Cu 324.752 Recovery = 99.04%								
Fe 238.204†	1628.0	12180	ug/L	128.1	12180	ug/L	128.1	1.05%
QC value within limits for Fe 238.204 Recovery = 97.47%								
K 766.490†	49761.5	25400	ug/L	209.2	25400	ug/L	209.2	0.82%
QC value within limits for K 766.490 Recovery = 101.61%								
Mg 285.213†	73790.0	12490	ug/L	178.1	12490	ug/L	178.1	1.43%
QC value within limits for Mg 285.213 Recovery = 99.89%								
Mn 257.610†	277262.9	1014	ug/L	2.8	1014	ug/L	2.8	0.27%
QC value within limits for Mn 257.610 Recovery = 101.42%								
Mo 202.031†	584.8	490.9	ug/L	5.10	490.9	ug/L	5.10	1.04%
QC value within limits for Mo 202.031 Recovery = 98.17%								
Na 589.592†	81713.0	12730	ug/L	180.9	12730	ug/L	180.9	1.42%
QC value within limits for Na 589.592 Recovery = 101.88%								
Ni 231.604†	15026.6	2515	ug/L	1.5	2515	ug/L	1.5	0.06%
QC value within limits for Ni 231.604 Recovery = 100.61%								
Pb 220.353†	2511.5	2518	ug/L	6.4	2518	ug/L	6.4	0.26%
QC value within limits for Pb 220.353 Recovery = 100.71%								
Sb 206.836†	1215.7	2443	ug/L	15.2	2443	ug/L	15.2	0.62%
QC value within limits for Sb 206.836 Recovery = 97.73%								
Se 196.026†	491.2	2570	ug/L	35.6	2570	ug/L	35.6	1.38%
QC value within limits for Se 196.026 Recovery = 102.81%								
SiO2 251.603†	74514.9	9988	ug/L	25.1	9988	ug/L	25.1	0.25%
QC value within limits for SiO2 251.603 Recovery = 99.88%								
Sr 421.552†	258547.3	511.2	ug/L	7.35	511.2	ug/L	7.35	1.44%
QC value within limits for Sr 421.552 Recovery = 102.24%								
Ti 334.940†	188275.1	500.5	ug/L	2.05	500.5	ug/L	2.05	0.41%
QC value within limits for Ti 334.940 Recovery = 100.10%								
Tl 190.801†	1222.9	2512	ug/L	6.3	2512	ug/L	6.3	0.25%
QC value within limits for Tl 190.801 Recovery = 100.48%								
V 290.880†	52708.2	1012	ug/L	3.9	1012	ug/L	3.9	0.39%
QC value within limits for V 290.880 Recovery = 101.23%								
Zn 206.200†	7138.3	2557	ug/L	11.0	2557	ug/L	11.0	0.43%
QC value within limits for Zn 206.200 Recovery = 102.30%								

All analyte(s) passed QC.

Sequence No.: 18
Sample ID: SEQ-CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/8/2016 10:04:32 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCB

Analyte	Back Pressure	Flow
All	232.0 kPa	0.80 L/min

Mean Data: SEQ-CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4383560.3	103.4	%	1.87				1.81%
Sc Radial	462033.4	100.8	%	3.18				3.16%
Ag 328.068†	27.8	0.2446	ug/L	0.12931	0.2446	ug/L	0.12931	52.88%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	42.9	6.355	ug/L	3.8494	6.355	ug/L	3.8494	60.57%
QC value within limits for Al 396.153 Recovery = Not calculated								
As 193.696†	-1.0	-4.541	ug/L	6.0324	-4.541	ug/L	6.0324	132.84%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	6.0	0.2735	ug/L	0.09791	0.2735	ug/L	0.09791	35.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	268.4	0.2968	ug/L	0.07022	0.2968	ug/L	0.07022	23.66%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	538.1	31.60	ug/L	2.271	31.60	ug/L	2.271	7.19%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	44.7	11.58	ug/L	1.331	11.58	ug/L	1.331	11.49%
QC value within limits for Ca 317.933 Recovery = Not calculated								
Cd 214.440†	-0.9	-0.1225	ug/L	0.33944	-0.1225	ug/L	0.33944	276.99%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-2.0	-0.2600	ug/L	0.49246	-0.2600	ug/L	0.49246	189.43%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	10.8	0.9008	ug/L	0.21186	0.9008	ug/L	0.21186	23.52%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	20.8	0.0839	ug/L	0.37383	0.0839	ug/L	0.37383	445.56%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	5.0	36.95	ug/L	18.456	36.95	ug/L	18.456	49.94%
QC value within limits for Fe 238.204 Recovery = Not calculated								
K 766.490†	158.4	81.01	ug/L	18.002	81.01	ug/L	18.002	22.22%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	41.2	6.983	ug/L	0.7960	6.983	ug/L	0.7960	11.40%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	127.7	0.4671	ug/L	0.06259	0.4671	ug/L	0.06259	13.40%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-0.7	-0.5498	ug/L	1.32271	-0.5498	ug/L	1.32271	240.59%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	43.2	6.742	ug/L	1.9679	6.742	ug/L	1.9679	29.19%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	1.2	0.1967	ug/L	0.36734	0.1967	ug/L	0.36734	186.78%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	13.8	13.75	ug/L	3.263	13.75	ug/L	3.263	23.73%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	0.7	1.303	ug/L	8.6248	1.303	ug/L	8.6248	662.06%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-3.4	-17.71	ug/L	20.165	-17.71	ug/L	20.165	113.89%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	-31.7	-4.233	ug/L	0.9373	-4.233	ug/L	0.9373	22.14%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	137.2	0.269	ug/L	0.0915	0.269	ug/L	0.0915	33.97%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	88.0	0.234	ug/L	0.0261	0.234	ug/L	0.0261	11.14%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	3.3	6.688	ug/L	5.9220	6.688	ug/L	5.9220	88.55%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	8.7	0.161	ug/L	0.7430	0.161	ug/L	0.7430	461.45%
QC value within limits for V 290.880 Recovery = Not calculated								
Zn 206.200†	4.7	1.691	ug/L	0.6563	1.691	ug/L	0.6563	38.82%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 19
Sample ID: C161021-11
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 36
Date Collected: 12/8/2016 10:07:35 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-11

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: C161021-11

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4192068.4	98.85	%	0.508				0.51%
Sc Radial	460969.8	100.5	%	0.67				0.66%
Ag 328.068†	24.3	0.7330	ug/L	0.19763	0.7330	ug/L	0.19763	26.96%
Al 396.153†	55453.4	8110	ug/L	104.3	8110	ug/L	104.3	1.29%
As 193.696†	-13.6	-8.553	ug/L	10.4200	-8.553	ug/L	10.4200	121.83%
Ba 233.527†	195.9	9.022	ug/L	0.0756	9.022	ug/L	0.0756	0.84%
Be 313.107†	1533.6	1.391	ug/L	0.0374	1.391	ug/L	0.0374	2.69%
B 249.677†	75.3	4.425	ug/L	0.7177	4.425	ug/L	0.7177	16.22%
Ca 317.933†	645317.6	167200	ug/L	2765.3	167200	ug/L	2765.3	1.65%
Cd 214.440†	40.0	5.997	ug/L	0.2857	5.997	ug/L	0.2857	4.76%
Co 228.616†	352.1	45.20	ug/L	0.404	45.20	ug/L	0.404	0.89%
Cr 267.716†	7.2	1.220	ug/L	0.3722	1.220	ug/L	0.3722	30.50%
Cu 324.752†	103566.5	406.9	ug/L	0.83	406.9	ug/L	0.83	0.20%
Fe 238.204†	3363.4	25070	ug/L	238.7	25070	ug/L	238.7	0.95%
K 766.490†	3871.2	1837	ug/L	6.6	1837	ug/L	6.6	0.36%
Mg 285.213†	110087.8	18630	ug/L	228.1	18630	ug/L	228.1	1.22%
Mn 257.610†	1071877.4	3920	ug/L	11.8	3920	ug/L	11.8	0.30%
Mo 202.031†	10.9	-6.460	ug/L	2.8646	-6.460	ug/L	2.8646	44.34%
Na 589.592†	7965.0	1212	ug/L	12.9	1212	ug/L	12.9	1.07%
Ni 231.604†	178.7	16.75	ug/L	2.350	16.75	ug/L	2.350	14.03%
Pb 220.353†	13.5	27.98	ug/L	6.571	27.98	ug/L	6.571	23.48%
Sb 206.836†	1.4	0.8127	ug/L	6.24942	0.8127	ug/L	6.24942	768.96%
Se 196.026†	0.1	-11.60	ug/L	25.748	-11.60	ug/L	25.748	222.02%
SiO2 251.603†	124367.6	16650	ug/L	55.6	16650	ug/L	55.6	0.33%
Sr 421.552†	252846.2	498.6	ug/L	5.30	498.6	ug/L	5.30	1.06%
Ti 334.940†	1631.4	4.337	ug/L	0.0723	4.337	ug/L	0.0723	1.67%
Tl 190.801†	8.4	18.03	ug/L	4.133	18.03	ug/L	4.133	22.92%
V 290.880†	299.1	2.346	ug/L	0.9925	2.346	ug/L	0.9925	42.30%
Zn 206.200†	2868.9	1019	ug/L	7.8	1019	ug/L	7.8	0.76%

Sequence No.: 20
Sample ID: C161021-14
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 12/8/2016 10:10:41 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-14

Analyte	Back Pressure	Flow
All	231.0 kPa	0.80 L/min

Mean Data: C161021-14

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4124509.2	97.26	%	0.144				0.15%
Sc Radial	462843.8	100.9	%	0.40				0.39%
Ag 328.068†	18.9	0.4561	ug/L	0.09446	0.4561	ug/L	0.09446	20.71%
Al 396.153†	872.1	86.81	ug/L	3.995	86.81	ug/L	3.995	4.60%
As 193.696†	-7.1	3.437	ug/L	15.6684	3.437	ug/L	15.6684	455.84%
Ba 233.527†	329.2	15.06	ug/L	0.212	15.06	ug/L	0.212	1.41%
Be 313.107†	104.4	-0.2314	ug/L	0.05132	-0.2314	ug/L	0.05132	22.18%
B 249.677†	-34.1	-2.003	ug/L	0.1288	-2.003	ug/L	0.1288	6.43%
Ca 317.933†	694231.0	179900	ug/L	1434.7	179900	ug/L	1434.7	0.80%
Cd 214.440†	-4.5	-0.2062	ug/L	0.31921	-0.2062	ug/L	0.31921	154.79%
Co 228.616†	73.5	10.41	ug/L	0.654	10.41	ug/L	0.654	6.28%
Cr 267.716†	2.2	0.7429	ug/L	0.22650	0.7429	ug/L	0.22650	30.49%
Cu 324.752†	345.8	2.002	ug/L	0.1994	2.002	ug/L	0.1994	9.96%
Fe 238.204†	849.8	6349	ug/L	63.2	6349	ug/L	63.2	1.00%
K 766.490†	2945.6	1356	ug/L	25.8	1356	ug/L	25.8	1.90%
Mg 285.213†	66467.9	11240	ug/L	110.6	11240	ug/L	110.6	0.98%
Mn 257.610†	591100.4	2162	ug/L	5.6	2162	ug/L	5.6	0.26%
Mo 202.031†	16.6	-3.422	ug/L	1.7749	-3.422	ug/L	1.7749	51.86%
Na 589.592†	7976.1	1209	ug/L	21.7	1209	ug/L	21.7	1.79%
Ni 231.604†	55.3	-3.674	ug/L	0.6853	-3.674	ug/L	0.6853	18.65%
Pb 220.353†	-7.5	3.450	ug/L	2.6243	3.450	ug/L	2.6243	76.06%
Sb 206.836†	-0.3	5.286	ug/L	3.7468	5.286	ug/L	3.7468	70.89%
Se 196.026†	11.0	33.06	ug/L	8.897	33.06	ug/L	8.897	26.91%
SiO2 251.603†	61463.1	8229	ug/L	30.5	8229	ug/L	30.5	0.37%
Sr 421.552†	389895.6	771.2	ug/L	11.19	771.2	ug/L	11.19	1.45%
Ti 334.940†	7.5	0.020	ug/L	0.0635	0.020	ug/L	0.0635	317.77%
Tl 190.801†	6.1	16.87	ug/L	5.332	16.87	ug/L	5.332	31.61%
V 290.880†	264.9	2.404	ug/L	0.4437	2.404	ug/L	0.4437	18.46%
Zn 206.200†	1253.0	443.3	ug/L	1.80	443.3	ug/L	1.80	0.41%

Sequence No.: 21
Sample ID: C161021-17
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 38
Date Collected: 12/8/2016 10:13:48 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-17

Analyte	Back Pressure	Flow
All	232.0 kPa	0.80 L/min

Mean Data: C161021-17

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4367608.3	103.0	%	0.23				0.22%
Sc Radial	467558.1	102.0	%	1.09				1.07%
Ag 328.068†	18.0	0.1645	ug/L	0.06009	0.1645	ug/L	0.06009	36.52%
Al 396.153†	224.8	32.08	ug/L	3.566	32.08	ug/L	3.566	11.11%
As 193.696†	-2.7	-10.89	ug/L	6.543	-10.89	ug/L	6.543	60.10%
Ba 233.527†	184.5	8.450	ug/L	0.0494	8.450	ug/L	0.0494	0.58%
Be 313.107†	125.8	0.1301	ug/L	0.04243	0.1301	ug/L	0.04243	32.61%
B 249.677†	328.8	19.31	ug/L	0.285	19.31	ug/L	0.285	1.48%
Ca 317.933†	20639.5	5347	ug/L	64.3	5347	ug/L	64.3	1.20%
Cd 214.440†	-2.2	-0.2342	ug/L	0.24408	-0.2342	ug/L	0.24408	104.19%
Co 228.616†	-4.3	-0.4995	ug/L	0.25075	-0.4995	ug/L	0.25075	50.20%
Cr 267.716†	-0.0	0.0237	ug/L	0.11977	0.0237	ug/L	0.11977	505.19%
Cu 324.752†	28.1	0.1628	ug/L	0.10086	0.1628	ug/L	0.10086	61.96%
Fe 238.204†	14.1	105.5	ug/L	27.40	105.5	ug/L	27.40	25.96%
K 766.490†	155.1	75.34	ug/L	18.168	75.34	ug/L	18.168	24.11%
Mg 285.213†	2757.3	466.5	ug/L	7.86	466.5	ug/L	7.86	1.69%
Mn 257.610†	1578.2	5.784	ug/L	0.1502	5.784	ug/L	0.1502	2.60%
Mo 202.031†	0.9	0.0606	ug/L	3.05563	0.0606	ug/L	3.05563	>999.9%
Na 589.592†	3457.5	539.3	ug/L	2.02	539.3	ug/L	2.02	0.37%
Ni 231.604†	-6.5	-1.585	ug/L	1.4006	-1.585	ug/L	1.4006	88.39%
Pb 220.353†	6.1	6.451	ug/L	3.9547	6.451	ug/L	3.9547	61.30%
Sb 206.836†	-0.7	-1.541	ug/L	2.8850	-1.541	ug/L	2.8850	187.17%
Se 196.026†	3.3	16.10	ug/L	5.855	16.10	ug/L	5.855	36.37%
SiO2 251.603†	17369.8	2325	ug/L	9.8	2325	ug/L	9.8	0.42%
Sr 421.552†	14470.5	28.64	ug/L	0.152	28.64	ug/L	0.152	0.53%
Ti 334.940†	146.4	0.389	ug/L	0.0138	0.389	ug/L	0.0138	3.54%
Tl 190.801†	4.8	9.978	ug/L	4.7120	9.978	ug/L	4.7120	47.22%
V 290.880†	29.7	0.528	ug/L	0.7373	0.528	ug/L	0.7373	139.72%
Zn 206.200†	8.2	2.864	ug/L	1.1655	2.864	ug/L	1.1655	40.70%

Sequence No.: 22
Sample ID: C161021-20
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 12/8/2016 10:16:52 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-20

Analyte	Back Pressure	Flow
All	232.0 kPa	0.80 L/min

Mean Data: C161021-20

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4307047.7	101.6	%	0.52				0.51%
Sc Radial	466905.2	101.8	%	0.51				0.50%
Ag 328.068†	24.2	0.2324	ug/L	0.08624	0.2324	ug/L	0.08624	37.11%
Al 396.153†	153.3	19.84	ug/L	1.756	19.84	ug/L	1.756	8.85%
As 193.696†	0.7	6.544	ug/L	6.6240	6.544	ug/L	6.6240	101.23%
Ba 233.527†	757.0	34.67	ug/L	0.197	34.67	ug/L	0.197	0.57%
Be 313.107†	77.9	0.0591	ug/L	0.02391	0.0591	ug/L	0.02391	40.48%
B 249.677†	211.1	12.40	ug/L	0.086	12.40	ug/L	0.086	0.70%
Ca 317.933†	63483.1	16450	ug/L	145.4	16450	ug/L	145.4	0.88%
Cd 214.440†	-1.7	-0.1159	ug/L	0.09132	-0.1159	ug/L	0.09132	78.79%
Co 228.616†	-7.0	-0.7213	ug/L	0.57235	-0.7213	ug/L	0.57235	79.35%
Cr 267.716†	3.0	0.3251	ug/L	0.22861	0.3251	ug/L	0.22861	70.31%
Cu 324.752†	-10.6	0.0560	ug/L	0.15101	0.0560	ug/L	0.15101	269.84%
Fe 238.204†	2.8	22.68	ug/L	7.124	22.68	ug/L	7.124	31.41%
K 766.490†	504.8	244.9	ug/L	13.83	244.9	ug/L	13.83	5.65%
Mg 285.213†	4380.8	741.2	ug/L	10.48	741.2	ug/L	10.48	1.41%
Mn 257.610†	167.0	0.6614	ug/L	0.01593	0.6614	ug/L	0.01593	2.41%
Mo 202.031†	3.0	0.9289	ug/L	2.23606	0.9289	ug/L	2.23606	240.73%
Na 589.592†	5534.7	860.5	ug/L	9.65	860.5	ug/L	9.65	1.12%
Ni 231.604†	-0.0	-1.450	ug/L	1.1621	-1.450	ug/L	1.1621	80.14%
Pb 220.353†	-1.0	-0.0971	ug/L	2.24674	-0.0971	ug/L	2.24674	>999.9%
Sb 206.836†	-1.1	-1.801	ug/L	2.5071	-1.801	ug/L	2.5071	139.24%
Se 196.026†	1.8	6.415	ug/L	23.9855	6.415	ug/L	23.9855	373.92%
SiO2 251.603†	28382.0	3799	ug/L	11.4	3799	ug/L	11.4	0.30%
Sr 421.552†	88429.2	175.1	ug/L	1.88	175.1	ug/L	1.88	1.08%
Ti 334.940†	50.7	0.135	ug/L	0.0294	0.135	ug/L	0.0294	21.81%
Tl 190.801†	2.0	4.937	ug/L	8.4533	4.937	ug/L	8.4533	171.24%
V 290.880†	49.1	0.752	ug/L	0.4724	0.752	ug/L	0.4724	62.83%
Zn 206.200†	3.4	0.992	ug/L	0.5068	0.992	ug/L	0.5068	51.11%

Sequence No.: 23
Sample ID: C161021-23
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 12/8/2016 10:19:56 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-23

Analyte	Back Pressure	Flow
All	229.0 kPa	0.80 L/min

Mean Data: C161021-23

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4511471.9	106.4	%	0.32				0.30%
Sc Radial	495116.8	108.0	%	0.32				0.30%
Ag 328.068†	39.1	0.3793	ug/L	0.14747	0.3793	ug/L	0.14747	38.88%
Al 396.153†	129.7	15.23	ug/L	5.916	15.23	ug/L	5.916	38.86%
As 193.696†	-2.0	-4.348	ug/L	1.8249	-4.348	ug/L	1.8249	41.97%
Ba 233.527†	754.4	34.55	ug/L	0.133	34.55	ug/L	0.133	0.39%
Be 313.107†	131.5	0.1084	ug/L	0.02045	0.1084	ug/L	0.02045	18.87%
B 249.677†	224.4	13.18	ug/L	0.298	13.18	ug/L	0.298	2.26%
Ca 317.933†	85531.3	22160	ug/L	74.6	22160	ug/L	74.6	0.34%
Cd 214.440†	-3.1	-0.3015	ug/L	0.43030	-0.3015	ug/L	0.43030	142.70%
Co 228.616†	-4.8	-0.3875	ug/L	0.21133	-0.3875	ug/L	0.21133	54.54%
Cr 267.716†	0.9	0.1657	ug/L	0.20762	0.1657	ug/L	0.20762	125.30%
Cu 324.752†	-198.9	-0.6840	ug/L	0.11877	-0.6840	ug/L	0.11877	17.36%
Fe 238.204†	1.1	10.93	ug/L	14.415	10.93	ug/L	14.415	131.88%
K 766.490†	545.3	260.4	ug/L	16.23	260.4	ug/L	16.23	6.23%
Mg 285.213†	5084.5	860.2	ug/L	2.85	860.2	ug/L	2.85	0.33%
Mn 257.610†	95.0	0.4118	ug/L	0.03669	0.4118	ug/L	0.03669	8.91%
Mo 202.031†	5.3	2.394	ug/L	3.8895	2.394	ug/L	3.8895	162.44%
Na 589.592†	6800.8	1057	ug/L	11.1	1057	ug/L	11.1	1.05%
Ni 231.604†	-11.8	-3.854	ug/L	0.8437	-3.854	ug/L	0.8437	21.89%
Pb 220.353†	5.4	6.634	ug/L	3.3942	6.634	ug/L	3.3942	51.16%
Sb 206.836†	-3.6	-6.350	ug/L	7.2685	-6.350	ug/L	7.2685	114.46%
Se 196.026†	2.0	6.283	ug/L	10.5588	6.283	ug/L	10.5588	168.05%
SiO2 251.603†	23926.6	3203	ug/L	15.7	3203	ug/L	15.7	0.49%
Sr 421.552†	121049.1	239.7	ug/L	1.84	239.7	ug/L	1.84	0.77%
Ti 334.940†	-13.9	-0.037	ug/L	0.0399	-0.037	ug/L	0.0399	107.86%
Tl 190.801†	4.5	10.21	ug/L	6.279	10.21	ug/L	6.279	61.49%
V 290.880†	30.0	0.294	ug/L	0.8008	0.294	ug/L	0.8008	272.36%
Zn 206.200†	3.8	1.043	ug/L	0.4355	1.043	ug/L	0.4355	41.74%

User canceled analysis.

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Analysis Begun

Start Time: 12/8/2016 10:42:19 AM
Plasma On Time: 12/8/2016 10:41:41 AM
Logged In Analyst: esat
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N3082602Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\2016\A-128 Bonita Seeps Springs\A-128_
Batch ID: 1611171
Results Data Set: A128_1612038_161208
Results Library: C:\pe\Administrator\Results\Results.mdb

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Sequence No.: 24
Autosampler Location: 41
Sample ID: C161021-26
Date Collected: 12/8/2016 10:42:19 AM
Analyst: S. VanOvermeiren
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Nebulizer Parameters: C161021-26

Analyte	Back Pressure	Flow
All	228.0 kPa	0.80 L/min

Mean Data: C161021-26

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4551872.2	107.3	%	0.39				0.37%
Sc Radial	509871.7	111.2	%	0.84				0.75%
Ag 328.068†	66.5	0.6162	ug/L	0.16002	0.6162	ug/L	0.16002	25.97%
Al 396.153†	89.2	9.303	ug/L	1.7520	9.303	ug/L	1.7520	18.83%
As 193.696†	0.4	6.186	ug/L	4.3512	6.186	ug/L	4.3512	70.34%
Ba 233.527†	743.4	34.05	ug/L	0.102	34.05	ug/L	0.102	0.30%
Be 313.107†	37.3	0.0052	ug/L	0.00139	0.0052	ug/L	0.00139	26.66%
B 249.677†	170.5	10.01	ug/L	0.401	10.01	ug/L	0.401	4.01%
Ca 317.933†	83855.3	21730	ug/L	71.1	21730	ug/L	71.1	0.33%
Cd 214.440†	0.0	0.1179	ug/L	0.16021	0.1179	ug/L	0.16021	135.89%
Co 228.616†	-3.8	-0.2673	ug/L	0.36352	-0.2673	ug/L	0.36352	135.98%
Cr 267.716†	-1.6	0.0048	ug/L	0.17484	0.0048	ug/L	0.17484	>999.9%
Cu 324.752†	154.8	0.6949	ug/L	0.33510	0.6949	ug/L	0.33510	48.22%
Fe 238.204†	-2.2	-14.18	ug/L	11.796	-14.18	ug/L	11.796	83.21%
K 766.490†	530.0	252.9	ug/L	12.70	252.9	ug/L	12.70	5.02%
Mg 285.213†	4988.9	844.1	ug/L	6.03	844.1	ug/L	6.03	0.71%
Mn 257.610†	66.9	0.3082	ug/L	0.01447	0.3082	ug/L	0.01447	4.69%
Mo 202.031†	7.3	4.113	ug/L	1.7957	4.113	ug/L	1.7957	43.66%
Na 589.592†	6655.0	1034	ug/L	4.4	1034	ug/L	4.4	0.42%
Ni 231.604†	-23.5	-5.796	ug/L	0.4212	-5.796	ug/L	0.4212	7.27%
Pb 220.353†	4.0	5.229	ug/L	3.6251	5.229	ug/L	3.6251	69.33%
Sb 206.836†	-2.4	-3.740	ug/L	1.8576	-3.740	ug/L	1.8576	49.67%
Se 196.026†	0.4	-2.048	ug/L	10.8991	-2.048	ug/L	10.8991	532.25%
SiO2 251.603†	23711.8	3174	ug/L	10.6	3174	ug/L	10.6	0.33%
Sr 421.552†	120501.9	238.6	ug/L	0.83	238.6	ug/L	0.83	0.35%
Ti 334.940†	-17.3	-0.046	ug/L	0.0246	-0.046	ug/L	0.0246	53.55%
Tl 190.801†	3.6	8.503	ug/L	9.1342	8.503	ug/L	9.1342	107.43%
V 290.880†	248.8	4.489	ug/L	0.1837	4.489	ug/L	0.1837	4.09%
Zn 206.200†	4.6	1.350	ug/L	1.1469	1.350	ug/L	1.1469	84.93%

Sequence No.: 25
Sample ID: C161021-29
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 12/8/2016 10:45:23 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-29

Analyte	Back Pressure	Flow
All	227.0 kPa	0.80 L/min

User canceled analysis.

Analysis Begun

Start Time: 12/8/2016 10:48:36 AM
Logged In Analyst: esat
Spectrometer Model: Optima 4300 DV, S/N 077N3082602Autosampler Model: AS-93plus

Plasma On Time: 12/8/2016 10:41:41 AM
Technique: ICP Continuous

Sample Information File: C:\pe\Administrator\Sample Information\2016\A-128 Bonita Seeps Springs\A-128_
Batch ID: 1611171
Results Data Set: A128_1612038_161208
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 25
Sample ID: C161021-29
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 12/8/2016 10:48:36 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-29

Analyte	Back Pressure	Flow
All	226.0 kPa	0.80 L/min

Mean Data: C161021-29

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4486785.3	105.8	%	0.42				0.40%
Sc Radial	490829.2	107.0	%	1.51				1.41%
Ag 328.068†	46.1	0.4588	ug/L	0.08619	0.4588	ug/L	0.08619	18.79%
Al 396.153†	265.5	33.28	ug/L	1.285	33.28	ug/L	1.285	3.86%
As 193.696†	0.1	4.911	ug/L	9.5529	4.911	ug/L	9.5529	194.53%
Ba 233.527†	318.6	14.59	ug/L	0.109	14.59	ug/L	0.109	0.75%
Be 313.107†	38.3	-0.0046	ug/L	0.02382	-0.0046	ug/L	0.02382	517.53%
B 249.677†	177.5	10.42	ug/L	0.111	10.42	ug/L	0.111	1.07%
Ca 317.933†	97932.9	25370	ug/L	238.9	25370	ug/L	238.9	0.94%
Cd 214.440†	-0.6	0.0157	ug/L	0.12191	0.0157	ug/L	0.12191	778.41%
Co 228.616†	-1.3	0.0469	ug/L	0.31348	0.0469	ug/L	0.31348	668.87%
Cr 267.716†	0.7	0.1911	ug/L	0.33984	0.1911	ug/L	0.33984	177.88%
Cu 324.752†	341.1	1.392	ug/L	0.0799	1.392	ug/L	0.0799	5.74%
Fe 238.204†	4.4	35.41	ug/L	4.727	35.41	ug/L	4.727	13.35%
K 766.490†	682.7	328.6	ug/L	27.59	328.6	ug/L	27.59	8.40%
Mg 285.213†	8516.2	1441	ug/L	11.8	1441	ug/L	11.8	0.82%
Mn 257.610†	308.1	1.187	ug/L	0.0120	1.187	ug/L	0.0120	1.01%
Mo 202.031†	7.7	3.932	ug/L	1.0134	3.932	ug/L	1.0134	25.77%
Na 589.592†	3143.1	485.6	ug/L	3.27	485.6	ug/L	3.27	0.67%
Ni 231.604†	-21.2	-5.476	ug/L	0.2201	-5.476	ug/L	0.2201	4.02%
Pb 220.353†	3.7	5.099	ug/L	3.3069	5.099	ug/L	3.3069	64.85%
Sb 206.836†	-2.9	-5.038	ug/L	5.5874	-5.038	ug/L	5.5874	110.90%
Se 196.026†	7.6	35.27	ug/L	24.105	35.27	ug/L	24.105	68.35%
SiO2 251.603†	24763.9	3315	ug/L	11.3	3315	ug/L	11.3	0.34%
Sr 421.552†	69897.5	138.3	ug/L	1.25	138.3	ug/L	1.25	0.91%
Ti 334.940†	118.7	0.316	ug/L	0.0255	0.316	ug/L	0.0255	8.09%
Tl 190.801†	4.5	10.27	ug/L	7.010	10.27	ug/L	7.010	68.29%
V 290.880†	219.0	3.918	ug/L	0.1120	3.918	ug/L	0.1120	2.86%
Zn 206.200†	23.4	7.997	ug/L	0.6934	7.997	ug/L	0.6934	8.67%

Sequence No.: 26
Sample ID: C161021-32
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:
User canceled analysis.

Autosampler Location: 43
Date Collected: 12/8/2016 10:51:40 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Analysis Begun

Start Time: 12/8/2016 10:58:32 AM
Logged In Analyst: esat
Spectrometer Model: Optima 4300 DV, S/N 077N3082602

Plasma On Time: 12/8/2016 10:56:12 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\2016\A-128 Bonita Seeps Springs\A-128_
Batch ID: 1611171
Results Data Set: A128_1612038_161208
Results Library: C:\pe\Administrator\Results\Results.mdb

Sequence No.: 26
Sample ID: C161021-32
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 12/8/2016 10:58:32 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-32

Analyte	Back Pressure	Flow
All	225.0 kPa	0.80 L/min

Mean Data: C161021-32

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4613413.9	108.8	%	0.37				0.34%
Sc Radial	477362.8	104.1	%	1.27				1.22%
Ag 328.068†	62.5	0.5899	ug/L	0.06172	0.5899	ug/L	0.06172	10.46%
Al 396.153†	242.0	32.28	ug/L	0.482	32.28	ug/L	0.482	1.49%
As 193.696†	0.1	2.928	ug/L	12.5018	2.928	ug/L	12.5018	427.04%
Ba 233.527†	158.7	7.274	ug/L	0.0586	7.274	ug/L	0.0586	0.81%
Be 313.107†	82.7	0.0666	ug/L	0.01520	0.0666	ug/L	0.01520	22.82%
B 249.677†	231.4	13.59	ug/L	0.493	13.59	ug/L	0.493	3.63%
Ca 317.933†	50513.1	13090	ug/L	141.2	13090	ug/L	141.2	1.08%
Cd 214.440†	1.4	0.2096	ug/L	0.11675	0.2096	ug/L	0.11675	55.70%
Co 228.616†	0.1	0.1044	ug/L	0.45752	0.1044	ug/L	0.45752	438.31%
Cr 267.716†	1.9	0.3204	ug/L	0.22967	0.3204	ug/L	0.22967	71.69%
Cu 324.752†	1325.8	5.170	ug/L	0.3686	5.170	ug/L	0.3686	7.13%
Fe 238.204†	7.3	55.22	ug/L	6.896	55.22	ug/L	6.896	12.49%
K 766.490†	991.7	495.8	ug/L	13.04	495.8	ug/L	13.04	2.63%
Mg 285.213†	5814.8	983.5	ug/L	9.62	983.5	ug/L	9.62	0.98%
Mn 257.610†	1091.6	4.017	ug/L	0.0371	4.017	ug/L	0.0371	0.92%
Mo 202.031†	4.9	2.776	ug/L	0.6258	2.776	ug/L	0.6258	22.55%
Na 589.592†	1614.0	249.6	ug/L	7.83	249.6	ug/L	7.83	3.14%
Ni 231.604†	-29.5	-5.883	ug/L	0.8243	-5.883	ug/L	0.8243	14.01%
Pb 220.353†	8.4	9.201	ug/L	3.8663	9.201	ug/L	3.8663	42.02%
Sb 206.836†	-3.5	-6.530	ug/L	3.5145	-6.530	ug/L	3.5145	53.82%
Se 196.026†	-1.8	-11.51	ug/L	17.042	-11.51	ug/L	17.042	148.02%
SiO2 251.603†	1134.6	152.1	ug/L	0.52	152.1	ug/L	0.52	0.34%
Sr 421.552†	24267.4	48.01	ug/L	0.874	48.01	ug/L	0.874	1.82%
Ti 334.940†	105.6	0.281	ug/L	0.0043	0.281	ug/L	0.0043	1.52%
Tl 190.801†	3.3	7.253	ug/L	5.4474	7.253	ug/L	5.4474	75.10%
V 290.880†	601.2	11.33	ug/L	0.253	11.33	ug/L	0.253	2.23%
Zn 206.200†	6.0	1.966	ug/L	1.2390	1.966	ug/L	1.2390	63.01%

User canceled analysis.

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Analysis Begun

Start Time: 12/8/2016 11:16:50 AM
Plasma On Time: 12/8/2016 11:16:37 AM
Logged In Analyst: esat
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N3082602Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\2016\A-128 Bonita Seeps Springs\A-128_1
Batch ID: 1611171
Results Data Set: A128_1612038_161208
Results Library: C:\pe\Administrator\Results\Results.mdb

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Sequence No.: 27
Autosampler Location: 44
Sample ID: C161021-35
Date Collected: 12/8/2016 11:16:50 AM
Analyst: S. VanOvermeiren
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Nebulizer Parameters: C161021-35

Analyte	Back Pressure	Flow
All	280.0 kPa	0.80 L/min

Mean Data: C161021-35

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4216801.6	99.44	%	0.416				0.42%
Sc Radial	392955.9	85.70	%	2.034				2.37%
Ag 328.068†	3.8	0.0279	ug/L	0.10502	0.0279	ug/L	0.10502	376.16%
Al 396.153†	17.6	2.755	ug/L	1.4813	2.755	ug/L	1.4813	53.78%
As 193.696†	-1.5	-6.271	ug/L	11.8195	-6.271	ug/L	11.8195	188.49%
Ba 233.527†	2.1	0.1125	ug/L	0.03013	0.1125	ug/L	0.03013	26.77%
Be 313.107†	88.5	0.0975	ug/L	0.00481	0.0975	ug/L	0.00481	4.94%
B 249.677†	781.7	45.91	ug/L	0.165	45.91	ug/L	0.165	0.36%
Ca 317.933†	281.1	73.04	ug/L	0.704	73.04	ug/L	0.704	0.96%
Cd 214.440†	0.4	0.0828	ug/L	0.25998	0.0828	ug/L	0.25998	313.99%
Co 228.616†	-7.4	-0.9352	ug/L	0.15431	-0.9352	ug/L	0.15431	16.50%
Cr 267.716†	0.1	0.1670	ug/L	0.12053	0.1670	ug/L	0.12053	72.16%
Cu 324.752†	1397.7	5.497	ug/L	0.0896	5.497	ug/L	0.0896	1.63%
Fe 238.204†	3.9	29.23	ug/L	26.703	29.23	ug/L	26.703	91.34%
K 766.490†	148.7	76.63	ug/L	6.956	76.63	ug/L	6.956	9.08%
Mg 285.213†	4.4	0.8455	ug/L	0.98915	0.8455	ug/L	0.98915	116.99%
Mn 257.610†	35.3	0.1330	ug/L	0.02327	0.1330	ug/L	0.02327	17.49%
Mo 202.031†	0.0	-0.0504	ug/L	0.35396	-0.0504	ug/L	0.35396	702.10%
Na 589.592†	247.9	38.68	ug/L	7.143	38.68	ug/L	7.143	18.47%
Ni 231.604†	-1.6	-0.3345	ug/L	1.06258	-0.3345	ug/L	1.06258	317.70%
Pb 220.353†	4.7	4.678	ug/L	3.7615	4.678	ug/L	3.7615	80.42%
Sb 206.836†	1.2	2.228	ug/L	3.1271	2.228	ug/L	3.1271	140.37%
Se 196.026†	0.8	3.962	ug/L	22.6436	3.962	ug/L	22.6436	571.47%
SiO2 251.603†	12633.1	1691	ug/L	4.1	1691	ug/L	4.1	0.24%
Sr 421.552†	59.1	0.116	ug/L	0.0373	0.116	ug/L	0.0373	32.12%
Ti 334.940†	14.8	0.039	ug/L	0.0320	0.039	ug/L	0.0320	81.28%
Tl 190.801†	-1.3	-2.506	ug/L	3.9934	-2.506	ug/L	3.9934	159.38%
V 290.880†	755.4	14.47	ug/L	0.143	14.47	ug/L	0.143	0.99%
Zn 206.200†	3.2	1.147	ug/L	0.5855	1.147	ug/L	0.5855	51.04%

Sequence No.: 28
Sample ID: C161021-38
Analyst: S. VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 45
Date Collected: 12/8/2016 11:19:53 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C161021-38

Analyte	Back Pressure	Flow
All	279.0 kPa	0.80 L/min

Mean Data: C161021-38

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4086900.5	96.37	%	0.640				0.66%
Sc Radial	388442.9	84.71	%	0.704				0.83%
Ag 328.068†	-19.4	-0.0691	ug/L	0.04475	-0.0691	ug/L	0.04475	64.71%
Al 396.153†	251.8	28.02	ug/L	5.423	28.02	ug/L	5.423	19.35%
As 193.696†	-4.6	-9.460	ug/L	1.4561	-9.460	ug/L	1.4561	15.39%
Ba 233.527†	388.7	17.83	ug/L	0.279	17.83	ug/L	0.279	1.57%
Be 313.107†	123.5	0.0522	ug/L	0.04310	0.0522	ug/L	0.04310	82.54%
B 249.677†	-17.7	-1.040	ug/L	0.2297	-1.040	ug/L	0.2297	22.08%
Ca 317.933†	193608.4	50160	ug/L	641.7	50160	ug/L	641.7	1.28%
Cd 214.440†	-6.0	-0.5787	ug/L	0.46891	-0.5787	ug/L	0.46891	81.03%
Co 228.616†	-3.8	-0.0267	ug/L	0.04308	-0.0267	ug/L	0.04308	161.06%
Cr 267.716†	-2.3	0.1410	ug/L	0.13127	0.1410	ug/L	0.13127	93.11%
Cu 324.752†	1588.1	6.364	ug/L	0.1939	6.364	ug/L	0.1939	3.05%
Fe 238.204†	7.2	59.88	ug/L	24.411	59.88	ug/L	24.411	40.77%
K 766.490†	926.1	430.4	ug/L	16.50	430.4	ug/L	16.50	3.83%
Mg 285.213†	16220.1	2744	ug/L	32.5	2744	ug/L	32.5	1.18%
Mn 257.610†	847.3	3.247	ug/L	0.0280	3.247	ug/L	0.0280	0.86%
Mo 202.031†	4.6	-0.7922	ug/L	1.93223	-0.7922	ug/L	1.93223	243.92%
Na 589.592†	8898.1	1377	ug/L	13.0	1377	ug/L	13.0	0.95%
Ni 231.604†	14.3	-1.681	ug/L	1.6736	-1.681	ug/L	1.6736	99.55%
Pb 220.353†	1.9	4.689	ug/L	1.8886	4.689	ug/L	1.8886	40.28%
Sb 206.836†	-0.6	1.295	ug/L	2.7765	1.295	ug/L	2.7765	214.35%
Se 196.026†	9.9	42.68	ug/L	14.034	42.68	ug/L	14.034	32.88%
SiO2 251.603†	36861.8	4935	ug/L	35.2	4935	ug/L	35.2	0.71%
Sr 421.552†	258196.0	511.2	ug/L	6.77	511.2	ug/L	6.77	1.32%
Ti 334.940†	-15.4	-0.041	ug/L	0.0336	-0.041	ug/L	0.0336	82.05%
Tl 190.801†	-1.2	0.207	ug/L	6.3882	0.207	ug/L	6.3882	>999.9%
V 290.880†	751.7	13.69	ug/L	0.953	13.69	ug/L	0.953	6.96%
Zn 206.200†	103.9	36.28	ug/L	1.171	36.28	ug/L	1.171	3.23%

Sequence No.: 29
Sample ID: SEQ-CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/8/2016 11:22:58 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCV

Analyte	Back Pressure	Flow
All	279.0 kPa	0.80 L/min

Mean Data: SEQ-CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4102187.1	96.73	%	0.378				0.39%
Sc Radial	384888.3	83.94	%	1.323				1.58%
Ag 328.068†	27987.9	243.5	ug/L	1.71	243.5	ug/L	1.71	0.70%
QC value within limits for Ag 328.068 Recovery = 97.40%								
Al 396.153†	89991.3	13220	ug/L	95.8	13220	ug/L	95.8	0.72%
QC value within limits for Al 396.153 Recovery = 105.80%								
As 193.696†	501.5	2287	ug/L	7.8	2287	ug/L	7.8	0.34%
QC value within limits for As 193.696 Recovery = 91.47%								
Ba 233.527†	11236.0	515.3	ug/L	6.64	515.3	ug/L	6.64	1.29%
QC value within limits for Ba 233.527 Recovery = 103.06%								
Be 313.107†	433966.1	481.1	ug/L	0.38	481.1	ug/L	0.38	0.08%
QC value within limits for Be 313.107 Recovery = 96.21%								
B 249.677†	75696.0	4446	ug/L	37.2	4446	ug/L	37.2	0.84%
QC value less than the lower limit for B 249.677 Recovery = 88.91%								
Ca 317.933†	48545.0	12590	ug/L	116.7	12590	ug/L	116.7	0.93%
QC value within limits for Ca 317.933 Recovery = 100.70%								
Cd 214.440†	3659.8	490.8	ug/L	4.96	490.8	ug/L	4.96	1.01%
QC value within limits for Cd 214.440 Recovery = 98.16%								
Co 228.616†	3807.3	486.4	ug/L	4.41	486.4	ug/L	4.41	0.91%
QC value within limits for Co 228.616 Recovery = 97.28%								
Cr 267.716†	30917.0	2594	ug/L	15.7	2594	ug/L	15.7	0.61%
QC value within limits for Cr 267.716 Recovery = 103.75%								
Cu 324.752†	235433.5	922.8	ug/L	9.87	922.8	ug/L	9.87	1.07%
QC value within limits for Cu 324.752 Recovery = 92.28%								
Fe 238.204†	1623.6	12150	ug/L	248.2	12150	ug/L	248.2	2.04%
QC value within limits for Fe 238.204 Recovery = 97.18%								
K 766.490†	50758.8	25910	ug/L	167.5	25910	ug/L	167.5	0.65%
QC value within limits for K 766.490 Recovery = 103.65%								
Mg 285.213†	74288.8	12570	ug/L	98.5	12570	ug/L	98.5	0.78%
QC value within limits for Mg 285.213 Recovery = 100.57%								
Mn 257.610†	272265.0	995.9	ug/L	8.30	995.9	ug/L	8.30	0.83%
QC value within limits for Mn 257.610 Recovery = 99.59%								
Mo 202.031†	583.4	489.8	ug/L	4.15	489.8	ug/L	4.15	0.85%
QC value within limits for Mo 202.031 Recovery = 97.95%								
Na 589.592†	80125.9	12490	ug/L	51.5	12490	ug/L	51.5	0.41%
QC value within limits for Na 589.592 Recovery = 99.90%								
Ni 231.604†	14410.3	2412	ug/L	22.5	2412	ug/L	22.5	0.93%
QC value within limits for Ni 231.604 Recovery = 96.47%								
Pb 220.353†	2356.8	2363	ug/L	13.1	2363	ug/L	13.1	0.55%
QC value within limits for Pb 220.353 Recovery = 94.53%								
Sb 206.836†	1154.9	2318	ug/L	10.3	2318	ug/L	10.3	0.44%
QC value within limits for Sb 206.836 Recovery = 92.73%								
Se 196.026†	449.6	2354	ug/L	49.4	2354	ug/L	49.4	2.10%
QC value within limits for Se 196.026 Recovery = 94.17%								
SiO2 251.603†	69318.3	9292	ug/L	87.2	9292	ug/L	87.2	0.94%
QC value within limits for SiO2 251.603 Recovery = 92.92%								
Sr 421.552†	250615.3	495.5	ug/L	2.61	495.5	ug/L	2.61	0.53%
QC value within limits for Sr 421.552 Recovery = 99.10%								
Ti 334.940†	186617.8	496.1	ug/L	4.45	496.1	ug/L	4.45	0.90%
QC value within limits for Ti 334.940 Recovery = 99.22%								
Tl 190.801†	1158.8	2381	ug/L	8.2	2381	ug/L	8.2	0.35%
QC value within limits for Tl 190.801 Recovery = 95.25%								
V 290.880†	53457.2	1027	ug/L	9.2	1027	ug/L	9.2	0.89%
QC value within limits for V 290.880 Recovery = 102.66%								
Zn 206.200†	6750.2	2420	ug/L	29.4	2420	ug/L	29.4	1.21%
QC value within limits for Zn 206.200 Recovery = 96.79%								

QC Failed. Continue with analysis.

Sequence No.: 30
Sample ID: SEQ-CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/8/2016 11:26:02 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCB

Analyte	Back Pressure	Flow
All	279.0 kPa	0.80 L/min

Mean Data: SEQ-CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	4001081.9	94.35	%	0.820				0.87%
Sc Radial	378466.3	82.54	%	0.343				0.42%
Ag 328.068†	-2.3	-0.0141	ug/L	0.04184	-0.0141	ug/L	0.04184	297.15%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	-3.9	-0.4852	ug/L	0.90490	-0.4852	ug/L	0.90490	186.50%
QC value within limits for Al 396.153 Recovery = Not calculated								
As 193.696†	-2.4	-10.00	ug/L	5.909	-10.00	ug/L	5.909	59.07%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	-0.1	0.0104	ug/L	0.14110	0.0104	ug/L	0.14110	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	78.9	0.0872	ug/L	0.02503	0.0872	ug/L	0.02503	28.69%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	702.2	41.24	ug/L	3.177	41.24	ug/L	3.177	7.70%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	2.0	0.5191	ug/L	1.35690	0.5191	ug/L	1.35690	261.38%
QC value within limits for Ca 317.933 Recovery = Not calculated								
Cd 214.440†	-2.0	-0.2642	ug/L	0.24743	-0.2642	ug/L	0.24743	93.64%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-0.5	-0.0612	ug/L	0.21894	-0.0612	ug/L	0.21894	357.57%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	1.2	0.2559	ug/L	0.07985	0.2559	ug/L	0.07985	31.20%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	1529.3	5.981	ug/L	0.0939	5.981	ug/L	0.0939	1.57%
QC value greater than the upper limit for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	7.9	58.90	ug/L	14.995	58.90	ug/L	14.995	25.46%
QC value within limits for Fe 238.204 Recovery = Not calculated								
K 766.490†	201.2	102.9	ug/L	17.06	102.9	ug/L	17.06	16.58%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	5.4	0.9587	ug/L	0.96333	0.9587	ug/L	0.96333	100.48%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	22.4	0.0823	ug/L	0.01382	0.0823	ug/L	0.01382	16.79%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-0.7	-0.6367	ug/L	1.93665	-0.6367	ug/L	1.93665	304.17%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	53.6	8.326	ug/L	1.9322	8.326	ug/L	1.9322	23.21%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	8.5	1.424	ug/L	0.9419	1.424	ug/L	0.9419	66.15%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	6.1	6.051	ug/L	1.7945	6.051	ug/L	1.7945	29.65%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	2.0	4.130	ug/L	4.9053	4.130	ug/L	4.9053	118.76%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	0.4	1.964	ug/L	33.8335	1.964	ug/L	33.8335	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	-43.7	-5.766	ug/L	1.1212	-5.766	ug/L	1.1212	19.44%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	51.2	0.098	ug/L	0.0199	0.098	ug/L	0.0199	20.36%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	47.5	0.126	ug/L	0.0180	0.126	ug/L	0.0180	14.27%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	1.5	3.280	ug/L	7.4224	3.280	ug/L	7.4224	226.27%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	760.2	14.53	ug/L	0.249	14.53	ug/L	0.249	1.72%
QC value within limits for V 290.880 Recovery = Not calculated								
Zn 206.200†	3.8	1.354	ug/L	1.1900	1.354	ug/L	1.1900	87.90%
QC value within limits for Zn 206.200 Recovery = Not calculated								

QC Failed. Continue with analysis.

Perkin Elmer DRC-II ICP-MS

Project(s): Bonita Peak oct 2016 Date: 12 / 08 / 2016

Work Order(s): C161021 TDF: A-128 Analyst: S. Van Overmeren

Batch Preparation Information

Digest / Prep.	Matrix	Batch ID
TR / Total / Diss.	Water / Soil / Other	1612039/1611171

Data Storage

Data File: X:/Metals Data Files/ A-128_1612039_DISSA_120816

Standard Information

Calibration Std. #1: C601051
Prepped By: SV Date: 06/15/16

Calibration Std. #2: C601052
Prepped By: SV Date: 10/17/16

Calibration Std. #3: C601053
Prepped By: SV Date: 11/15/16

SCV **LIMS: C601057**
Prepped By: SV Date: 07/25/16

CRDL: 1:100 of C601055 **LIMS: C601056**
Prepped By: SV Date: 12/08/16

ICV/CCV **LIMS: C601060**
Prepped By: SV Date: 10/27/16

ICSA LIMS: C601058

ICSAB LIMS: C601059

Spike Information

Dissolved Spikes

Sample ID: C161021-03, -06
Sample ID: —
Sample Vol: 10 mL

Spike
LIMS ID: C601062 100 uL

Total / Total Rec. Spikes

Sample ID: C161021-02, -05
Sample Vol: 50 mL
PSS2007-220: 500 uL
WW-LFS1 Exp: 01-1-2017
PSS2007-221: 500 uL
WW-LFS2 Exp: 01-1-2017

Tune criteria passed? Yes / No

Comments / Maintenance New pump tubing? Y / N Cleaned cones? Y / N

Reportable Analytes

Ag As Ba Be Cd Co Cr Cu Mn Mo Ni Pb Sb Se Tl V Zn U Th

Sequence ID: 1612045/1612046

Lims Entry (Date / Init): 12/08/16 SV

TLF-06.03	SOP: QAQ-04.01	Eff. Date: 11/11/2013

ESAT Region 8

ICP-MS Data Review Form

Analyst / Bench Review – Level I

LIMS: C161021	TDF: A-128
Matrix: Water	Analysis: Dissolved / Tot. Rec. Metals

Method / Instrument QC Parameters				Analytical Batch / Sample Parameters	
☒ Yes ☐ No	ICV 90-110%	☒ Yes ☐ No	SCV 90-110%	☒ Yes ☐ No	Mth. Blk. (MB) / Prep. BLK (PB) ≤ ± PQL
☒ Yes ☐ No	ICB ≤ ± PQL	☒ Yes ☐ No	CRDL 70-130%	☒ Yes ☐ No	Blk. Spike (BS) 85-115% / LCS/SRM In Control
☒ Yes ☐ No	ICSA Spiked Analytes 80-120%			☒ Yes ☐ No	Laboratory Duplicate (DUP) Analyzed
☒ Yes ☐ No	ICSA Non-Spiked Analytes ≤ ± PQL			☒ Yes ☐ No	Serial Dilution (SRD) Analyzed
☒ Yes ☐ No	ICSAB Spiked Analytes 80-120%			☒ Yes ☐ No	MS Analyzed Every 10% of Samples 70-130%
☒ Yes ☐ No	CCBs ≤ ± PQL	☒ Yes ☐ No	CCVs 90-110%	☒ Yes ☐ No	Internal Standards 60-125%

Other data quality issues identified ☐ Yes ☒ No

Describe any anomaly or deficiency not indicated above in the space provided

LIMS Electronic Data Transfer

☒ Yes ☐ No	The instrument data file is uploaded to the X: drive	☒ Yes ☐ No	Instrument data are uploaded into the LIMS
☒ Yes ☐ No	All samples and QC data are present in LIMS	☒ Yes ☐ No	The analyte list for the sequence is complete
Analyst:		Date: 12/08/16	

Peer Review of Analytical Analysis – Level II

Method / Instrument QC Parameters				Analytical Batch / Sample Parameters	
☒ Yes ☐ No	ICV 90-110%	☒ Yes ☐ No	SCV 90-110%	☒ Yes ☐ No	Mth. Blk. (MB) / Prep. BLK (PB) ≤ ± PQL
☒ Yes ☐ No	ICB ≤ ± PQL	☒ Yes ☐ No	CRDL 70-130%	☒ Yes ☐ No	Blk. Spike (BS) 85-115% / LCS/SRM In Control
☒ Yes ☐ No	ICSA Spiked Analytes 80-120%			☒ Yes ☐ No	Laboratory Duplicate (DUP) Analyzed
☒ Yes ☐ No	ICSA Non-Spiked Analytes ≤ ± PQL			☒ Yes ☐ No	Serial Dilution (SRD) Analyzed
☒ Yes ☐ No	ICSAB Spiked Analytes 80-120%			☒ Yes ☐ No	MS Analyzed Every 10% of Samples 70-130%
☒ Yes ☐ No	CCBs ≤ ± PQL	☒ Yes ☐ No	CCVs 90-110%	☒ Yes ☐ No	Internal Standards 60-125%

Other data quality issues identified ☐ Yes ☒ No

Describe any anomaly or deficiency not indicated above in the space provided

LIMS Electronic Data Transfer

☒ Yes ☐ No	The instrument data file is uploaded to the X: drive	☒ Yes ☐ No	Instrument data are uploaded into the LIMS
☒ Yes ☐ No	All samples and QC data are present in LIMS	☒ Yes ☐ No	The analyte list for the sequence is complete
Peer Reviewer:		Date: 12/8/2016	

PREPARATION BENCH SHEET

1612039

TechLaw, Inc. - ESAT Region 8

Printed: 12/7/2016 1:01:17PM

Matrix: Water

Date Prepared: 12/07/16 12:59 By: SV

Prepared using: METALS - No Lab Prep Reqd

Lab Number	Analysis	EPA Tag ID	Initial (mL)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Source ID	QC Code	Extraction Comments
C161021-03 A	ICPMS Diss. Metals	8-C	50	50						SS71-SS-00-EPA	
C161021-06 A	ICPMS Diss. Metals	8-C	50	50						SS72-SS-00-EPA	
C161021-09 A	ICPMS Diss. Metals	8-C	50	50						SS73-SS-00-EPA	
C161021-12 A	ICPMS Diss. Metals	8-C	50	50						SS74-SS-00-EPA	
C161021-15 A	ICPMS Diss. Metals	8-C	50	50						SS75-SS-00-EPA	
C161021-18 A	ICPMS Diss. Metals	8-C	50	50						SS76-SS-00-EPA	
C161021-21 A	ICPMS Diss. Metals	8-C	50	50						SS77-SS-00-EPA	
C161021-24 A	ICPMS Diss. Metals	8-C	50	50						SS78-SS-00-EPA	
C161021-27 A	ICPMS Diss. Metals	8-C	50	50						SS78-SS-30-EPA	
C161021-30 A	ICPMS Diss. Metals	8-C	50	50						SS79-SS-00-EPA	
C161021-33 A	ICPMS Diss. Metals	8-C	50	50						SS80-SS-00-EPA	
C161021-36 A	ICPMS Diss. Metals	8-C	50	50						SS80-SS-90-EPA	
C161021-39 A	ICPMS Diss. Metals	8-C	50	50						SW81-SW-00-EPA	
1612039-BLK1	QC		50	50						Blank	
1612039-BS1	QC		10	10	C601062	100				LCS	
1612039-DUP1	QC		50	50					C161021-03	Duplicate	
1612039-MS1	QC		10	10	C601062	100			C161021-03	Matrix Spike	
1612039-MS2	QC		10	10	C601062	100			C161021-06	Matrix Spike	

HNO3 lot:1114090
HCl lot:4113083
Pipettors:
MET02-0100
MET04-0500
MET05-1000
MET07-9500
MET08-10000

12/08/16

Preparation Reviewed By Date

PREPARATION BENCH SHEET

1611171

TechLaw, Inc. - ESAT Region 8

Printed: 11/30/2016 1:39:59PM

Matrix: Water

Date Prepared: 11/30/16 13:38 By: SV

Prepared using: METALS - 200.2 - TR Metals

Lab Number	Analysis	EPA Tag ID	Initial (mL)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Source ID	QC Code	Extraction Comments
C161021-02 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS71-SS-00-EPA	
C161021-05 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS72-SS-00-EPA	
C161021-08 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS73-SS-00-EPA	
C161021-11 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS74-SS-00-EPA	
C161021-14 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS75-SS-00-EPA	
C161021-17 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS76-SS-00-EPA	
C161021-20 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS77-SS-00-EPA	
C161021-23 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS78-SS-00-EPA	
C161021-26 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS78-SS-30-EPA	
C161021-29 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS79-SS-00-EPA	
C161021-32 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS80-SS-00-EPA	
C161021-35 A	ICPMS Tot. Rec. Metals	8-B	50	50						SS80-SS-90-EPA	
C161021-38 A	ICPMS Tot. Rec. Metals	8-B	50	50						SW81-SW-00-EPA	
C161021-02 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS71-SS-00-EPA	
C161021-05 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS72-SS-00-EPA	
C161021-08 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS73-SS-00-EPA	
C161021-11 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS74-SS-00-EPA	
C161021-14 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS75-SS-00-EPA	
C161021-17 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS76-SS-00-EPA	
C161021-20 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS77-SS-00-EPA	
C161021-23 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS78-SS-00-EPA	
C161021-26 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS78-SS-30-EPA	
C161021-29 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS79-SS-00-EPA	
C161021-32 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS80-SS-00-EPA	

12/03/16

Preparation Reviewed By Date

PREPARATION BENCH SHEET

1611171

TechLaw, Inc. - ESAT Region 8

Printed: 11/30/2016 1:39:59PM

Matrix: Water

Date Prepared: 11/30/16 13:38 By: SV

Prepared using: METALS - 200.2 - TR Metals

Lab Number	Analysis	EPA Tag ID	Initial (mL)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Source ID	QC Code	Extraction Comments
C161021-35 A	ICPOE Tot. Rec. Metals	8-B	50	50						SS80-SS-90-EPA	
C161021-38 A	ICPOE Tot. Rec. Metals	8-B	50	50						SW81-SW-00-EPA	
1611171-BLK1	QC		50	50						Blank	
1611171-BLK2	QC		50	50						Blank	
1611171-DUP1	QC		50	50					C161021-02	Duplicate	
1611171-DUP2	QC		50	50					C161021-02	Duplicate	
1611171-MS1	QC		50	50	C601034	500	C601035	500	C161021-02	Matrix Spike	
1611171-MS2	QC		50	50	C601034	500	C601035	500	C161021-02	Matrix Spike	
1611171-MS3	QC		50	50	C601034	500	C601035	500	C161021-05	Matrix Spike	
1611171-MS4	QC		50	50	C601034	500	C601035	500	C161021-05	Matrix Spike	
1611171-SRM1	QC		50	50	C601045	500	C601046	500		Reference	
1611171-SRM2	QC		50	50	C601045	500	C601046	500		Reference	

HNO3 lot:1114090
HCl lot:4113083
DigiTube lot:218981
DigiBlock:E10632
Thermometer:E10758

Pipettors:
MET02-0100
MET04-0500
MET05-1000
MET07-9500
MET08-10000

Preparation Reviewed By Date

ANALYSIS SEQUENCE

1612045

Instrument: ICPMS-PE DRC-II Sequence Date: 12/08/16 00:00 Printed: 12/8/2016 12:25:57PM

Lab Number	Dilut. Factor	Analysis	STD ID	Sample/Std Name	EPA Tag ID	Source Sple	Comments
1612045-ICV1		QC	C601060	Initial Cal Check		-	
1612045-SCV1		QC	C601057	Secondary Cal Check		-	
1612045-ICB1		QC		Initial Cal Blank		-	
1612045-CRL1		QC	C601056	Instrument RL Check		-	
1612045-IFA1		QC	C601058	Interference Check A		-	
1612045-IFB1		QC	C601059	Interference Check B		-	
1612039-BLK1		QC		Blank		-	
1612039-BS1		QC		LCS		-	
C161021-03 A		ICPMS Diss. Metals		SS71-SS-00-EPA	8-C		
1612039-DUP1		QC		Duplicate		C161021-03	
1612045-SRD1		QC		Serial Dilution		C161021-03	
1612039-MS1		QC		Matrix Spike		C161021-03	
C161021-06 A		ICPMS Diss. Metals		SS72-SS-00-EPA	8-C		
1612039-MS2		QC		Matrix Spike		C161021-06	
C161021-09 A		ICPMS Diss. Metals		SS73-SS-00-EPA	8-C		
1612045-CCV1		QC	C601060	Calibration Check		-	
1612045-CCB1		QC		Calibration Blank		-	
C161021-12 A		ICPMS Diss. Metals		SS74-SS-00-EPA	8-C		
C161021-15 A		ICPMS Diss. Metals		SS75-SS-00-EPA	8-C		
C161021-18 A		ICPMS Diss. Metals		SS76-SS-00-EPA	8-C		
C161021-21 A		ICPMS Diss. Metals		SS77-SS-00-EPA	8-C		
C161021-24 A		ICPMS Diss. Metals		SS78-SS-00-EPA	8-C		
C161021-27 A		ICPMS Diss. Metals		SS78-SS-30-EPA	8-C		
C161021-30 A		ICPMS Diss. Metals		SS79-SS-00-EPA	8-C		
C161021-33 A		ICPMS Diss. Metals		SS80-SS-00-EPA	8-C		
C161021-36 A		ICPMS Diss. Metals		SS80-SS-90-EPA	8-C		
C161021-39 A		ICPMS Diss. Metals		SW81-SW-00-EPA	8-C		
1612045-CCV2		QC	C601060	Calibration Check		-	
1612045-CCB2		QC		Calibration Blank		-	

ANALYSIS SEQUENCE

1612046

12/08/16

Instrument: ICPMS-PE DRC-II Sequence Date: 12/08/16 00:00 Printed: 12/8/2016 12:27:41PM

Lab Number	Dilut. Factor	Analysis	STD ID	Sample/Std Name	EPA Tag ID	Source Sple	Comments
1612046-ICV1		QC	C601060	Initial Cal Check		-	
1612046-SCV1		QC	C601057	Secondary Cal Check		-	
1612046-ICB1		QC		Initial Cal Blank		-	
1612046-CRL1		QC	C601056	Instrument RL Check		-	
1612046-IFA1		QC	C601058	Interference Check A		-	
1612046-IFB1		QC	C601059	Interference Check B		-	
1612046-CCV1		QC	C601060	Calibration Check		-	
1612046-CCB1		QC		Calibration Blank		-	
1612046-CCV2		QC	C601060	Calibration Check		-	
1612046-CCB2		QC		Calibration Blank		-	
1611171-BLK2		QC		Blank		-	
C161021-02 A		ICPMS Tot. Rec. Metals		SS71-SS-00-EPA	8-B		
1611171-DUP2		QC		Duplicate		C161021-02	
1612046-SRD1		QC		Serial Dilution		C161021-02	
1611171-SRM2		QC		Reference		-	
1611171-MS2		QC		Matrix Spike		C161021-02	
C161021-05 A		ICPMS Tot. Rec. Metals		SS72-SS-00-EPA	8-B		
1611171-MS4		QC		Matrix Spike		C161021-05	
C161021-08 A		ICPMS Tot. Rec. Metals		SS73-SS-00-EPA	8-B		
1612046-CCV3		QC	C601060	Calibration Check		-	
1612046-CCB3		QC		Calibration Blank		-	
C161021-11 A		ICPMS Tot. Rec. Metals		SS74-SS-00-EPA	8-B		
C161021-14 A		ICPMS Tot. Rec. Metals		SS75-SS-00-EPA	8-B		
C161021-17 A		ICPMS Tot. Rec. Metals		SS76-SS-00-EPA	8-B		
C161021-20 A		ICPMS Tot. Rec. Metals		SS77-SS-00-EPA	8-B		
C161021-23 A		ICPMS Tot. Rec. Metals		SS78-SS-00-EPA	8-B		
C161021-26 A		ICPMS Tot. Rec. Metals		SS78-SS-30-EPA	8-B		
C161021-29 A		ICPMS Tot. Rec. Metals		SS79-SS-00-EPA	8-B		
C161021-32 A		ICPMS Tot. Rec. Metals		SS80-SS-00-EPA	8-B		
C161021-35 A		ICPMS Tot. Rec. Metals		SS80-SS-90-EPA	8-B		
C161021-38 A		ICPMS Tot. Rec. Metals		SW81-SW-00-EPA	8-B		
1612046-CCV4		QC	C601060	Calibration Check		-	
1612046-CCB4		QC		Calibration Blank		-	

Run List

Sample File Name: 1612039_DISSA_120816.sam

12/06/16

AS Loc.	Sample ID	Batch Index	Sample Type	Method
1	Blank		Blank	esat2010.mth
2	Standard 1		Standard	esat2010.mth
3	Standard 2		Standard	esat2010.mth
4	Standard 3		Standard	esat2010.mth
6	SEQ-ICV		QC Std	esat2010.mth
5	SEQ-SCV		QC Std	esat2010.mth
1	SEQ-ICB		QC Std	esat2010.mth
26	SEQ-CRL		QC Std	esat2010.mth
7	SEQ-IFA		QC Std	esat2010.mth
8	SEQ-IFB		QC Std	esat2010.mth
27	1612039-BLK1	1	Sample	esat2010.mth
28	1612039-BS1	2	Spike - 3 of 1	esat2010.mth
29	C161021-03 @5x	3	Sample	esat2010.mth
30	1612039-DUP1	4	Duplicate of 3	esat2010.mth
31	SEQ-SRD1 ~~@5X~~ @25x	5	Dilution - DF:5 of 3	esat2010.mth
32	1612039-MS1 @5x	6	Spike - 3 of 3	esat2010.mth
33	C161021-06	7	Sample	esat2010.mth
34	1612039-MS2	8	Spike - 3 of 7	esat2010.mth
35	C161021-09	9	Sample	esat2010.mth
36	Blank	10	Sample	esat2010.mth
6	SEQ-CCV		QC Std	esat2010.mth
1	SEQ-CCB		QC Std	esat2010.mth
37	C161021-12 @5x	11	Sample	esat2010.mth
38	C161021-15	12	Sample	esat2010.mth
39	C161021-18	13	Sample	esat2010.mth
40	C161021-21	14	Sample	esat2010.mth
41	C161021-24	15	Sample	esat2010.mth
42	C161021-27	16	Sample	esat2010.mth
43	C161021-30	17	Sample	esat2010.mth
44	C161021-33	18	Sample	esat2010.mth
45	C161021-36	19	Sample	esat2010.mth
46	C161021-39	20	Sample	esat2010.mth
6	SEQ-CCV 2		QC Std	esat2010.mth
1	SEQ-CCB 2		QC Std	esat2010.mth

Run List

Sample File Name: 1611171_TRA_120716.sam

12/08/16

AS Loc.	Sample ID	Batch Index	Sample Type	Method
27	1611171-BLK2 @5X	1	Sample	esat2010.mth
28	C161021-02 @5X	2	Sample	esat2010.mth
29	1611171-DUP2 @5X	3	Duplicate of 2	esat2010.mth
30	SEQ-SRD1 @25X	4	Dilution - DF:5 of 2	esat2010.mth
31	1611171-SRM2 @20X	5	Spike - 1 of 1	esat2010.mth
32	1611171-MS2 @5X	6	Spike - 2 of 2	esat2010.mth
33	C161021-05 @5X	7	Sample	esat2010.mth
34	1611171-MS4 @5X	8	Sample	esat2010.mth
35	C161021-08 @5X	9	Sample	esat2010.mth
36	Blank	10	Sample	esat2010.mth
6	SEQ-CCV 3		QC Std	esat2010.mth
1	SEQ-CCB 3		QC Std	esat2010.mth
37	C161021-11 @5X	11	Sample	esat2010.mth
38	C161021-14 @5X	12	Sample	esat2010.mth
39	C161021-17 @5X	13	Sample	esat2010.mth
40	C161021-20 @5X	14	Sample	esat2010.mth
41	C161021-23 @5X	15	Sample	esat2010.mth
42	C161021-26 @5X	16	Sample	esat2010.mth
43	C161021-29 @5X	17	Sample	esat2010.mth
44	C161021-32 @5X	18	Sample	esat2010.mth
45	C161021-35 @5X	19	Sample	esat2010.mth
46	C161021-38 @5X	20	Sample	esat2010.mth
6	SEQ-CCV 4		QC Std	esat2010.mth
1	SEQ-CCB 4		QC Std	esat2010.mth

Instrument Tuning Report

File Name: ESAT tuning 2010.tun
File Path: C:\Elandata\Tuning\ESAT tuning 2010.tun

12/06/16

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
C	12.000	12.025	2735	2058	0.756	
Mg	23.985	23.975	5627	2054	0.765	
Zn	65.926	65.925	15817	2032	0.757	
In	114.904	114.925	27736	2012	0.753	
Ce	139.905	139.925	33822	2007	0.751	
Pb	207.977	208.025	50392	1986	0.743	
U	238.050	238.075	57707	1965	0.742	

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Thursday, December 08, 2016 07:59:07
Sample Description:
Method File: C:\Elandata\Method\ESAT Daily Performance 2010.mth
Dataset File: C:\Elandata\DataSet\Default\Daily Performance Check.94708
Tuning File: C:\Elandata\Tuning\ESAT tuning 2010.tun
Optimization File: C:\Elandata\Optimize\ESAT optimization 2010.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 80
Current Dead Time (ns): 80

lw12/08/16

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24.0	17297.0	17297.037	175.313	1.0
	In	114.9	142189.7	142189.659	544.369	0.4
	U	238.1	152571.8	152571.805	365.335	0.2
⌈>	Ce	139.9	133668.7	133668.686	623.680	0.5
⌊	CeO	155.9	3298.4	0.025	0.000	1.9
⌈>	Ba	137.9	98549.4	98549.433	362.816	0.4
⌊	Ba++	69.0	1875.7	0.019	0.000	1.4
	Bkgd	220.0	0.6	0.567	0.253	44.6
	Bkgd	8.5	73.6	73.634	2.866	3.9

Current Optimization File Data

Current Value	Description
0.65	Nebulizer Gas Flow [NEB]
1.20	Auxiliary Gas Flow
17.00	Plasma Gas Flow
9.50	Lens Voltage
1050.00	ICP RF Power
-1675.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset Std [QRO]
-15.00	Cell Rod Offset Std [CRO]
22.00	Discriminator Threshold
-14.00	Cell Path Voltage Std [CPV]
0.00	RPa
0.25	RPq
0.82	DRC Mode NEB
-10.00	DRC Mode QRO
-1.00	DRC Mode CRO
-5.00	DRC Mode CPV
0.00	Cell Gas A
0.00	Cell Gas B

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	39	7.8	1983.3
Co	59	39	8.5	49597.0
In	115	39	10.0	140517.0

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Elandata\Wizard\SmartTune\ESAT Smart Tune 2010.swz

Start Time: 12/8/2016 7:46:51 AM
End Time: 12/8/2016 8:02:50 AM

Nebulizer Gas Flow [NEB] - [Passed] Optimum value(s): 0.65
    Obtained Intensity (In 114.904): 131612
    Obtained Formula (CeO 155.9 / Ce 139.905): 0.028 (=3358 / 121702)

Lens Voltage - [Passed] Optimum value(s): 9.5
    Obtained Intensity (In 114.904): 130469

AutoLens - [Passed] Optimum value(s): y = 0.021 x + 7.448

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
    Target/Obtained mass (12/12.025), Target/Obtained resolution (0.75/0.756)
    Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.75/0.765)
    Target/Obtained mass (65.926/65.925), Target/Obtained resolution (0.75/0.757)
    Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.75/0.753)
    Target/Obtained mass (139.905/139.925), Target/Obtained resolution (0.75/0.751)
    Target/Obtained mass (207.977/208.025), Target/Obtained resolution (0.75/0.743)
    Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.75/0.742)

Daily Performance Check - [Passed] Optimum value(s): N/A
    Obtained Intensity (Mg 23.985): 17297
    Obtained Intensity (In 114.904): 142190
    Obtained Intensity (Bkgd 220): 1
    Obtained Formula (CeO 155.9 / Ce 139.905): 0.025 (=3298 / 133669)
    Obtained Formula (Ba++ 68.9525 / Ba 137.905): 0.019 (=1876 / 98927)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Elandata\Wizard\SmartTune\ESAT Smart Tune 2010.swz

Optimization Status

Start Time: 12/8/2016 7:46:51 AM

Nebulizer Gas Flow [NEB]
Optimization Settings:
Method: C:\Elandata\Method\ESAT Optimize 2010.mth.
Initial Try - Start/End/Step: 0.6/0.65/0.01.
Intensity Criterion: In 114.904 Maximum
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.031

Optimization Results:
Initial Try
Obtained Intensity (In 114.904): 131612
Obtained Formula (CeO 155.9 / Ce 139.905): 0.028 (=3358 / 121702)
[Passed] Optimum value(s): 0.65

Lens Voltage
Optimization Settings:
Method: C:\Elandata\Method\ESAT Optimize 2010.mth.
Initial Try - Start/End/Step: 7.5/9.5/0.25.
Intensity Criterion: In 114.904 Maximum

Optimization Results:
Initial Try
Obtained Intensity (In 114.904): 130469
[Passed] Optimum value(s): 9.5

AutoLens
Optimization Settings:
Method: C:\Elandata\Method\ESAT AutoLens Calibration 2010.mth.
Initial Try - Start/End/Step: 3/12.5/0.25.

Optimization Results:
Initial Try
[Passed] Optimum value(s): y = 0.021 x + 7.448

Analyte	Mass	Points	DAC	MaxIntensity
Be	9.012	39	7.75	1983.31
Co	58.933	39	8.5	49597
In	114.904	39	10	140517

Mass Calibration and Resolution
Optimization Settings:
Method: C:\Elandata\Method\ESAT Tuning 2010.mth.
Tuning File: C:\Elandata\Tuning\ESAT tuning 2010.tun
Iterations: 6
Target accuracy (+/- amu): 0.1 for Mass Cal. and 0.1 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:
Initial Try
Target/Obtained mass (12/12.025), Target/Obtained resolution (0.75/0.756)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.75/0.765)

```
                Target/Obtained mass (65.926/65.925), Target/Obtained resolution (0.75/0.757)
                Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.75/0.753)
                Target/Obtained mass (139.905/139.925), Target/Obtained resolution (0.75/0.751)
                Target/Obtained mass (207.977/208.025), Target/Obtained resolution (0.75/0.743)
                Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.75/0.742)
[Passed]  Optimum value(s): N/A

Daily Performance Check
        Optimization Settings:
                Method: C:\Elandata\Method\ESAT Daily Performance 2010.mth.
                Intensity Criterion: Mg 23.985 > 8000
                Intensity Criterion: In 114.904 > 30000
                Intensity Criterion: Bkgd 220 <= 30
                Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.03
                Formula Criterion: Ba++ 68.9525 / Ba 137.905 <= 0.03

        Optimization Results:
        Initial Try
                Obtained Intensity (Mg 23.985): 17297
                Obtained Intensity (In 114.904): 142190
                Obtained Intensity (Bkgd 220): 1
                Obtained Formula (CeO 155.9 / Ce 139.905): 0.025 (=3298 / 133669)
                Obtained Formula (Ba++ 68.9525 / Ba 137.905): 0.019 (=1876 / 98927)
[Passed]  Optimum value(s): N/A

End Time: 12/8/2016 8:02:50 AM
```

Method 200.8 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, December 08, 2016 09:07:00
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Blank.94709
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	862.282	4.673				ug/L
	Be	9	0.000					ug/L
	Al	27	1277.353	1.177				ug/L
>	Sc	45	97307.786	0.658				ug/L
	V	51	1677.575	20.257				ug/L
	Cr	52	3737.787	5.805				ug/L
	Mn	55	2257.632	5.165				ug/L
	Co	59	12.778	32.825				ug/L
	Ni	60	96.112	2.574				ug/L
	Cu	65	41.111	26.064				ug/L
	Zn	66	168.891	4.664				ug/L
>	Ge	72	51912.480	0.331				ug/L
	As	75	-144.055	72.289				ug/L
	Se	82	5.000	350.684				ug/L
	Y	89	10.000	44.096				ug/L
	Mo	98	58.334	17.843				ug/L
	Ag	107	7.222	13.323				ug/L
	Ag	109	15.556	16.366				ug/L
	Cd	111	3.364	77.232				ug/L
	Cd	114	-3.518	1008.170				ug/L
>	In	115	258751.132	1.094				ug/L
	Sb	121	21.111	29.889				ug/L
	Ba	135	6.667	25.000				ug/L
>	Tb	159	300062.850	0.891				ug/L
	Ho	165	0.556	173.205				ug/L
	Tl	205	253.339	15.513				ug/L
	Pb	208	251.113	14.994				ug/L
	Bi	209	0.000					ug/L
	Th	232	47.778	21.027				ug/L
	U	238	17.222	20.145				ug/L
	Na	23	7065.104	2.330				mg/L
	Mg	24	1842.494	3.660				mg/L
	K	39	378086.220	1.753				mg/L
	Ca	44	3273.636	3.397				mg/L
	Fe	54	13573.344	2.229				mg/L
>	Sc-1	45	97307.786	0.658				mg/L
	Kr	83	41.667	39.396				mg/L
	N	15	10186.083	4.616				mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6					
⌊	Be	9					
⌈	Al	27					
|>	Sc	45					
|	V	51					
|	Cr	52					
|	Mn	55					
|	Co	59					
|	Ni	60					
⌊	Cu	65					
⌈	Zn	66					
|>	Ge	72					
|	As	75					
⌊	Se	82					
	Y	89					
⌈	Mo	98					
|	Ag	107					
|	Ag	109					
|	Cd	111					
|	Cd	114					
|>	In	115					
⌊	Sb	121					
⌈	Ba	135					
|>	Tb	159					
|	Ho	165					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					
⌈	Na	23					
|	Mg	24					
|	K	39					
|	Ca	44					
|	Fe	54					
⌊>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, December 08, 2016 09:10:04
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Standard 1.94710
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	853.392	4.398	853.392			ug/L
	Be	9	1400.157	5.019	1.641	10.00000	3.43	ug/L
	Al	27	113050.345	2.492	1.149	50.00000	3.04	ug/L
>	Sc	45	97282.393	0.627	97282.393			ug/L
	V	51	32896.776	1.129	0.321	10.00000	1.67	ug/L
	Cr	52	31379.134	0.841	0.284	10.00000	1.53	ug/L
	Mn	55	41992.207	1.624	0.408	10.00000	2.11	ug/L
	Co	59	36584.596	2.817	0.376	10.00000	2.68	ug/L
	Ni	60	8215.135	1.099	0.083	10.00000	1.11	ug/L
	Cu	65	9671.369	2.550	0.099	10.00000	2.88	ug/L
	Zn	66	6136.345	1.691	0.116	10.00000	1.56	ug/L
>	Ge	72	51546.142	0.859	51546.142			ug/L
	As	75	5549.911	0.439	0.110	10.00000	0.80	ug/L
	Se	82	628.035	6.968	0.012	10.00000	6.61	ug/L
	Y	89	22.778	4.225	12.778			ug/L
	Mo	98	16091.184	1.219	0.062	10.00000	2.02	ug/L
	Ag	107	31503.099	1.610	0.121	10.00000	0.82	ug/L
	Ag	109	30530.504	1.102	0.118	10.00000	1.32	ug/L
	Cd	111	7607.737	1.986	0.029	10.00000	1.32	ug/L
	Cd	114	18447.717	1.895	0.071	10.00000	2.24	ug/L
>	In	115	259405.539	0.816	259405.539			ug/L
	Sb	121	24539.756	1.607	0.095	10.00000	0.89	ug/L
	Ba	135	6098.530	0.469	0.020	10.00000	1.30	ug/L
>	Tb	159	297647.025	1.040	297647.025			ug/L
	Ho	165	0.556	173.205	0.000			ug/L
	Tl	205	62740.569	0.667	0.210	10.00000	1.57	ug/L
	Pb	208	85033.358	0.975	0.285	10.00000	1.74	ug/L
	Bi	209	15.000	98.758	0.000			ug/L
	Th	232	87949.677	2.161	0.295	10.00000	1.60	ug/L
	U	238	100698.628	0.302	0.338	10.00000	1.18	ug/L
	Na	23	285754.876	0.422	2.865	0.10000	0.99	mg/L
	Mg	24	135303.429	1.062	1.372	0.10000	1.69	mg/L
	K	39	836572.581	0.493	4.714	0.10000	1.88	mg/L
	Ca	44	15607.797	0.177	0.127	0.10000	0.64	mg/L
	Fe	54	45044.865	4.305	0.324	0.10000	5.76	mg/L
>	Sc-1	45	97282.393	0.627	97282.393			mg/L
	Kr	83	37.222	11.268	-4.444			mg/L
	N	15	17940.777	6.134	7754.694			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Al	27					
>	Sc	45					
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72					
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Ba	135					
>	Tb	159					
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, December 08, 2016 09:13:08
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Standard 2.94711
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	886.730	6.466	886.730			ug/L
	Be	9	2876.217	1.841	3.250	19.96083	4.78	ug/L
	Al	27	202285.736	1.417	2.062	97.76288	1.89	ug/L
>	Sc	45	97478.196	0.772	97478.196			ug/L
	V	51	65135.610	2.720	0.651	20.05564	2.01	ug/L
	Cr	52	57607.698	2.285	0.553	19.88652	2.15	ug/L
	Mn	55	81144.995	0.428	0.809	19.96215	1.04	ug/L
	Co	59	71810.876	2.216	0.737	19.91764	2.72	ug/L
	Ni	60	16244.558	1.184	0.166	19.97004	1.94	ug/L
	Cu	65	18497.891	1.173	0.189	19.81883	1.19	ug/L
	Zn	66	10410.330	0.772	0.195	19.27361	1.57	ug/L
>	Ge	72	52551.699	1.241	52551.699			ug/L
	As	75	12006.142	1.180	0.231	20.18125	2.33	ug/L
	Se	82	1353.263	4.607	0.026	20.23591	5.82	ug/L
	Y	89	18.333	18.182	8.333			ug/L
	Mo	98	32270.819	0.813	0.123	19.98960	0.52	ug/L
	Ag	107	63169.921	1.808	0.242	19.98285	1.82	ug/L
	Ag	109	62337.677	0.584	0.239	20.05524	0.39	ug/L
	Cd	111	15396.270	1.438	0.059	20.02021	1.53	ug/L
	Cd	114	37401.637	0.664	0.143	20.02570	0.92	ug/L
>	In	115	261238.076	0.298	261238.076			ug/L
	Sb	121	50002.618	2.139	0.191	20.04801	1.96	ug/L
	Ba	135	12690.093	1.064	0.042	20.08863	1.27	ug/L
>	Tb	159	303026.352	1.780	303026.352			ug/L
	Ho	165	3.889	49.487	0.000			ug/L
	Tl	205	127224.725	1.111	0.419	19.99171	1.55	ug/L
	Pb	208	170709.215	0.287	0.563	19.94939	1.67	ug/L
	Bi	209	6.667	43.301	0.000			ug/L
	Th	232	183698.417	2.683	0.606	20.10197	1.13	ug/L
	U	238	206063.624	0.573	0.680	20.02067	1.55	ug/L
	Na	23	2084858.806	2.675	21.314	0.99660	2.02	mg/L
	Mg	24	1353174.065	0.813	13.863	1.00010	1.07	mg/L
	K	39	3419149.630	0.219	31.192	0.99496	0.74	mg/L
	Ca	44	93520.134	1.427	0.926	0.99635	1.04	mg/L
	Fe	54	224262.497	2.585	2.161	0.99510	2.11	mg/L
>	Sc-1	45	97478.196	0.772	97478.196			mg/L
	Kr	83	32.222	2.986	-9.445			mg/L
	N	15	14892.796	7.890	4706.713			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Al	27					
>	Sc	45					
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72					
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Ba	135					
>	Tb	159					
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: Standard 3

Sample Date/Time: Thursday, December 08, 2016 09:16:13
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Standard 3.94712
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	810.052	1.426	810.052			ug/L
	Be	9	13397.690	3.643	16.543	100.07500	4.29	ug/L
	Al	27	960557.451	0.933	10.105	498.96172	1.01	ug/L
>	Sc	45	94931.077	0.234	94931.077			ug/L
	V	51	306983.230	0.282	3.217	99.95717	0.50	ug/L
	Cr	52	260343.952	0.349	2.704	99.86899	0.56	ug/L
	Mn	55	377474.398	0.529	3.953	99.87856	0.76	ug/L
	Co	59	330858.271	1.057	3.485	99.70954	1.29	ug/L
	Ni	60	75984.373	0.099	0.799	99.82047	0.32	ug/L
	Cu	65	84435.456	1.112	0.889	99.64588	1.34	ug/L
	Zn	66	45920.304	0.671	0.880	99.29293	1.34	ug/L
>	Ge	72	52021.161	0.678	52021.161			ug/L
	As	75	58997.562	0.757	1.137	99.96192	1.18	ug/L
	Se	82	5950.083	1.525	0.114	99.47932	0.98	ug/L
	Y	89	30.556	11.355	20.556			ug/L
	Mo	98	153655.127	0.725	0.605	99.90421	1.40	ug/L
	Ag	107	293148.542	0.432	1.154	99.76939	0.30	ug/L
	Ag	109	286502.948	0.303	1.128	99.73995	0.90	ug/L
	Cd	111	72686.263	0.727	0.286	99.86368	0.95	ug/L
	Cd	114	176809.876	0.730	0.696	99.87047	1.41	ug/L
>	In	115	254038.578	0.719	254038.578			ug/L
	Sb	121	232866.814	2.625	0.916	99.80390	1.92	ug/L
	Ba	135	59370.689	1.309	0.201	99.81341	0.72	ug/L
>	Tb	159	296068.644	1.160	296068.644			ug/L
	Ho	165	33.889	12.377	0.000			ug/L
	Tl	205	611504.993	0.847	2.065	99.92750	1.28	ug/L
	Pb	208	809550.902	0.165	2.734	99.84950	1.02	ug/L
	Bi	209	21.111	16.434	0.000			ug/L
	Th	232	934285.009	0.618	3.156	100.21327	0.80	ug/L
	U	238	1009846.516	0.938	3.411	100.01969	1.13	ug/L
	Na	23	19095148.466	0.324	201.076	9.99365	0.49	mg/L
	Mg	24	12620220.425	3.825	132.923	9.99572	3.86	mg/L
	K	39	28855935.251	1.526	300.088	9.99553	1.72	mg/L
	Ca	44	847130.330	0.811	8.890	9.99549	0.58	mg/L
	Fe	54	1979202.666	0.071	20.709	9.99514	0.17	mg/L
>	Sc-1	45	94931.077	0.234	94931.077			mg/L
	Kr	83	38.889	28.536	-2.778			mg/L
	N	15	15468.105	8.828	5282.022			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6					
⌊	Be	9					
⌈	Al	27					
|>	Sc	45					
|	V	51					
|	Cr	52					
|	Mn	55					
|	Co	59					
|	Ni	60					
⌊	Cu	65					
⌈	Zn	66					
|>	Ge	72					
|	As	75					
⌊	Se	82					
	Y	89					
⌈	Mo	98					
|	Ag	107					
|	Ag	109					
|	Cd	111					
|	Cd	114					
|>	In	115					
⌊	Sb	121					
⌈	Ba	135					
|>	Tb	159					
|	Ho	165					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					
⌈	Na	23					
|	Mg	24					
|	K	39					
|	Ca	44					
|	Fe	54					
⌊>	Sc-1	45					
	Kr	83					
	N	15					

Calibration

Analyte	Mass	Correlation Coefficient
Li	6	
Be	9	0.999994
Al	27	0.999905
Sc	45	
V	51	0.999997
Cr	52	0.999980
Mn	55	0.999985
Co	59	0.999914
Ni	60	0.999968
Cu	65	0.999866
Zn	66	0.999337
Ge	72	
As	75	0.999991
Se	82	0.999713
Y	89	
Mo	98	0.999991
Ag	107	0.999947
Ag	109	0.999932
Cd	111	0.999981
Cd	114	0.999983
In	115	
Sb	121	0.999961
Ba	135	0.999963
Tb	159	
Ho	165	
Tl	205	0.999995
Pb	208	0.999977
Bi	209	
Th	232	0.999952
U	238	1.000000
Na	23	0.999973
Mg	24	0.999991
K	39	0.999976
Ca	44	0.999983
Fe	54	0.999975
Sc-1	45	
Kr	83	
N	15	

Method 200.8 - Summary Report

Sample ID: SEQ-ICV

Sample Date/Time: Thursday, December 08, 2016 09:19:18
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-ICV.94713
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	786.161	3.434	786.161			ug/L
	Be	9	6744.749	1.304	8.584	51.92547	2.28	ug/L
	Al	27	459814.946	2.126	4.809	237.44289	1.97	ug/L
>	Sc	45	95355.814	0.529	95355.814			ug/L
	V	51	152133.515	2.834	1.578	49.03994	2.33	ug/L
	Cr	52	132994.003	0.444	1.356	50.09256	0.37	ug/L
	Mn	55	188352.895	0.895	1.952	49.31999	0.72	ug/L
	Co	59	171638.342	1.010	1.800	51.49198	0.53	ug/L
	Ni	60	37322.800	1.959	0.390	48.75218	2.32	ug/L
	Cu	65	42731.146	1.119	0.448	50.18242	1.61	ug/L
	Zn	66	23228.086	0.945	0.451	50.96108	2.16	ug/L
>	Ge	72	51098.053	1.274	51098.053			ug/L
	As	75	28004.993	1.308	0.551	48.43422	1.40	ug/L
	Se	82	3061.432	2.359	0.060	52.07863	2.96	ug/L
	Y	89	16.667	43.589	6.667			ug/L
	Mo	98	77094.149	1.085	0.300	49.62589	2.47	ug/L
	Ag	107	149816.660	0.934	0.584	50.49198	0.85	ug/L
	Ag	109	148446.733	0.754	0.579	51.17296	0.68	ug/L
	Cd	111	36744.496	1.174	0.143	49.98833	0.40	ug/L
	Cd	114	88983.661	1.593	0.347	49.76958	0.79	ug/L
>	In	115	256540.940	1.396	256540.940			ug/L
	Sb	121	121604.106	1.902	0.474	51.60761	0.53	ug/L
	Ba	135	29910.849	0.809	0.102	50.66413	0.51	ug/L
>	Tb	159	293834.010	1.151	293834.010			ug/L
	Ho	165	12.778	27.152	0.000			ug/L
	Tl	205	302847.122	0.296	1.030	49.84552	1.19	ug/L
	Pb	208	405898.692	1.298	1.381	50.42656	1.16	ug/L
	Bi	209	8.889	28.641	0.000			ug/L
	Th	232	452141.782	0.958	1.539	48.86199	0.22	ug/L
	U	238	494412.436	0.613	1.683	49.34397	1.72	ug/L
	Na	23	9345891.778	1.188	97.944	4.86788	1.68	mg/L
	Mg	24	6187324.210	3.514	64.861	4.87751	2.99	mg/L
	K	39	14350114.395	0.883	146.607	4.88328	1.00	mg/L
	Ca	44	411398.401	1.398	4.281	4.81306	1.28	mg/L
	Fe	54	977516.724	0.990	10.112	4.88054	1.45	mg/L
>	Sc-1	45	95355.814	0.529	95355.814			mg/L
	Kr	83	39.445	20.843	-2.222			mg/L
	N	15	14962.356	4.461	4776.273			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		91.172			
	Be	9	103.851				
	Al	27	94.977				
>	Sc	45		97.994			
	V	51	98.080				
	Cr	52	100.185				
	Mn	55	98.640				
	Co	59	102.984				
	Ni	60	97.504				
	Cu	65	100.365				
	Zn	66	101.922				
>	Ge	72		98.431			
	As	75	96.868				
	Se	82	104.157				
	Y	89					
	Mo	98	99.252				
	Ag	107	100.984				
	Ag	109	102.346				
	Cd	111	99.977				
	Cd	114					
>	In	115		99.146			
	Sb	121	103.215				
	Ba	135	101.328				
>	Tb	159		97.924			
	Ho	165					
	Tl	205	99.691				
	Pb	208	100.853				
	Bi	209					
	Th	232	97.724				
	U	238	98.688				
	Na	23	97.358				
	Mg	24	97.550				
	K	39	97.666				
	Ca	44	96.261				
	Fe	54	97.611				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-SCV

Sample Date/Time: Thursday, December 08, 2016 09:22:38
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-SCV.94714
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	837.834	4.995	837.834			ug/L
	Be	9	6783.682	3.260	8.105	49.02682	3.90	ug/L
	Al	27	952021.961	0.958	10.015	494.50893	1.31	ug/L
>	Sc	45	94939.023	1.048	94939.023			ug/L
	V	51	156787.289	0.781	1.634	50.79045	1.68	ug/L
	Cr	52	136236.759	1.264	1.397	51.58577	2.02	ug/L
	Mn	55	195720.332	2.049	2.039	51.51001	3.04	ug/L
	Co	59	175650.547	1.572	1.850	52.93590	2.43	ug/L
	Ni	60	38769.312	0.950	0.407	50.86758	0.77	ug/L
	Cu	65	44770.376	1.986	0.471	52.80811	1.75	ug/L
	Zn	66	25440.011	1.415	0.488	55.06555	1.48	ug/L
>	Ge	72	51811.651	0.537	51811.651			ug/L
	As	75	28030.457	2.892	0.544	47.81471	3.24	ug/L
	Se	82	15650.548	1.251	0.302	262.87600	1.60	ug/L
	Y	89	515.577	5.831	505.577			ug/L
	Mo	98	79669.385	0.348	0.308	50.92008	0.22	ug/L
	Ag	107	153017.303	1.100	0.592	51.21207	0.81	ug/L
	Ag	109	151582.385	1.009	0.587	51.89082	0.81	ug/L
	Cd	111	38349.819	1.379	0.148	51.81176	1.24	ug/L
	Cd	114	92227.043	0.732	0.357	51.22837	0.53	ug/L
>	In	115	258319.278	0.475	258319.278			ug/L
	Sb	121	129052.916	1.769	0.500	54.39498	1.74	ug/L
	Ba	135	32791.357	0.906	0.110	54.79785	1.54	ug/L
>	Tb	159	297845.872	0.637	297845.872			ug/L
	Ho	165	32.222	10.767	0.000			ug/L
	Tl	205	313718.056	1.142	1.053	50.93877	1.65	ug/L
	Pb	208	421713.382	0.536	1.415	51.68508	0.34	ug/L
	Bi	209	53.889	12.499	0.000			ug/L
	Th	232	469184.949	0.836	1.575	50.01995	0.36	ug/L
	U	238	520087.543	0.572	1.746	51.20317	1.18	ug/L
	Na	23	10156046.540	1.573	106.898	5.31291	0.54	mg/L
	Mg	24	6435615.402	1.629	67.766	5.09595	0.86	mg/L
	K	39	15231896.896	1.294	156.567	5.21502	1.79	mg/L
	Ca	44	532080.853	0.276	5.571	6.26418	1.32	mg/L
	Fe	54	1025708.058	1.631	10.666	5.14798	2.69	mg/L
>	Sc-1	45	94939.023	1.048	94939.023			mg/L
	Kr	83	43.333	27.735	1.667			mg/L
	N	15	14661.179	10.011	4475.096			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		97.165			
	Be	9	98.054				
	Al	27	989.018				
>	Sc	45		97.566			
	V	51	101.581				
	Cr	52	103.172				
	Mn	55	103.020				
	Co	59	105.872				
	Ni	60	101.735				
	Cu	65	105.616				
	Zn	66	110.131				
>	Ge	72		99.806			
	As	75	95.629				
	Se	82	105.150				
	Y	89					
	Mo	98	101.840				
	Ag	107	102.424				
	Ag	109	103.782				
	Cd	111	103.624				
	Cd	114					
>	In	115		99.833			
	Sb	121	108.790				
	Ba	135	109.596				
>	Tb	159		99.261			
	Ho	165					
	Tl	205	101.878				
	Pb	208	103.370				
	Bi	209					
	Th	232	100.040				
	U	238	102.406				
	Na	23	106.258				
	Mg	24	101.919				
	K	39	104.300				
	Ca	44	125.284				
	Fe	54	102.960				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-ICB

Sample Date/Time: Thursday, December 08, 2016 09:25:58
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-ICB.94715
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	793.939	2.124	793.939			ug/L
	Be	9	3.889	65.465	0.005	0.02985	66.57	ug/L
	Al	27	1267.351	4.089	0.000	0.01454	230.22	ug/L
>	Sc	45	94457.919	0.974	94457.919			ug/L
	V	51	1051.208	11.505	-0.006	-0.18982	21.41	ug/L
	Cr	52	3128.561	2.809	-0.005	-0.19555	11.67	ug/L
	Mn	55	1657.177	8.205	-0.006	-0.14313	22.42	ug/L
	Co	59	32.222	18.165	0.000	0.00601	30.68	ug/L
	Ni	60	94.356	16.036	0.000	0.00150	1400.56	ug/L
	Cu	65	57.778	14.803	0.000	0.02125	49.50	ug/L
	Zn	66	151.669	12.673	-0.000	-0.03581	118.60	ug/L
>	Ge	72	51661.524	0.196	51661.524			ug/L
	As	75	-127.732	69.680	0.000	0.02673	564.92	ug/L
	Se	82	17.556	26.673	0.000	0.21204	37.35	ug/L
	Y	89	10.000	28.868	-0.000			ug/L
	Mo	98	137.658	6.004	0.000	0.04995	11.22	ug/L
	Ag	107	48.334	29.462	0.000	0.01360	34.27	ug/L
	Ag	109	42.778	23.485	0.000	0.00919	37.53	ug/L
	Cd	111	4.788	37.684	0.000	0.00186	128.42	ug/L
	Cd	114	8.560	404.480	0.000	0.00663	286.48	ug/L
>	In	115	260870.736	0.465	260870.736			ug/L
	Sb	121	593.362	2.449	0.002	0.23883	2.98	ug/L
	Ba	135	8.333	20.000	0.000	0.00263	105.40	ug/L
>	Tb	159	303158.086	0.873	303158.086			ug/L
	Ho	165	1.111	173.205	0.000			ug/L
	Tl	205	317.786	7.943	0.000	0.00989	43.19	ug/L
	Pb	208	240.557	5.893	-0.000	-0.00158	112.28	ug/L
	Bi	209	2.778	34.641	0.000			ug/L
	Th	232	847.280	4.053	0.003	0.08372	5.12	ug/L
	U	238	62.778	3.066	0.000	0.00439	3.03	ug/L
	Na	23	7820.456	5.862	0.010	0.00051	48.04	mg/L
	Mg	24	2000.877	7.702	0.002	0.00017	75.81	mg/L
	K	39	385235.629	1.393	0.194	0.00645	49.24	mg/L
	Ca	44	3049.080	7.328	-0.001	-0.00151	199.61	mg/L
	Fe	54	13502.615	7.168	0.003	0.00165	270.39	mg/L
>	Sc-1	45	94457.919	0.974	94457.919			mg/L
	Kr	83	35.000	9.524	-6.667			mg/L
	N	15	10162.721	6.095	-23.363			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		92.074			
	Be	9					
	Al	27					
>	Sc	45		97.071			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		99.517			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		100.819			
	Sb	121					
	Ba	135					
>	Tb	159		101.032			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-CRL

Sample Date/Time: Thursday, December 08, 2016 09:29:16
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CRL.94716
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	832.833	4.113	832.833			ug/L
	Be	9	22.778	23.521	0.028	0.16638	26.36	ug/L
	Al	27	37442.394	1.579	0.383	18.90922	2.80	ug/L
>	Sc	45	94548.171	1.114	94548.171			ug/L
	V	51	6811.781	10.352	0.055	1.70283	13.18	ug/L
	Cr	52	8324.431	2.145	0.050	1.83297	2.78	ug/L
	Mn	55	3405.398	5.609	0.013	0.32353	12.84	ug/L
	Co	59	723.375	5.001	0.008	0.21511	4.57	ug/L
	Ni	60	866.549	1.887	0.008	1.02133	3.38	ug/L
	Cu	65	896.175	2.428	0.009	1.01525	3.48	ug/L
	Zn	66	2559.969	1.819	0.046	5.22762	1.52	ug/L
>	Ge	72	51653.688	0.711	51653.688			ug/L
	As	75	1112.209	6.249	0.024	2.13688	5.19	ug/L
	Se	82	151.780	22.326	0.003	2.47319	22.80	ug/L
	Y	89	11.667	49.487	1.667			ug/L
	Mo	98	1569.459	2.835	0.006	0.94333	2.97	ug/L
	Ag	107	2982.378	2.179	0.011	0.97268	2.32	ug/L
	Ag	109	2905.675	1.130	0.011	0.96643	1.13	ug/L
	Cd	111	142.055	12.016	0.001	0.18297	12.44	ug/L
	Cd	114	360.009	2.348	0.001	0.19728	2.49	ug/L
>	In	115	264448.961	0.286	264448.961			ug/L
	Sb	121	2824.527	1.674	0.011	1.15420	1.40	ug/L
	Ba	135	5977.858	0.907	0.019	9.66820	0.61	ug/L
>	Tb	159	307444.009	0.981	307444.009			ug/L
	Ho	165	0.556	173.205	-0.000			ug/L
	Tl	205	6039.027	0.543	0.019	0.90988	1.54	ug/L
	Pb	208	1803.435	3.701	0.005	0.18371	4.63	ug/L
	Bi	209	3.889	24.744	0.000			ug/L
	Th	232	7525.648	5.467	0.024	0.77218	5.04	ug/L
	U	238	1976.979	2.264	0.006	0.18691	3.20	ug/L
	Na	23	2933.475	13.976	-0.042	-0.00207	9.86	mg/L
	Mg	24	1790.812	3.784	0.000	0.00000	22240.03	mg/L
	K	39	369049.134	1.106	0.018	0.00060	313.54	mg/L
	Ca	44	3221.386	0.751	0.000	0.00048	50.51	mg/L
	Fe	54	13582.069	10.635	0.004	0.00199	353.79	mg/L
>	Sc-1	45	94548.171	1.114	94548.171			mg/L
	Kr	83	31.111	20.282	-10.556			mg/L
	N	15	10445.440	9.450	259.357			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		96.585			
	Be	9	83.191				
	Al	27	94.546				
>	Sc	45		97.164			
	V	51	85.142				
	Cr	52	91.649				
	Mn	55	64.705				
	Co	59	107.553				
	Ni	60	102.133				
	Cu	65	101.525				
	Zn	66	104.552				
>	Ge	72		99.501			
	As	75	106.844				
	Se	82	123.660				
	Y	89					
	Mo	98	94.333				
	Ag	107	97.268				
	Ag	109	96.643				
	Cd	111	91.485				
	Cd	114					
>	In	115		102.202			
	Sb	121	115.420				
	Ba	135	96.682				
>	Tb	159		102.460			
	Ho	165					
	Tl	205	90.988				
	Pb	208	91.854				
	Bi	209					
	Th	232	77.218				
	U	238	93.455				
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-IFA

Sample Date/Time: Thursday, December 08, 2016 09:32:35
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-IFA.94717
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	896.176	6.048	896.176			ug/L
	Be	9	2.222	43.301	0.003	0.01530	50.06	ug/L
	Al	27	20340059.431	3.026	204.439	10094.31099	2.06	ug/L
>	Sc	45	99473.177	1.038	99473.177			ug/L
	V	51	1265.072	13.475	-0.005	-0.14051	38.15	ug/L
	Cr	52	4110.796	2.397	0.003	0.10792	46.15	ug/L
	Mn	55	899.747	6.221	-0.014	-0.35771	3.54	ug/L
	Co	59	98.334	20.550	0.001	0.02454	24.11	ug/L
	Ni	60	-132.097	25.473	-0.002	-0.28903	14.41	ug/L
	Cu	65	566.692	7.898	0.005	0.59108	8.16	ug/L
	Zn	66	923.402	6.209	0.014	1.53132	7.54	ug/L
>	Ge	72	54903.995	0.568	54903.995			ug/L
	As	75	-169.642	22.921	-0.000	-0.02748	221.05	ug/L
	Se	82	18.222	44.708	0.000	0.20468	62.45	ug/L
	Y	89	13.889	54.111	3.889			ug/L
	Mo	98	323322.257	1.336	1.196	197.65168	0.59	ug/L
	Ag	107	38.333	46.013	0.000	0.00982	56.41	ug/L
	Ag	109	34.445	22.867	0.000	0.00598	46.30	ug/L
	Cd	111	27.723	88.646	0.000	0.03160	103.09	ug/L
	Cd	114	571.911	1.823	0.002	0.30566	2.34	ug/L
>	In	115	270231.632	1.526	270231.632			ug/L
	Sb	121	374.456	7.778	0.001	0.14194	7.00	ug/L
	Ba	135	53.889	25.189	0.000	0.07647	28.37	ug/L
>	Tb	159	306261.265	0.893	306261.265			ug/L
	Ho	165	0.556	173.205	-0.000			ug/L
	Tl	205	165.002	10.926	-0.000	-0.01478	19.94	ug/L
	Pb	208	531.676	6.789	0.001	0.03287	14.74	ug/L
	Bi	209	14.444	26.647	0.000			ug/L
	Th	232	1697.456	15.188	0.005	0.17096	15.72	ug/L
	U	238	36.667	19.813	0.000	0.00183	39.23	ug/L
	Na	23	20185837.217	2.094	202.842	10.08140	1.17	mg/L
	Mg	24	12924937.377	1.807	129.910	9.76912	1.00	mg/L
	K	39	30795339.580	2.228	305.689	10.18209	1.73	mg/L
	Ca	44	911906.258	1.450	9.133	10.26932	0.43	mg/L
	Fe	54	1985402.074	2.025	19.819	9.56548	1.51	mg/L
>	Sc-1	45	99473.177	1.038	99473.177			mg/L
	Kr	83	41.111	34.479	-0.556			mg/L
	N	15	14605.974	5.821	4419.891			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		103.931			
	Be	9					
	Al	27	100.943				
>	Sc	45		102.225			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		105.763			
	As	75					
	Se	82					
	Y	89					
	Mo	98	98.826				
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		104.437			
	Sb	121					
	Ba	135					
>	Tb	159		102.066			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23	100.814				
	Mg	24	97.691				
	K	39	101.821				
	Ca	44	102.693				
	Fe	54	95.655				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-IFB

Sample Date/Time: Thursday, December 08, 2016 09:35:54
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-IFB.94718
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	912.845	7.316	912.845			ug/L
	Be	9	1.667	100.000	0.002	0.01158	101.03	ug/L
	Al	27	21053021.172	0.870	209.380	10338.29888	0.31	ug/L
>	Sc	45	100542.847	0.815	100542.847			ug/L
	V	51	13.133	2459.085	-0.017	-0.53126	18.74	ug/L
	Cr	52	60918.808	1.157	0.567	20.95866	0.56	ug/L
	Mn	55	84452.648	0.753	0.817	20.63658	0.81	ug/L
	Co	59	75260.475	1.369	0.748	21.41127	0.80	ug/L
	Ni	60	16473.802	0.685	0.163	20.33625	0.96	ug/L
	Cu	65	19178.829	1.244	0.190	21.33237	0.52	ug/L
	Zn	66	11008.024	2.877	0.192	21.64372	2.09	ug/L
>	Ge	72	56454.396	1.064	56454.396			ug/L
	As	75	12955.892	0.723	0.232	20.42309	1.24	ug/L
	Se	82	13.556	6.188	0.000	0.12526	11.77	ug/L
	Y	89	12.222	7.873	2.222			ug/L
	Mo	98	342871.700	1.175	1.249	206.35675	0.18	ug/L
	Ag	107	64010.009	0.575	0.233	20.16174	0.75	ug/L
	Ag	109	62599.183	1.218	0.228	20.16477	0.17	ug/L
	Cd	111	16304.233	1.809	0.059	20.72995	2.10	ug/L
	Cd	114	39962.779	1.095	0.146	20.89448	1.75	ug/L
>	In	115	274479.686	1.322	274479.686			ug/L
	Sb	121	301.674	10.322	0.001	0.11087	11.91	ug/L
	Ba	135	63.334	18.977	0.000	0.09140	22.07	ug/L
>	Tb	159	308012.514	0.797	308012.514			ug/L
	Ho	165	0.000		-0.000			ug/L
	Tl	205	152.224	5.619	-0.000	-0.01694	8.81	ug/L
	Pb	208	550.010	7.648	0.001	0.03468	15.72	ug/L
	Bi	209	12.222	55.111	0.000			ug/L
	Th	232	941.739	17.191	0.003	0.09196	17.46	ug/L
	U	238	16.111	52.068	-0.000	-0.00015	520.21	ug/L
	Na	23	21455090.056	1.511	213.321	10.60223	1.34	mg/L
	Mg	24	13747706.742	1.668	136.710	10.28047	0.88	mg/L
	K	39	32536370.552	1.586	319.714	10.64924	1.08	mg/L
	Ca	44	962770.283	1.028	9.542	10.72900	1.03	mg/L
	Fe	54	2131700.316	0.926	21.062	10.16551	0.41	mg/L
>	Sc-1	45	100542.847	0.815	100542.847			mg/L
	Kr	83	48.334	12.433	6.667			mg/L
	N	15	15429.611	5.098	5243.527			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		105.864			
	Be	9					
	Al	27	103.383				
>	Sc	45		103.325			
	V	51					
	Cr	52	104.793				
	Mn	55	103.183				
	Co	59	107.056				
	Ni	60	101.681				
	Cu	65	106.662				
	Zn	66	108.219				
>	Ge	72		108.749			
	As	75	102.115				
	Se	82					
	Y	89					
	Mo	98	103.178				
	Ag	107	100.809				
	Ag	109	100.824				
	Cd	111	103.650				
	Cd	114					
>	In	115		106.079			
	Sb	121					
	Ba	135					
>	Tb	159		102.649			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23	106.022				
	Mg	24	102.805				
	K	39	106.492				
	Ca	44	107.290				
	Fe	54	101.655				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1612039-BLK1

Sample Date/Time: Thursday, December 08, 2016 09:39:14
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1612039-BLK1.94719
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	858.948	3.854	858.948			ug/L
	Be	9	0.556	173.205	0.001	0.00395	173.21	ug/L
	Al	27	4890.251	6.491	0.034	1.66948	8.75	ug/L
>	Sc	45	104176.609	0.377	104176.609			ug/L
	V	51	1509.972	18.069	-0.003	-0.08543	94.33	ug/L
	Cr	52	3553.233	3.589	-0.004	-0.15884	31.48	ug/L
	Mn	55	1798.305	7.516	-0.006	-0.14997	22.82	ug/L
	Co	59	35.000	12.599	0.000	0.00586	21.03	ug/L
	Ni	60	221.760	7.645	0.001	0.14250	14.64	ug/L
	Cu	65	35.000	29.738	-0.000	-0.00967	117.45	ug/L
	Zn	66	94.445	8.705	-0.002	-0.17917	9.14	ug/L
>	Ge	72	56680.884	1.246	56680.884			ug/L
	As	75	-151.724	43.642	0.000	0.00865	1192.24	ug/L
	Se	82	16.333	87.613	0.000	0.16819	132.72	ug/L
	Y	89	12.222	51.626	2.222			ug/L
	Mo	98	751.156	3.338	0.002	0.39132	4.10	ug/L
	Ag	107	48.334	12.433	0.000	0.01202	15.34	ug/L
	Ag	109	58.334	30.102	0.000	0.01248	42.25	ug/L
	Cd	111	10.587	28.182	0.000	0.00821	43.12	ug/L
	Cd	114	-13.803	98.967	-0.000	-0.00491	138.63	ug/L
>	In	115	289614.546	0.475	289614.546			ug/L
	Sb	121	490.019	10.805	0.002	0.17536	11.31	ug/L
	Ba	135	8.889	21.651	0.000	0.00251	117.14	ug/L
>	Tb	159	326189.795	0.869	326189.795			ug/L
	Ho	165	0.000		-0.000			ug/L
	Tl	205	198.892	1.280	-0.000	-0.01135	2.39	ug/L
	Pb	208	315.003	5.963	0.000	0.00471	44.55	ug/L
	Bi	209	1.667	100.000	0.000			ug/L
	Th	232	112.779	9.615	0.000	0.00592	16.24	ug/L
	U	238	3.333	173.205	-0.000	-0.00138	37.55	ug/L
	Na	23	5599.189	9.704	-0.019	-0.00094	28.69	mg/L
	Mg	24	5646.994	0.680	0.035	0.00265	1.50	mg/L
	K	39	393530.776	1.974	-0.108	-0.00360	56.84	mg/L
	Ca	44	4128.587	4.262	0.006	0.00674	30.33	mg/L
	Fe	54	15775.443	5.686	0.012	0.00577	76.30	mg/L
>	Sc-1	45	104176.609	0.377	104176.609			mg/L
	Kr	83	37.222	18.096	-4.444			mg/L
	N	15	11365.965	11.054	1179.882			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6		99.613			
⌊	Be	9					
⌈	Al	27					
|>	Sc	45		107.059			
|	V	51					
|	Cr	52					
|	Mn	55					
|	Co	59					
|	Ni	60					
⌊	Cu	65					
⌈	Zn	66					
|>	Ge	72		109.185			
|	As	75					
⌊	Se	82					
	Y	89					
⌈	Mo	98					
|	Ag	107					
|	Ag	109					
|	Cd	111					
|	Cd	114					
|>	In	115		111.928			
⌊	Sb	121					
⌈	Ba	135					
|>	Tb	159		108.707			
|	Ho	165					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					
⌈	Na	23					
|	Mg	24					
|	K	39					
|	Ca	44					
|	Fe	54					
⌊>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1612039-BS1

Sample Date/Time: Thursday, December 08, 2016 09:42:18
Sample Type: Spike - 3 of 1
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1612039-BS1.94720
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	843.946	10.646	843.946			ug/L
	Be	9	13418.837	1.821	16.036	97.00355	12.01	ug/L
	Al	27	19965464.695	2.245	201.342	9941.42042	2.67	ug/L
>	Sc	45	99169.586	1.542	99169.586			ug/L
	V	51	300385.821	1.630	3.012	93.59415	0.57	ug/L
	Cr	52	258072.596	1.329	2.564	94.70080	1.35	ug/L
	Mn	55	375466.352	1.553	3.763	95.07286	0.57	ug/L
	Co	59	340102.189	1.629	3.429	98.11377	0.78	ug/L
	Ni	60	74945.039	0.610	0.755	94.24912	0.99	ug/L
	Cu	65	85080.790	1.152	0.858	96.11754	0.76	ug/L
	Zn	66	49013.126	1.450	0.875	98.73283	0.67	ug/L
>	Ge	72	55834.985	1.205	55834.985			ug/L
	As	75	57194.553	2.467	1.027	90.32615	3.29	ug/L
	Se	82	32374.116	1.868	0.580	504.76528	3.00	ug/L
	Y	89	55.000	10.497	45.000			ug/L
	Mo	98	155213.256	0.377	0.557	92.00086	0.45	ug/L
	Ag	107	299078.768	0.543	1.073	92.80113	0.31	ug/L
	Ag	109	294189.906	0.830	1.056	93.37155	0.76	ug/L
	Cd	111	76410.501	0.596	0.274	95.71017	0.24	ug/L
	Cd	114	184948.320	0.775	0.664	95.23972	0.67	ug/L
>	In	115	278633.892	0.376	278633.892			ug/L
	Sb	121	257052.357	0.242	0.922	100.45519	0.59	ug/L
	Ba	135	60946.280	0.724	0.192	95.78537	1.12	ug/L
>	Tb	159	316714.247	0.517	316714.247			ug/L
	Ho	165	34.445	32.936	0.000			ug/L
	Tl	205	595698.354	1.024	1.880	90.98954	1.08	ug/L
	Pb	208	800544.879	0.272	2.527	92.29432	0.59	ug/L
	Bi	209	12.778	32.825	0.000			ug/L
	Th	232	900463.901	0.758	2.843	90.28477	0.72	ug/L
	U	238	996544.075	0.524	3.146	92.26330	0.47	ug/L
	Na	23	20381993.059	0.864	205.468	10.21194	0.68	mg/L
	Mg	24	13203953.284	1.550	133.126	10.01101	0.28	mg/L
	K	39	31213142.684	2.258	310.929	10.35663	3.11	mg/L
	Ca	44	923010.487	0.890	9.274	10.42777	0.67	mg/L
	Fe	54	2061904.214	0.733	20.656	9.96923	1.80	mg/L
>	Sc-1	45	99169.586	1.542	99169.586			mg/L
	Kr	83	59.445	19.891	17.778			mg/L
	N	15	11359.320	13.118	1173.237			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		97.874			
	Be	9			97.000		
	Al	27			99.398		
>	Sc	45		101.913			
	V	51			93.680		
	Cr	52			94.860		
	Mn	55			95.223		
	Co	59			98.108		
	Ni	60			94.107		
	Cu	65			96.127		
	Zn	66					
>	Ge	72		107.556			
	As	75			90.318		
	Se	82			100.919		
	Y	89					
	Mo	98			91.610		
	Ag	107			92.789		
	Ag	109			93.359		
	Cd	111			95.702		
	Cd	114					
>	In	115		107.684			
	Sb	121			100.280		
	Ba	135			95.783		
>	Tb	159		105.549			
	Ho	165					
	Tl	205			91.001		
	Pb	208			92.290		
	Bi	209					
	Th	232			90.279		
	U	238			92.265		
	Na	23			102.129		
	Mg	24			100.084		
	K	39			103.602		
	Ca	44			104.210		
	Fe	54			99.635		
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-03 @5X

Sample Date/Time: Thursday, December 08, 2016 09:45:22
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-03 @5X.94721
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	1011.193	3.958	1011.193			ug/L
	Be	9	10.000	33.333	0.010	0.05979	33.63	ug/L
	Al	27	8232.086	2.188	0.063	3.10858	1.56	ug/L
>	Sc	45	108189.546	1.085	108189.546			ug/L
	V	51	1502.721	15.075	-0.003	-0.10404	62.86	ug/L
	Cr	52	4849.103	2.494	0.006	0.23652	9.97	ug/L
	Mn	55	1840019.445	1.147	16.984	429.11990	0.69	ug/L
	Co	59	6395.493	1.735	0.059	1.68742	1.04	ug/L
	Ni	60	337.389	10.429	0.002	0.26609	15.30	ug/L
	Cu	65	195.559	4.846	0.001	0.15532	7.64	ug/L
	Zn	66	33022.075	3.444	0.549	61.92706	2.14	ug/L
>	Ge	72	59834.536	1.498	59834.536			ug/L
	As	75	-73.635	209.267	0.002	0.13718	165.77	ug/L
	Se	82	37.334	56.066	0.001	0.46237	67.65	ug/L
	Y	89	379.456	11.674	369.456			ug/L
	Mo	98	797.030	6.428	0.002	0.39772	9.18	ug/L
	Ag	107	70.000	0.000	0.000	0.01756	2.34	ug/L
	Ag	109	59.445	28.084	0.000	0.01201	39.71	ug/L
	Cd	111	12.072	23.331	0.000	0.00940	36.62	ug/L
	Cd	114	15.318	169.879	0.000	0.00921	133.22	ug/L
>	In	115	303089.055	2.046	303089.055			ug/L
	Sb	121	546.135	2.596	0.002	0.18744	4.41	ug/L
	Ba	135	1037.308	4.768	0.003	1.51024	3.79	ug/L
>	Tb	159	339350.026	1.222	339350.026			ug/L
	Ho	165	14.444	13.323	0.000			ug/L
	Tl	205	268.895	14.274	-0.000	-0.00251	216.03	ug/L
	Pb	208	480.563	7.008	0.001	0.02119	19.64	ug/L
	Bi	209	1.667	100.000	0.000			ug/L
	Th	232	3150.241	7.838	0.009	0.28991	8.84	ug/L
	U	238	146.668	22.123	0.000	0.01098	24.57	ug/L
	Na	23	861485.481	2.406	7.890	0.39213	1.81	mg/L
	Mg	24	1560149.810	1.877	14.401	1.08294	0.99	mg/L
	K	39	879812.372	2.025	4.246	0.14144	2.48	mg/L
	Ca	44	2279997.772	1.652	21.040	23.65614	0.57	mg/L
	Fe	54	219353.222	1.118	1.888	0.91127	1.37	mg/L
>	Sc-1	45	108189.546	1.085	108189.546			mg/L
	Kr	83	39.445	34.414	-2.222			mg/L
	N	15	10979.688	8.985	793.604			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		117.269			
	Be	9					
	Al	27					
>	Sc	45		111.183			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		115.260			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		117.135			
	Sb	121					
	Ba	135					
>	Tb	159		113.093			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1612039-DUP1 @5X

Sample Date/Time: Thursday, December 08, 2016 09:48:26
Sample Type: Duplicate of 3
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1612039-DUP1 @5X.94722
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	995.079	5.781	995.079			ug/L
	Be	9	13.333	33.072	0.013	0.08110	32.60	ug/L
	Al	27	7067.886	3.143	0.051	2.51075	2.12	ug/L
>	Sc	45	110468.588	2.245	110468.588			ug/L
	V	51	1310.190	13.127	-0.005	-0.16694	30.00	ug/L
	Cr	52	4909.705	0.452	0.006	0.22333	16.31	ug/L
	Mn	55	1837654.270	0.628	16.616	419.81500	1.70	ug/L
	Co	59	6395.493	1.657	0.058	1.65275	1.00	ug/L
	Ni	60	77.740	48.204	-0.000	-0.03479	128.44	ug/L
	Cu	65	210.559	16.015	0.001	0.16585	18.04	ug/L
	Zn	66	32831.575	1.475	0.539	60.86667	2.19	ug/L
>	Ge	72	60543.576	2.046	60543.576			ug/L
	As	75	-140.952	18.367	0.000	0.03963	85.90	ug/L
	Se	82	29.222	59.560	0.000	0.33635	74.82	ug/L
	Y	89	410.569	4.809	400.569			ug/L
	Mo	98	619.970	4.877	0.002	0.29984	5.02	ug/L
	Ag	107	24.445	61.867	0.000	0.00450	92.63	ug/L
	Ag	109	30.000	9.623	0.000	0.00342	25.55	ug/L
	Cd	111	5.293	18.056	0.000	0.00154	72.03	ug/L
	Cd	114	-23.504	64.095	-0.000	-0.00912	77.91	ug/L
>	In	115	303857.934	1.547	303857.934			ug/L
	Sb	121	262.783	11.440	0.001	0.08526	12.15	ug/L
	Ba	135	1037.308	2.771	0.003	1.51793	1.78	ug/L
>	Tb	159	337695.481	1.518	337695.481			ug/L
	Ho	165	7.222	35.251	0.000			ug/L
	Tl	205	143.335	11.452	-0.000	-0.02034	10.20	ug/L
	Pb	208	378.893	10.858	0.000	0.01043	44.48	ug/L
	Bi	209	1.667	100.000	0.000			ug/L
	Th	232	1059.535	10.052	0.003	0.09450	9.09	ug/L
	U	238	80.001	3.608	0.000	0.00526	2.79	ug/L
	Na	23	851614.404	1.486	7.639	0.37967	2.73	mg/L
	Mg	24	1535568.169	0.846	13.888	1.04433	2.96	mg/L
	K	39	872483.973	0.933	4.014	0.13371	2.63	mg/L
	Ca	44	2245365.065	0.799	20.297	22.82118	1.63	mg/L
	Fe	54	218309.567	0.401	1.837	0.88674	2.03	mg/L
>	Sc-1	45	110468.588	2.245	110468.588			mg/L
	Kr	83	37.778	20.377	-3.889			mg/L
	N	15	10853.910	8.891	667.827			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6		115.401			
⌊	Be	9					30.247
⌈	Al	27					21.277
|>	Sc	45		113.525			
|	V	51					46.430
|	Cr	52					5.736
|	Mn	55					2.192
|	Co	59					2.076
|	Ni	60					260.167
⌊	Cu	65					6.554
⌈	Zn	66					1.727
|>	Ge	72		116.626			
|	As	75					110.343
⌊	Se	82					31.553
	Y	89					
⌈	Mo	98					28.064
|	Ag	107					118.336
|	Ag	109					111.389
|	Cd	111					143.599
|	Cd	114					40689.720
|>	In	115		117.433			
⌊	Sb	121					74.936
⌈	Ba	135					0.508
|>	Tb	159		112.542			
|	Ho	165					
|	Tl	205					156.026
|	Pb	208					68.005
|	Bi	209					
|	Th	232					101.670
⌊	U	238					70.395
⌈	Na	23					3.228
|	Mg	24					3.629
|	K	39					5.622
|	Ca	44					3.593
|	Fe	54					2.729
⌊>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-SRD1 @25X

Sample Date/Time: Thursday, December 08, 2016 09:51:31
Sample Type: Dilution - DF:5 of 3
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-SRD1 @25X.94723
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	941.738	7.628	941.738			ug/L
⌊	Be	9	3.333	50.000	0.003	0.02106	46.32	ug/L
⌈	Al	27	2489.385	2.781	0.010	0.51466	7.43	ug/L
|>	Sc	45	105718.905	1.037	105718.905			ug/L
|	V	51	1235.275	50.604	-0.006	-0.17205	108.42	ug/L
|	Cr	52	3796.709	2.196	-0.002	-0.09217	36.26	ug/L
|	Mn	55	348467.491	0.835	3.273	82.69640	0.82	ug/L
|	Co	59	1280.687	3.234	0.012	0.34277	2.29	ug/L
|	Ni	60	147.104	4.726	0.000	0.05044	17.38	ug/L
⌊	Cu	65	86.112	9.147	0.000	0.04394	19.05	ug/L
⌈	Zn	66	6463.898	2.424	0.107	12.12689	2.55	ug/L
|>	Ge	72	58408.901	1.071	58408.901			ug/L
|	As	75	-131.545	76.012	0.001	0.04674	318.46	ug/L
⌊	Se	82	31.111	39.064	0.000	0.37999	47.54	ug/L
	Y	89	90.556	15.653	80.556			ug/L
⌈	Mo	98	196.114	2.985	0.000	0.07177	6.91	ug/L
|	Ag	107	15.000	29.397	0.000	0.00194	62.57	ug/L
|	Ag	109	13.889	48.497	-0.000	-0.00119	165.19	ug/L
|	Cd	111	2.899	15.712	-0.000	-0.00114	44.76	ug/L
|	Cd	114	-31.939	57.259	-0.000	-0.01340	64.09	ug/L
|>	In	115	297359.497	1.571	297359.497			ug/L
⌊	Sb	121	159.446	5.757	0.000	0.04950	5.98	ug/L
⌈	Ba	135	200.559	5.896	0.001	0.28975	7.44	ug/L
|>	Tb	159	332099.021	1.253	332099.021			ug/L
|	Ho	165	2.222	43.301	0.000			ug/L
|	Tl	205	111.668	11.847	-0.001	-0.02460	7.27	ug/L
|	Pb	208	257.224	15.555	-0.000	-0.00225	202.95	ug/L
|	Bi	209	2.222	43.301	0.000			ug/L
|	Th	232	258.339	6.736	0.001	0.01964	7.16	ug/L
⌊	U	238	20.000	8.333	0.000	0.00008	194.20	ug/L
⌈	Na	23	168388.824	0.501	1.520	0.07556	1.36	mg/L
|	Mg	24	299170.567	2.191	2.811	0.21137	1.62	mg/L
|	K	39	499675.454	2.110	0.841	0.02801	9.89	mg/L
|	Ca	44	459443.606	1.148	4.312	4.84852	0.29	mg/L
|	Fe	54	54487.632	3.246	0.376	0.18144	4.62	mg/L
⌊>	Sc-1	45	105718.905	1.037	105718.905			mg/L
	Kr	83	41.667	18.330	-0.000			mg/L
	N	15	11210.128	11.210	1024.045			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6		109.215			
⌊	Be	9				76.069	
⌈	Al	27				17.219	
|>	Sc	45		108.644			
|	V	51				-726.882	
|	Cr	52				294.851	
|	Mn	55				3.644	
|	Co	59				1.567	
|	Ni	60				5.226	
⌊	Cu	65				41.462	
⌈	Zn	66				2.087	
|>	Ge	72		112.514			
|	As	75				70.374	
⌊	Se	82				310.918	
	Y	89					
⌈	Mo	98				9.772	
|	Ag	107				44.869	
|	Ag	109				149.645	
|	Cd	111				160.506	
|	Cd	114				827.800	
|>	In	115		114.921			
⌊	Sb	121				32.034	
⌈	Ba	135				4.072	
|>	Tb	159		110.676			
|	Ho	165					
|	Tl	205				-4795.589	
|	Pb	208				153.182	
|	Bi	209					
|	Th	232				66.132	
⌊	U	238				96.180	
⌈	Na	23				3.652	
|	Mg	24				2.408	
|	K	39				0.980	
|	Ca	44				2.479	
|	Fe	54				0.444	
⌊>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1612039-MS1 @5X

Sample Date/Time: Thursday, December 08, 2016 09:54:35
Sample Type: Spike - 3 of 3
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1612039-MS1 @5X.94724
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	997.302	2.623	997.302			ug/L
	Be	9	2929.575	1.600	2.940	17.78245	4.12	ug/L
	Al	27	4226980.867	0.514	38.351	1893.58572	0.39	ug/L
>	Sc	45	110183.908	0.834	110183.908			ug/L
	V	51	64084.501	2.555	0.564	17.53684	1.81	ug/L
	Cr	52	58168.896	0.945	0.490	18.07913	0.39	ug/L
	Mn	55	1888388.960	1.713	17.115	432.41001	0.98	ug/L
	Co	59	78357.030	0.692	0.711	20.34356	1.52	ug/L
	Ni	60	16176.214	1.050	0.146	18.20793	0.34	ug/L
	Cu	65	18460.561	1.487	0.167	18.73072	0.66	ug/L
	Zn	66	42780.414	2.404	0.704	79.48120	0.93	ug/L
>	Ge	72	60486.951	2.401	60486.951			ug/L
	As	75	12492.545	2.743	0.209	18.40289	1.27	ug/L
	Se	82	7151.794	3.023	0.118	102.83259	0.88	ug/L
	Y	89	387.234	5.416	377.234			ug/L
	Mo	98	32861.427	1.402	0.108	17.80364	1.47	ug/L
	Ag	107	63087.403	1.465	0.207	17.92084	1.53	ug/L
	Ag	109	61836.656	1.373	0.203	17.96572	1.89	ug/L
	Cd	111	16448.421	1.494	0.054	18.86000	1.55	ug/L
	Cd	114	39670.970	1.292	0.130	18.70589	1.53	ug/L
>	In	115	304384.806	2.346	304384.806			ug/L
	Sb	121	55169.713	2.013	0.181	19.73060	1.15	ug/L
	Ba	135	13857.569	1.167	0.040	20.15128	2.76	ug/L
>	Tb	159	342250.419	1.911	342250.419			ug/L
	Ho	165	17.778	27.063	0.000			ug/L
	Tl	205	122030.377	0.578	0.356	17.21883	1.64	ug/L
	Pb	208	162031.414	0.318	0.473	17.26619	2.12	ug/L
	Bi	209	6.111	110.221	0.000			ug/L
	Th	232	179432.969	1.541	0.524	16.64501	0.37	ug/L
	U	238	198371.494	1.324	0.580	16.99541	0.69	ug/L
	Na	23	5063683.753	1.103	45.883	2.28044	0.27	mg/L
	Mg	24	4335959.279	1.190	39.333	2.95781	0.82	mg/L
	K	39	7400455.230	1.362	63.278	2.10771	0.91	mg/L
	Ca	44	2416361.533	1.504	21.896	24.61902	0.83	mg/L
	Fe	54	659836.414	1.043	5.849	2.82299	0.86	mg/L
>	Sc-1	45	110183.908	0.834	110183.908			mg/L
	Kr	83	38.333	15.061	-3.333			mg/L
	N	15	11086.559	10.211	900.476			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		115.658			
	Be	9			17.723		
	Al	27			18.905		
>	Sc	45		113.232			
	V	51			17.641		
	Cr	52			17.843		
	Mn	55			3.290		
	Co	59			18.656		
	Ni	60			17.942		
	Cu	65			18.575		
	Zn	66					
>	Ge	72		116.517			
	As	75			18.266		
	Se	82			20.474		
	Y	89					
	Mo	98			17.406		
	Ag	107			17.903		
	Ag	109			17.954		
	Cd	111			18.851		
	Cd	114					
>	In	115		117.636			
	Sb	121			19.543		
	Ba	135			18.641		
>	Tb	159		114.060			
	Ho	165					
	Tl	205			17.221		
	Pb	208			17.245		
	Bi	209					
	Th	232			16.355		
	U	238			16.984		
	Na	23			18.883		
	Mg	24			18.749		
	K	39			19.663		
	Ca	44			9.629		
	Fe	54			19.117		
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-06 @5X

Sample Date/Time: Thursday, December 08, 2016 09:57:40
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-06 @5X.94725
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	1144.549	2.507	1144.549			ug/L
⌊	Be	9	16.111	26.034	0.014	0.08528	26.38	ug/L
⌈	Al	27	36866.693	26.138	0.316	15.58189	27.60	ug/L
|>	Sc	45	112221.326	0.593	112221.326			ug/L
|	V	51	1920.464	25.259	-0.000	-0.00340	4031.51	ug/L
|	Cr	52	4787.946	3.459	0.004	0.15691	28.88	ug/L
|	Mn	55	3661356.922	0.283	32.604	823.75166	0.60	ug/L
|	Co	59	21012.496	2.193	0.187	5.35335	2.38	ug/L
|	Ni	60	1685.547	5.670	0.014	1.75257	6.67	ug/L
⌊	Cu	65	622.809	6.804	0.005	0.57469	7.35	ug/L
⌈	Zn	66	58593.440	1.911	0.929	104.83481	1.83	ug/L
|>	Ge	72	62876.920	0.085	62876.920			ug/L
|	As	75	-109.071	53.986	0.001	0.09143	90.21	ug/L
⌊	Se	82	31.334	46.371	0.000	0.34995	57.47	ug/L
	Y	89	1505.181	1.453	1495.181			ug/L
⌈	Mo	98	204.326	5.997	0.000	0.07109	8.40	ug/L
|	Ag	107	36.111	21.318	0.000	0.00760	26.94	ug/L
|	Ag	109	49.445	34.431	0.000	0.00868	53.93	ug/L
|	Cd	111	22.971	26.005	0.000	0.02114	30.23	ug/L
|	Cd	114	-8.109	212.611	-0.000	-0.00172	460.53	ug/L
|>	In	115	311572.464	1.329	311572.464			ug/L
⌊	Sb	121	265.006	3.328	0.001	0.08376	4.67	ug/L
⌈	Ba	135	1014.527	1.118	0.003	1.44989	0.99	ug/L
|>	Tb	159	345728.829	1.956	345728.829			ug/L
|	Ho	165	38.333	21.739	0.000			ug/L
|	Tl	205	240.560	16.763	-0.000	-0.00712	86.39	ug/L
|	Pb	208	283.891	9.436	-0.000	-0.00055	569.42	ug/L
|	Bi	209	0.556	173.205	0.000			ug/L
|	Th	232	1461.282	1.394	0.004	0.12919	1.50	ug/L
⌊	U	238	107.223	5.885	0.000	0.00742	8.72	ug/L
⌈	Na	23	530822.465	0.169	4.658	0.23149	0.49	mg/L
|	Mg	24	4542767.117	1.595	40.462	3.04269	1.55	mg/L
|	K	39	1267077.437	1.873	7.405	0.24665	2.14	mg/L
|	Ca	44	3793502.261	1.054	33.770	37.96986	0.88	mg/L
|	Fe	54	340501.754	0.906	2.895	1.39708	0.33	mg/L
⌊>	Sc-1	45	112221.326	0.593	112221.326			mg/L
	Kr	83	40.000	20.833	-1.667			mg/L
	N	15	11153.346	10.284	967.263			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		132.735			
	Be	9					
	Al	27					
>	Sc	45		115.326			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		121.121			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		120.414			
	Sb	121					
	Ba	135					
>	Tb	159		115.219			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1612039-MS2 @5X

Sample Date/Time: Thursday, December 08, 2016 10:00:45
Sample Type: Spike - 3 of 7
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1612039-MS2 @5X.94726
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	1077.871	3.000	1077.871			ug/L
	Be	9	2810.632	0.942	2.609	15.78207	2.72	ug/L
	Al	27	4346685.214	2.038	38.776	1914.60022	1.09	ug/L
>	Sc	45	112051.129	0.966	112051.129			ug/L
	V	51	66171.369	0.838	0.573	17.81802	1.76	ug/L
	Cr	52	59473.301	0.654	0.492	18.18478	0.66	ug/L
	Mn	55	3675643.369	1.182	32.780	828.19771	0.31	ug/L
	Co	59	93909.167	0.732	0.838	23.97407	0.32	ug/L
	Ni	60	17762.032	1.570	0.158	19.66910	0.71	ug/L
	Cu	65	19114.743	1.063	0.170	19.07272	0.11	ug/L
	Zn	66	67714.366	1.813	1.090	123.01313	1.62	ug/L
>	Ge	72	61965.744	1.983	61965.744			ug/L
	As	75	12601.732	2.008	0.206	18.12450	0.40	ug/L
	Se	82	7401.536	1.912	0.119	103.89465	0.20	ug/L
	Y	89	1434.610	6.816	1424.610			ug/L
	Mo	98	33630.311	0.757	0.107	17.67396	1.09	ug/L
	Ag	107	64142.478	0.898	0.204	17.67414	0.89	ug/L
	Ag	109	62943.155	0.930	0.201	17.73833	1.27	ug/L
	Cd	111	16851.834	2.976	0.054	18.73870	1.35	ug/L
	Cd	114	40971.071	1.543	0.131	18.73859	1.10	ug/L
>	In	115	313763.808	1.686	313763.808			ug/L
	Sb	121	56425.860	2.076	0.180	19.57599	1.85	ug/L
	Ba	135	14073.050	0.998	0.040	20.08810	1.55	ug/L
>	Tb	159	348602.131	1.738	348602.131			ug/L
	Ho	165	30.000	25.459	0.000			ug/L
	Tl	205	122523.845	1.082	0.351	16.97244	1.83	ug/L
	Pb	208	162916.226	0.257	0.467	17.04303	1.95	ug/L
	Bi	209	2.778	34.641	0.000			ug/L
	Th	232	179678.765	1.528	0.515	16.36370	0.37	ug/L
	U	238	200634.084	0.961	0.576	16.87628	0.83	ug/L
	Na	23	4840734.054	0.580	43.130	2.14358	0.41	mg/L
	Mg	24	7276558.177	0.303	64.925	4.88232	1.11	mg/L
	K	39	7909110.192	1.871	66.698	2.22162	1.46	mg/L
	Ca	44	3902499.049	2.163	34.792	39.11833	1.22	mg/L
	Fe	54	794995.241	0.594	6.956	3.35709	0.76	mg/L
>	Sc-1	45	112051.129	0.966	112051.129			mg/L
	Kr	83	46.667	12.877	5.000			mg/L
	N	15	11227.396	12.127	1041.313			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6		125.002			
⌊	Be	9			15.697		
⌈	Al	27			18.990		
|>	Sc	45		115.151			
|	V	51			17.821		
|	Cr	52			18.028		
|	Mn	55			4.446		
|	Co	59			18.621		
|	Ni	60			17.917		
⌊	Cu	65			18.498		
⌈	Zn	66					
|>	Ge	72		119.366			
|	As	75			18.033		
⌊	Se	82			20.709		
	Y	89					
⌈	Mo	98			17.603		
|	Ag	107			17.667		
|	Ag	109			17.730		
|	Cd	111			18.718		
|	Cd	114					
|>	In	115		121.261			
⌊	Sb	121			19.492		
⌈	Ba	135			18.638		
|>	Tb	159		116.176			
|	Ho	165					
|	Tl	205			16.980		
|	Pb	208			17.044		
|	Bi	209					
|	Th	232			16.235		
⌊	U	238			16.869		
⌈	Na	23			19.121		
|	Mg	24			18.396		
|	K	39			19.750		
|	Ca	44			11.485		
|	Fe	54			19.600		
⌊>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-09 @5X

Sample Date/Time: Thursday, December 08, 2016 10:03:51
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-09 @5X.94727
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	1108.987	0.378	1108.987			ug/L
	Be	9	50.556	18.157	0.046	0.27569	17.89	ug/L
	Al	27	157022.049	1.114	1.370	67.65129	0.80	ug/L
>	Sc	45	113525.877	1.805	113525.877			ug/L
	V	51	1916.615	2.172	-0.000	-0.01107	88.91	ug/L
	Cr	52	5164.911	1.397	0.007	0.26170	2.67	ug/L
	Mn	55	3168625.150	0.910	27.893	704.73256	1.75	ug/L
	Co	59	19229.537	0.536	0.169	4.84349	2.15	ug/L
	Ni	60	994.581	8.659	0.008	0.97188	11.74	ug/L
	Cu	65	1410.715	2.861	0.012	1.34563	3.14	ug/L
	Zn	66	51147.950	2.244	0.807	91.09845	1.14	ug/L
>	Ge	72	63127.246	1.453	63127.246			ug/L
	As	75	-27.038	338.873	0.002	0.20657	61.54	ug/L
	Se	82	16.667	57.585	0.000	0.14703	91.46	ug/L
	Y	89	2262.632	3.523	2252.632			ug/L
	Mo	98	265.873	2.161	0.001	0.10113	4.69	ug/L
	Ag	107	37.778	15.494	0.000	0.00788	20.60	ug/L
	Ag	109	43.889	25.285	0.000	0.00688	42.84	ug/L
	Cd	111	26.526	10.926	0.000	0.02464	14.09	ug/L
	Cd	114	12.669	414.994	0.000	0.00765	309.04	ug/L
>	In	115	317541.049	1.308	317541.049			ug/L
	Sb	121	225.004	15.835	0.001	0.06819	16.70	ug/L
	Ba	135	1429.052	4.216	0.004	2.01086	2.99	ug/L
>	Tb	159	351768.136	1.836	351768.136			ug/L
	Ho	165	90.001	12.963	0.000			ug/L
	Tl	205	245.561	19.369	-0.000	-0.00700	100.44	ug/L
	Pb	208	440.006	7.827	0.000	0.01516	27.83	ug/L
	Bi	209	1.111	86.603	0.000			ug/L
	Th	232	1572.420	5.495	0.004	0.13689	5.20	ug/L
	U	238	87.778	5.481	0.000	0.00564	8.01	ug/L
	Na	23	589811.101	0.992	5.123	0.25464	1.21	mg/L
	Mg	24	3986688.077	1.016	35.104	2.63977	1.61	mg/L
	K	39	1337336.547	1.899	7.895	0.26298	2.09	mg/L
	Ca	44	3219708.430	0.774	28.331	31.85422	1.04	mg/L
	Fe	54	832982.419	0.518	7.200	3.47483	2.11	mg/L
>	Sc-1	45	113525.877	1.805	113525.877			mg/L
	Kr	83	44.445	28.395	2.778			mg/L
	N	15	11453.926	12.367	1267.843			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		128.611			
	Be	9					
	Al	27					
>	Sc	45		116.667			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		121.603			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		122.721			
	Sb	121					
	Ba	135					
>	Tb	159		117.231			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, December 08, 2016 10:06:57
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Blank.94728
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	895.064	3.889	895.064			ug/L
	Be	9	1.667	0.000	0.002	0.01128	3.97	ug/L
	Al	27	2507.170	4.220	0.010	0.51669	6.89	ug/L
>	Sc	45	106250.051	1.254	106250.051			ug/L
	V	51	1413.201	23.001	-0.004	-0.12162	82.81	ug/L
	Cr	52	3603.261	1.977	-0.004	-0.16614	12.76	ug/L
	Mn	55	2412.234	0.515	-0.000	-0.01253	43.63	ug/L
	Co	59	23.889	20.140	0.000	0.00267	45.96	ug/L
	Ni	60	147.813	12.262	0.000	0.05047	44.20	ug/L
	Cu	65	29.445	37.689	-0.000	-0.01626	72.42	ug/L
	Zn	66	113.890	4.471	-0.001	-0.14805	6.02	ug/L
>	Ge	72	58641.043	0.418	58641.043			ug/L
	As	75	-217.945	24.225	-0.001	-0.08260	94.56	ug/L
	Se	82	10.667	62.734	0.000	0.07475	133.47	ug/L
	Y	89	13.889	18.330	3.889			ug/L
	Mo	98	539.285	6.011	0.002	0.25898	6.84	ug/L
	Ag	107	21.667	7.692	0.000	0.00382	13.33	ug/L
	Ag	109	30.556	24.596	0.000	0.00366	58.90	ug/L
	Cd	111	4.778	84.011	0.000	0.00102	458.24	ug/L
	Cd	114	-39.568	68.946	-0.000	-0.01692	77.11	ug/L
>	In	115	300787.782	0.602	300787.782			ug/L
	Sb	121	150.557	2.304	0.000	0.04562	2.38	ug/L
	Ba	135	6.111	78.730	-0.000	-0.00206	343.01	ug/L
>	Tb	159	337464.517	0.408	337464.517			ug/L
	Ho	165	0.000		-0.000			ug/L
	Tl	205	134.446	6.240	-0.000	-0.02158	5.94	ug/L
	Pb	208	209.446	23.611	-0.000	-0.00789	68.34	ug/L
	Bi	209	0.000		0.000			ug/L
	Th	232	179.447	8.630	0.000	0.01183	11.80	ug/L
	U	238	16.667	17.321	-0.000	-0.00023	109.85	ug/L
	Na	23	3246.958	7.592	-0.042	-0.00209	5.07	mg/L
	Mg	24	3151.351	3.559	0.011	0.00081	9.27	mg/L
	K	39	420908.033	2.274	0.077	0.00256	157.71	mg/L
	Ca	44	4810.184	2.329	0.012	0.01309	13.95	mg/L
	Fe	54	15853.846	12.563	0.010	0.00466	183.93	mg/L
>	Sc-1	45	106250.051	1.254	106250.051			mg/L
	Kr	83	50.556	26.850	8.889			mg/L
	N	15	11954.882	12.888	1768.799			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		103.802			
	Be	9					
	Al	27					
>	Sc	45		109.190			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		112.961			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		116.246			
	Sb	121					
	Ba	135					
>	Tb	159		112.465			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-CCV

Sample Date/Time: Thursday, December 08, 2016 10:10:02
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCV.94729
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	857.281	2.168	857.281			ug/L
⌊	Be	9	6847.639	1.497	7.990	48.33359	2.55	ug/L
⌈	Al	27	501323.700	1.240	4.888	241.35853	2.15	ug/L
|>	Sc	45	102296.529	0.929	102296.529			ug/L
|	V	51	166249.468	1.291	1.608	49.97401	2.08	ug/L
|	Cr	52	143589.214	1.316	1.365	50.42718	1.94	ug/L
|	Mn	55	208003.305	1.244	2.010	50.78827	1.14	ug/L
|	Co	59	187545.042	0.198	1.833	52.44985	0.74	ug/L
|	Ni	60	41300.487	0.026	0.403	50.29130	0.91	ug/L
⌊	Cu	65	46816.946	1.674	0.457	51.24821	1.34	ug/L
⌈	Zn	66	25642.499	1.005	0.453	51.14577	1.29	ug/L
|>	Ge	72	56198.759	0.492	56198.759			ug/L
|	As	75	30896.428	1.272	0.553	48.58322	1.60	ug/L
⌊	Se	82	3327.014	3.479	0.059	51.45466	3.79	ug/L
	Y	89	23.333	18.898	13.333			ug/L
⌈	Mo	98	85387.044	0.448	0.303	50.01081	1.55	ug/L
|	Ag	107	164137.357	0.207	0.582	50.33998	1.17	ug/L
|	Ag	109	161749.064	0.149	0.574	50.74072	1.24	ug/L
|	Cd	111	40983.379	0.471	0.145	50.74005	1.44	ug/L
|	Cd	114	99072.418	0.737	0.351	50.43246	2.06	ug/L
|>	In	115	281924.299	1.342	281924.299			ug/L
⌊	Sb	121	131046.839	0.319	0.465	50.61725	1.64	ug/L
⌈	Ba	135	32716.518	0.296	0.102	50.66699	0.92	ug/L
|>	Tb	159	321381.598	0.727	321381.598			ug/L
|	Ho	165	17.222	39.111	0.000			ug/L
|	Tl	205	324932.492	0.069	1.010	48.89299	0.71	ug/L
|	Pb	208	432476.287	0.336	1.345	49.12261	0.89	ug/L
|	Bi	209	13.333	45.069	0.000			ug/L
|	Th	232	477496.808	0.970	1.486	47.17819	0.71	ug/L
⌊	U	238	524155.269	0.743	1.631	47.82454	1.25	ug/L
⌈	Na	23	10096265.712	1.572	98.628	4.90190	1.74	mg/L
|	Mg	24	6639189.612	0.935	64.890	4.87967	1.86	mg/L
|	K	39	15772344.236	0.862	150.313	5.00672	1.75	mg/L
|	Ca	44	451982.088	1.035	4.385	4.93014	1.01	mg/L
|	Fe	54	1048764.869	0.602	10.114	4.88122	1.49	mg/L
⌊>	Sc-1	45	102296.529	0.929	102296.529			mg/L
	Kr	83	38.889	37.444	-2.778			mg/L
	N	15	16428.811	4.107	6242.727			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		99.420			
	Be	9	96.667				
	Al	27	96.543				
>	Sc	45		105.127			
	V	51	99.948				
	Cr	52	100.854				
	Mn	55	101.577				
	Co	59	104.900				
	Ni	60	100.583				
	Cu	65	102.496				
	Zn	66	102.292				
>	Ge	72		108.257			
	As	75	97.166				
	Se	82	102.909				
	Y	89					
	Mo	98	100.022				
	Ag	107	100.680				
	Ag	109	101.481				
	Cd	111	101.480				
	Cd	114					
>	In	115		108.956			
	Sb	121	101.235				
	Ba	135	101.334				
>	Tb	159		107.105			
	Ho	165					
	Tl	205	97.786				
	Pb	208	98.245				
	Bi	209					
	Th	232	94.356				
	U	238	95.649				
	Na	23	98.038				
	Mg	24	97.593				
	K	39	100.134				
	Ca	44	98.603				
	Fe	54	97.624				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-CCB

Sample Date/Time: Thursday, December 08, 2016 10:13:20
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCB.94730
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	841.723	5.712	841.723			ug/L
	Be	9	1.667	100.000	0.002	0.01244	101.10	ug/L
	Al	27	1528.520	2.267	0.002	0.08624	18.06	ug/L
>	Sc	45	102767.466	0.592	102767.466			ug/L
	V	51	1147.746	27.221	-0.006	-0.18843	50.73	ug/L
	Cr	52	3513.209	0.950	-0.004	-0.15609	4.83	ug/L
	Mn	55	1792.097	5.742	-0.006	-0.14552	18.58	ug/L
	Co	59	28.333	15.563	0.000	0.00413	30.32	ug/L
	Ni	60	112.651	3.089	0.000	0.01353	25.36	ug/L
	Cu	65	51.111	13.576	0.000	0.00836	87.13	ug/L
	Zn	66	163.335	6.691	-0.000	-0.04289	44.44	ug/L
>	Ge	72	56828.912	1.765	56828.912			ug/L
	As	75	-149.828	29.942	0.000	0.01239	555.51	ug/L
	Se	82	25.778	50.833	0.000	0.30904	62.35	ug/L
	Y	89	11.667	37.796	1.667			ug/L
	Mo	98	130.001	13.868	0.000	0.03660	27.28	ug/L
	Ag	107	42.778	9.805	0.000	0.01031	12.09	ug/L
	Ag	109	37.222	20.681	0.000	0.00600	38.29	ug/L
	Cd	111	2.484	207.541	-0.000	-0.00156	395.00	ug/L
	Cd	114	-11.512	285.241	-0.000	-0.00368	440.44	ug/L
>	In	115	290758.945	0.448	290758.945			ug/L
	Sb	121	813.386	5.749	0.003	0.29575	5.91	ug/L
	Ba	135	8.889	39.031	0.000	0.00237	219.34	ug/L
>	Tb	159	328910.189	1.267	328910.189			ug/L
	Ho	165	1.111	86.603	0.000			ug/L
	Tl	205	301.674	10.232	0.000	0.00354	134.76	ug/L
	Pb	208	231.113	4.802	-0.000	-0.00489	31.57	ug/L
	Bi	209	1.111	86.603	0.000			ug/L
	Th	232	651.145	3.159	0.002	0.05783	4.63	ug/L
	U	238	58.334	7.559	0.000	0.00352	12.78	ug/L
	Na	23	8243.773	4.374	0.008	0.00038	45.79	mg/L
	Mg	24	2143.701	2.675	0.002	0.00014	30.08	mg/L
	K	39	432171.404	2.502	0.320	0.01065	29.53	mg/L
	Ca	44	3952.917	2.777	0.005	0.00543	26.01	mg/L
	Fe	54	14528.545	7.053	0.002	0.00090	516.37	mg/L
>	Sc-1	45	102767.466	0.592	102767.466			mg/L
	Kr	83	34.445	30.730	-7.222			mg/L
	N	15	11286.364	10.305	1100.281			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		97.616			
	Be	9					
	Al	27					
>	Sc	45		105.611			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		109.471			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		112.370			
	Sb	121					
	Ba	135					
>	Tb	159		109.614			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-12 @5X

Sample Date/Time: Thursday, December 08, 2016 10:16:40
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-12 @5X.94731
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	1030.641	2.035	1030.641			ug/L
	Be	9	51.667	5.587	0.050	0.30337	6.20	ug/L
	Al	27	3284799.481	1.996	28.466	1405.50766	0.33	ug/L
>	Sc	45	115342.636	1.996	115342.636			ug/L
	V	51	1383.937	30.651	-0.005	-0.16429	65.14	ug/L
	Cr	52	4289.805	1.685	-0.001	-0.04444	108.68	ug/L
	Mn	55	3631878.870	1.334	31.468	795.04731	0.84	ug/L
	Co	59	32944.949	1.598	0.286	8.16897	1.58	ug/L
	Ni	60	3267.750	2.840	0.027	3.41387	1.25	ug/L
	Cu	65	76854.153	1.518	0.666	74.64056	0.76	ug/L
	Zn	66	119482.539	3.099	1.857	209.67561	1.90	ug/L
>	Ge	72	64210.981	1.442	64210.981			ug/L
	As	75	-190.168	40.582	-0.000	-0.01746	627.40	ug/L
	Se	82	33.222	26.948	0.000	0.36553	31.75	ug/L
	Y	89	29754.001	1.553	29744.000			ug/L
	Mo	98	124.758	16.517	0.000	0.02677	45.34	ug/L
	Ag	107	38.889	21.141	0.000	0.00799	25.81	ug/L
	Ag	109	28.333	15.563	0.000	0.00244	46.24	ug/L
	Cd	111	1205.095	5.066	0.004	1.29757	3.23	ug/L
	Cd	114	2693.622	2.664	0.008	1.19875	0.72	ug/L
>	In	115	322930.607	2.581	322930.607			ug/L
	Sb	121	413.347	8.723	0.001	0.13042	7.71	ug/L
	Ba	135	243.894	11.462	0.001	0.32975	12.40	ug/L
>	Tb	159	356423.415	1.603	356423.415			ug/L
	Ho	165	1447.390	6.978	0.004			ug/L
	Tl	205	341.676	7.805	0.000	0.00557	75.22	ug/L
	Pb	208	1956.231	0.805	0.005	0.16994	2.13	ug/L
	Bi	209	1.111	86.603	0.000			ug/L
	Th	232	1636.328	13.563	0.004	0.14056	12.60	ug/L
	U	238	779.493	0.538	0.002	0.06246	2.19	ug/L
	Na	23	485401.121	0.641	4.137	0.20559	1.43	mg/L
	Mg	24	5197778.903	1.720	45.047	3.38746	0.30	mg/L
	K	39	1582885.700	1.824	9.838	0.32770	0.83	mg/L
	Ca	44	3239860.816	1.997	28.055	31.54446	0.19	mg/L
	Fe	54	1167375.272	1.815	9.982	4.81754	0.19	mg/L
>	Sc-1	45	115342.636	1.996	115342.636			mg/L
	Kr	83	46.667	12.877	5.000			mg/L
	N	15	11562.459	12.252	1376.375			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		119.525			
	Be	9					
	Al	27					
>	Sc	45		118.534			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		123.691			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		124.804			
	Sb	121					
	Ba	135					
>	Tb	159		118.783			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-15 @5X

Sample Date/Time: Thursday, December 08, 2016 10:19:46
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-15 @5X.94732
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	933.403	4.422	933.403			ug/L
	Be	9	4.444	21.651	0.005	0.02897	24.43	ug/L
	Al	27	22687.224	1.969	0.189	9.32076	1.82	ug/L
>	Sc	45	112366.106	0.455	112366.106			ug/L
	V	51	1808.947	30.738	-0.001	-0.03550	432.97	ug/L
	Cr	52	4985.321	0.319	0.006	0.21996	5.29	ug/L
	Mn	55	1944754.744	0.650	17.284	436.69703	0.69	ug/L
	Co	59	7512.847	1.964	0.067	1.90903	1.65	ug/L
	Ni	60	47.943	46.109	-0.001	-0.07003	35.30	ug/L
	Cu	65	430.570	5.037	0.003	0.38207	5.16	ug/L
	Zn	66	52003.816	1.378	0.828	93.48791	2.29	ug/L
>	Ge	72	62561.575	0.932	62561.575			ug/L
	As	75	-40.144	39.760	0.002	0.18768	11.74	ug/L
	Se	82	10.444	56.763	0.000	0.06098	133.77	ug/L
	Y	89	1046.754	3.943	1036.754			ug/L
	Mo	98	483.786	8.857	0.001	0.21541	9.45	ug/L
	Ag	107	19.444	4.949	0.000	0.00290	10.43	ug/L
	Ag	109	22.222	15.613	0.000	0.00090	106.81	ug/L
	Cd	111	67.750	3.053	0.000	0.07023	2.81	ug/L
	Cd	114	99.196	26.032	0.000	0.04693	24.69	ug/L
>	In	115	316239.994	0.779	316239.994			ug/L
	Sb	121	281.118	18.752	0.001	0.08794	20.87	ug/L
	Ba	135	2039.777	0.827	0.006	2.88184	0.77	ug/L
>	Tb	159	351011.613	1.131	351011.613			ug/L
	Ho	165	26.111	22.416	0.000			ug/L
	Tl	205	246.116	1.410	-0.000	-0.00692	10.73	ug/L
	Pb	208	5219.181	0.930	0.014	0.51261	2.17	ug/L
	Bi	209	2.222	86.603	0.000			ug/L
	Th	232	612.808	13.524	0.002	0.05034	13.96	ug/L
	U	238	388.901	3.041	0.001	0.03081	3.86	ug/L
	Na	23	463892.441	0.062	4.056	0.20158	0.45	mg/L
	Mg	24	3151246.669	0.913	28.025	2.10749	0.71	mg/L
	K	39	1341567.472	1.693	8.053	0.26825	1.98	mg/L
	Ca	44	3408843.661	0.507	30.303	34.07187	0.15	mg/L
	Fe	54	298017.097	1.574	2.513	1.21281	2.13	mg/L
>	Sc-1	45	112366.106	0.455	112366.106			mg/L
	Kr	83	52.222	8.032	10.556			mg/L
	N	15	11207.345	11.152	1021.261			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6		108.248			
⌊	Be	9					
⌈	Al	27					
|>	Sc	45		115.475			
|	V	51					
|	Cr	52					
|	Mn	55					
|	Co	59					
|	Ni	60					
⌊	Cu	65					
⌈	Zn	66					
|>	Ge	72		120.514			
|	As	75					
⌊	Se	82					
	Y	89					
⌈	Mo	98					
|	Ag	107					
|	Ag	109					
|	Cd	111					
|	Cd	114					
|>	In	115		122.218			
⌊	Sb	121					
⌈	Ba	135					
|>	Tb	159		116.979			
|	Ho	165					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					
⌈	Na	23					
|	Mg	24					
|	K	39					
|	Ca	44					
|	Fe	54					
⌊>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-18

Sample Date/Time: Thursday, December 08, 2016 10:22:50
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-18.94733
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	830.055	3.032	830.055			ug/L
	Be	9	2.222	114.564	0.003	0.01585	113.69	ug/L
	Al	27	42255.700	0.643	0.366	18.05371	0.49	ug/L
>	Sc	45	111561.324	0.450	111561.324			ug/L
	V	51	1880.006	43.327	-0.000	-0.01216	1867.71	ug/L
	Cr	52	4597.246	2.339	0.003	0.10324	31.76	ug/L
	Mn	55	23028.363	0.904	0.183	4.62931	1.51	ug/L
	Co	59	299.452	3.261	0.003	0.07303	3.17	ug/L
	Ni	60	-14.411	62.130	-0.001	-0.13949	7.22	ug/L
	Cu	65	688.371	1.588	0.006	0.64422	1.38	ug/L
	Zn	66	2453.259	1.334	0.036	4.11745	2.08	ug/L
>	Ge	72	61761.453	0.942	61761.453			ug/L
	As	75	-121.432	27.652	0.001	0.07085	69.37	ug/L
	Se	82	12.667	41.775	0.000	0.09491	79.04	ug/L
	Y	89	600.029	2.500	590.029			ug/L
	Mo	98	47.162	5.445	-0.000	-0.01244	10.83	ug/L
	Ag	107	24.444	7.873	0.000	0.00432	12.73	ug/L
	Ag	109	21.667	26.647	0.000	0.00077	203.35	ug/L
	Cd	111	14.657	40.864	0.000	0.01175	56.89	ug/L
	Cd	114	-17.460	139.715	-0.000	-0.00597	187.16	ug/L
>	In	115	314079.728	1.333	314079.728			ug/L
	Sb	121	343.898	4.398	0.001	0.11041	6.15	ug/L
	Ba	135	5478.513	2.986	0.016	7.73892	3.76	ug/L
>	Tb	159	351982.042	1.325	351982.042			ug/L
	Ho	165	22.778	4.225	0.000			ug/L
	Tl	205	142.224	14.558	-0.000	-0.02131	13.26	ug/L
	Pb	208	1348.392	1.829	0.003	0.10939	3.97	ug/L
	Bi	209	12.778	58.816	0.000			ug/L
	Th	232	182.225	7.779	0.000	0.01138	9.64	ug/L
	U	238	28.333	31.127	0.000	0.00067	104.69	ug/L
	Na	23	1043505.556	1.853	9.282	0.46130	2.23	mg/L
	Mg	24	633639.876	1.665	5.661	0.42571	2.06	mg/L
	K	39	540579.726	1.318	0.960	0.03198	6.01	mg/L
	Ca	44	540024.023	0.945	4.807	5.40497	1.34	mg/L
	Fe	54	24680.608	5.886	0.082	0.03946	16.27	mg/L
>	Sc-1	45	111561.324	0.450	111561.324			mg/L
	Kr	83	43.889	8.770	2.222			mg/L
	N	15	8611.582	15.734	-1574.501			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		96.263			
	Be	9					
	Al	27					
>	Sc	45		114.648			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		118.972			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		121.383			
	Sb	121					
	Ba	135					
>	Tb	159		117.303			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-21

Sample Date/Time: Thursday, December 08, 2016 10:25:55
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-21.94734
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	862.837	5.493	862.837			ug/L
	Be	9	3.333	0.000	0.004	0.02342	5.62	ug/L
	Al	27	11442.140	3.636	0.092	4.51954	4.73	ug/L
>	Sc	45	109340.936	0.515	109340.936			ug/L
	V	51	2402.821	26.906	0.005	0.14761	126.51	ug/L
	Cr	52	7461.674	1.517	0.030	1.10189	4.61	ug/L
	Mn	55	-110.633	270.947	-0.024	-0.61157	11.34	ug/L
	Co	59	121.668	8.219	0.001	0.02807	8.74	ug/L
	Ni	60	-276.129	20.637	-0.004	-0.43888	15.16	ug/L
	Cu	65	356.121	4.961	0.003	0.31777	6.29	ug/L
	Zn	66	901.176	2.695	0.012	1.32138	4.89	ug/L
>	Ge	72	60267.565	1.642	60267.565			ug/L
	As	75	-140.638	58.204	0.000	0.03935	299.43	ug/L
	Se	82	20.222	33.875	0.000	0.20721	45.87	ug/L
	Y	89	85.001	8.986	75.001			ug/L
	Mo	98	202.165	12.199	0.000	0.07136	15.91	ug/L
	Ag	107	25.556	39.311	0.000	0.00475	56.95	ug/L
	Ag	109	16.111	15.802	-0.000	-0.00067	121.88	ug/L
	Cd	111	6.385	19.200	0.000	0.00270	47.50	ug/L
	Cd	114	-5.734	633.046	-0.000	-0.00053	3201.19	ug/L
>	In	115	307155.109	1.846	307155.109			ug/L
	Sb	121	202.781	1.711	0.001	0.06303	3.09	ug/L
	Ba	135	22792.040	0.769	0.066	32.78587	1.33	ug/L
>	Tb	159	345969.435	1.032	345969.435			ug/L
	Ho	165	4.444	43.301	0.000			ug/L
	Tl	205	123.335	28.762	-0.000	-0.02358	21.83	ug/L
	Pb	208	284.447	7.912	-0.000	-0.00052	505.12	ug/L
	Bi	209	1.667	100.000	0.000			ug/L
	Th	232	82.223	12.385	0.000	0.00249	35.62	ug/L
	U	238	432.793	7.933	0.001	0.03501	8.58	ug/L
	Na	23	1696898.844	0.595	15.447	0.76774	1.09	mg/L
	Mg	24	1000653.619	0.411	9.133	0.68680	0.90	mg/L
	K	39	1117928.733	0.611	6.339	0.21114	1.32	mg/L
	Ca	44	1642862.405	0.393	14.992	16.85603	0.39	mg/L
	Fe	54	11455.414	14.606	-0.035	-0.01673	45.72	mg/L
>	Sc-1	45	109340.936	0.515	109340.936			mg/L
	Kr	83	48.334	27.586	6.667			mg/L
	N	15	8740.107	16.562	-1445.976			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		100.064			
	Be	9					
	Al	27					
>	Sc	45		112.366			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		116.095			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		118.707			
	Sb	121					
	Ba	135					
>	Tb	159		115.299			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-24

Sample Date/Time: Thursday, December 08, 2016 10:29:00
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-24.94735
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	810.053	4.115	810.053			ug/L
	Be	9	1.667	100.000	0.002	0.01264	102.81	ug/L
	Al	27	4616.151	4.803	0.029	1.44831	8.49	ug/L
>	Sc	45	108763.840	1.154	108763.840			ug/L
	V	51	1961.863	12.150	0.001	0.02535	292.25	ug/L
	Cr	52	4540.539	2.902	0.003	0.12346	45.11	ug/L
	Mn	55	-2476.556	7.322	-0.046	-1.16137	3.39	ug/L
	Co	59	163.335	7.358	0.001	0.03919	6.88	ug/L
	Ni	60	-527.017	7.308	-0.006	-0.72868	6.80	ug/L
	Cu	65	320.564	6.625	0.003	0.28304	7.97	ug/L
	Zn	66	799.498	24.282	0.010	1.14851	30.76	ug/L
>	Ge	72	59464.902	1.089	59464.902			ug/L
	As	75	-167.453	9.076	-0.000	-0.00349	576.35	ug/L
	Se	82	14.667	52.075	0.000	0.13119	86.25	ug/L
	Y	89	87.778	9.366	77.778			ug/L
	Mo	98	104.202	9.503	0.000	0.01902	28.08	ug/L
	Ag	107	13.333	33.072	0.000	0.00136	92.97	ug/L
	Ag	109	17.778	44.305	-0.000	-0.00019	1150.11	ug/L
	Cd	111	4.719	47.156	0.000	0.00085	299.42	ug/L
	Cd	114	-15.198	257.187	-0.000	-0.00509	360.88	ug/L
>	In	115	306009.275	1.067	306009.275			ug/L
	Sb	121	145.002	11.321	0.000	0.04269	12.76	ug/L
	Ba	135	23279.952	1.821	0.067	33.29928	2.14	ug/L
>	Tb	159	347925.643	0.800	347925.643			ug/L
	Ho	165	3.333	86.603	0.000			ug/L
	Tl	205	131.112	4.813	-0.000	-0.02262	4.50	ug/L
	Pb	208	206.112	16.579	-0.000	-0.00891	42.20	ug/L
	Bi	209	1.111	173.205	0.000			ug/L
	Th	232	72.778	9.255	0.000	0.00159	37.32	ug/L
	U	238	542.801	7.710	0.002	0.04405	7.54	ug/L
	Na	23	1956423.434	0.484	17.916	0.89045	0.76	mg/L
	Mg	24	1136943.804	1.844	10.434	0.78462	0.72	mg/L
	K	39	1161061.468	0.307	6.791	0.22619	1.97	mg/L
	Ca	44	2124905.698	0.727	19.506	21.93188	1.88	mg/L
	Fe	54	10755.858	13.099	-0.040	-0.01954	34.81	mg/L
>	Sc-1	45	108763.840	1.154	108763.840			mg/L
	Kr	83	51.111	9.413	9.445			mg/L
	N	15	8554.282	15.910	-1631.801			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6		93.943			
⌊	Be	9					
⌈	Al	27					
|>	Sc	45		111.773			
|	V	51					
|	Cr	52					
|	Mn	55					
|	Co	59					
|	Ni	60					
⌊	Cu	65					
⌈	Zn	66					
|>	Ge	72		114.548			
|	As	75					
⌊	Se	82					
	Y	89					
⌈	Mo	98					
|	Ag	107					
|	Ag	109					
|	Cd	111					
|	Cd	114					
|>	In	115		118.264			
⌊	Sb	121					
⌈	Ba	135					
|>	Tb	159		115.951			
|	Ho	165					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					
⌈	Na	23					
|	Mg	24					
|	K	39					
|	Ca	44					
|	Fe	54					
⌊>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-27

Sample Date/Time: Thursday, December 08, 2016 10:32:05
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-27.94736
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	837.278	2.591	837.278			ug/L
⌊	Be	9	0.000		0.000	0.00000		ug/L
⌈	Al	27	5622.574	16.614	0.040	1.96224	21.12	ug/L
|>	Sc	45	106269.772	0.809	106269.772			ug/L
|	V	51	2962.906	13.868	0.011	0.33033	35.25	ug/L
|	Cr	52	7458.893	0.917	0.032	1.17383	3.78	ug/L
|	Mn	55	-2530.371	5.811	-0.047	-1.18765	2.63	ug/L
|	Co	59	159.446	8.449	0.001	0.03916	8.65	ug/L
|	Ni	60	-499.760	8.299	-0.006	-0.71040	6.45	ug/L
⌊	Cu	65	278.340	12.287	0.002	0.24635	15.31	ug/L
⌈	Zn	66	636.699	4.720	0.008	0.86024	5.87	ug/L
|>	Ge	72	58546.836	0.615	58546.836			ug/L
|	As	75	-98.177	137.832	0.001	0.09588	212.63	ug/L
⌊	Se	82	23.000	33.207	0.000	0.25781	43.44	ug/L
	Y	89	85.001	17.428	75.001			ug/L
⌈	Mo	98	80.746	7.574	0.000	0.00689	45.48	ug/L
|	Ag	107	16.111	47.781	0.000	0.00221	102.38	ug/L
|	Ag	109	15.556	6.186	-0.000	-0.00076	43.67	ug/L
|	Cd	111	3.698	137.275	-0.000	-0.00031	1858.98	ug/L
|	Cd	114	-42.959	22.718	-0.000	-0.01842	24.29	ug/L
|>	In	115	302176.621	1.206	302176.621			ug/L
⌊	Sb	121	137.224	11.220	0.000	0.04053	12.37	ug/L
⌈	Ba	135	23228.645	1.222	0.068	33.66249	1.37	ug/L
|>	Tb	159	343423.130	1.540	343423.130			ug/L
|	Ho	165	5.000	33.333	0.000			ug/L
|	Tl	205	107.223	28.037	-0.001	-0.02571	17.14	ug/L
|	Pb	208	242.224	9.493	-0.000	-0.00479	54.28	ug/L
|	Bi	209	1.111	173.205	0.000			ug/L
|	Th	232	61.667	21.109	0.000	0.00063	174.37	ug/L
⌊	U	238	530.578	4.911	0.001	0.04364	6.37	ug/L
⌈	Na	23	1890108.943	1.874	17.714	0.88039	1.94	mg/L
|	Mg	24	1116342.238	1.680	10.487	0.78862	2.42	mg/L
|	K	39	1144391.295	0.696	6.884	0.22929	1.79	mg/L
|	Ca	44	2087072.191	1.430	19.607	22.04530	1.80	mg/L
|	Fe	54	10420.258	12.674	-0.041	-0.01996	32.06	mg/L
⌊>	Sc-1	45	106269.772	0.809	106269.772			mg/L
	Kr	83	51.111	24.905	9.445			mg/L
	N	15	8482.498	14.334	-1703.586			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		97.100			
	Be	9					
	Al	27					
>	Sc	45		109.210			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		112.780			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		116.783			
	Sb	121					
	Ba	135					
>	Tb	159		114.450			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-30

Sample Date/Time: Thursday, December 08, 2016 10:35:09
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-30.94737
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	869.505	8.357	869.505			ug/L
⌊	Be	9	1.667	100.000	0.002	0.01164	104.87	ug/L
⌈	Al	27	10280.672	1.618	0.080	3.95681	1.59	ug/L
|>	Sc	45	110236.567	1.376	110236.567			ug/L
|	V	51	1745.968	26.399	-0.001	-0.04274	312.66	ug/L
|	Cr	52	6020.678	2.915	0.016	0.59885	11.78	ug/L
|	Mn	55	-1329.847	21.547	-0.035	-0.89042	6.95	ug/L
|	Co	59	258.339	6.797	0.002	0.06334	8.65	ug/L
|	Ni	60	-432.198	24.541	-0.005	-0.61242	19.12	ug/L
⌊	Cu	65	946.739	7.937	0.008	0.91580	9.27	ug/L
⌈	Zn	66	4255.893	0.707	0.067	7.57772	2.17	ug/L
|>	Ge	72	60486.325	1.555	60486.325			ug/L
|	As	75	-87.133	112.841	0.001	0.11587	126.00	ug/L
⌊	Se	82	36.556	29.084	0.001	0.44162	33.95	ug/L
	Y	89	607.807	3.939	597.807			ug/L
⌈	Mo	98	27.717	40.122	-0.000	-0.02239	26.44	ug/L
|	Ag	107	11.111	43.301	0.000	0.00071	190.80	ug/L
|	Ag	109	19.444	13.093	0.000	0.00027	283.95	ug/L
|	Cd	111	30.091	24.624	0.000	0.02950	27.10	ug/L
|	Cd	114	45.707	39.998	0.000	0.02334	37.51	ug/L
|>	In	115	307865.008	1.650	307865.008			ug/L
⌊	Sb	121	145.557	7.624	0.000	0.04258	7.63	ug/L
⌈	Ba	135	9773.193	2.142	0.028	13.93412	0.76	ug/L
|>	Tb	159	348849.788	1.416	348849.788			ug/L
|	Ho	165	28.889	23.316	0.000			ug/L
|	Tl	205	108.334	12.016	-0.001	-0.02584	6.22	ug/L
|	Pb	208	288.336	7.008	-0.000	-0.00038	524.13	ug/L
|	Bi	209	3.889	24.744	0.000			ug/L
|	Th	232	169.447	28.884	0.000	0.01033	41.44	ug/L
⌊	U	238	20.556	24.771	0.000	0.00004	987.05	ug/L
⌈	Na	23	917749.703	2.250	8.252	0.41014	1.19	mg/L
|	Mg	24	1967208.428	1.754	17.826	1.34048	0.38	mg/L
|	K	39	1364280.274	2.456	8.490	0.28279	2.49	mg/L
|	Ca	44	2447602.307	0.471	22.172	24.92977	1.46	mg/L
|	Fe	54	11471.514	9.722	-0.035	-0.01706	32.04	mg/L
⌊>	Sc-1	45	110236.567	1.376	110236.567			mg/L
	Kr	83	55.000	21.212	13.333			mg/L
	N	15	8651.602	12.524	-1534.481			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		100.838			
	Be	9					
	Al	27					
>	Sc	45		113.286			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		116.516			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		118.981			
	Sb	121					
	Ba	135					
>	Tb	159		116.259			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-33

Sample Date/Time: Thursday, December 08, 2016 10:38:14
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-33.94738
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	837.834	4.817	837.834			ug/L
	Be	9	0.000		0.000	0.00000		ug/L
	Al	27	9982.970	2.512	0.082	4.05753	3.74	ug/L
>	Sc	45	104765.811	0.825	104765.811			ug/L
	V	51	1661.223	35.096	-0.001	-0.04205	422.54	ug/L
	Cr	52	4252.558	3.347	0.002	0.08083	77.73	ug/L
	Mn	55	11097.014	3.173	0.083	2.09035	4.66	ug/L
	Co	59	159.446	11.749	0.001	0.03981	13.78	ug/L
	Ni	60	68.475	54.113	-0.000	-0.04153	107.86	ug/L
	Cu	65	1138.437	2.591	0.010	1.17078	3.38	ug/L
	Zn	66	922.290	6.194	0.013	1.43829	9.19	ug/L
>	Ge	72	57700.149	1.262	57700.149			ug/L
	As	75	155.206	66.034	0.005	0.48005	32.43	ug/L
	Se	82	3.222	549.779	-0.000	-0.03446	781.59	ug/L
	Y	89	70.556	14.433	60.556			ug/L
	Mo	98	241.489	8.368	0.001	0.09704	12.47	ug/L
	Ag	107	15.000	40.062	0.000	0.00194	88.92	ug/L
	Ag	109	15.556	6.186	-0.000	-0.00069	46.26	ug/L
	Cd	111	7.263	34.394	0.000	0.00397	71.03	ug/L
	Cd	114	-6.150	819.004	-0.000	-0.00131	1844.98	ug/L
>	In	115	297250.412	1.989	297250.412			ug/L
	Sb	121	431.682	6.214	0.001	0.14921	5.17	ug/L
	Ba	135	4486.054	0.521	0.013	6.62384	2.16	ug/L
>	Tb	159	336692.077	2.410	336692.077			ug/L
	Ho	165	3.889	49.487	0.000			ug/L
	Tl	205	120.001	18.056	-0.000	-0.02357	14.32	ug/L
	Pb	208	1240.604	5.402	0.003	0.10416	9.43	ug/L
	Bi	209	3.333	86.603	0.000			ug/L
	Th	232	130.001	36.103	0.000	0.00714	57.27	ug/L
	U	238	44.445	4.330	0.000	0.00219	9.52	ug/L
	Na	23	432656.458	1.059	4.058	0.20166	1.87	mg/L
	Mg	24	1289120.939	1.785	12.287	0.92400	2.52	mg/L
	K	39	1834080.896	0.394	13.622	0.45372	0.87	mg/L
	Ca	44	1314073.330	1.808	12.511	14.06686	2.56	mg/L
	Fe	54	13679.686	7.488	-0.009	-0.00428	118.99	mg/L
>	Sc-1	45	104765.811	0.825	104765.811			mg/L
	Kr	83	60.556	20.288	18.889			mg/L
	N	15	8486.377	12.880	-1699.707			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		97.165			
	Be	9					
	Al	27					
>	Sc	45		107.664			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		111.149			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		114.879			
	Sb	121					
	Ba	135					
>	Tb	159		112.207			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-36

Sample Date/Time: Thursday, December 08, 2016 10:41:19
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-36.94739
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	818.943	5.612	818.943			ug/L
	Be	9	2.222	43.301	0.003	0.01667	48.58	ug/L
	Al	27	791.161	6.769	-0.005	-0.27076	11.28	ug/L
>	Sc	45	103586.465	1.390	103586.465			ug/L
	V	51	1173.631	23.792	-0.006	-0.18383	45.27	ug/L
	Cr	52	3902.329	1.809	-0.001	-0.02692	163.90	ug/L
	Mn	55	1625.134	14.923	-0.007	-0.18924	33.93	ug/L
	Co	59	32.778	2.936	0.000	0.00530	3.85	ug/L
	Ni	60	108.306	3.078	0.000	0.00721	40.93	ug/L
	Cu	65	119.446	14.253	0.001	0.08188	22.40	ug/L
	Zn	66	665.591	7.889	0.009	0.97220	11.72	ug/L
>	Ge	72	56118.042	0.664	56118.042			ug/L
	As	75	-90.305	29.128	0.001	0.10249	40.35	ug/L
	Se	82	30.445	36.908	0.000	0.38861	45.23	ug/L
	Y	89	10.000	44.096	0.000			ug/L
	Mo	98	11.606	79.252	-0.000	-0.03050	17.53	ug/L
	Ag	107	16.111	26.034	0.000	0.00250	50.55	ug/L
	Ag	109	12.222	20.830	-0.000	-0.00150	52.00	ug/L
	Cd	111	1.071	244.018	-0.000	-0.00321	100.31	ug/L
	Cd	114	-9.064	416.069	-0.000	-0.00268	712.97	ug/L
>	In	115	283379.863	0.423	283379.863			ug/L
	Sb	121	85.556	18.412	0.000	0.02399	25.04	ug/L
	Ba	135	26.111	38.475	0.000	0.02890	51.88	ug/L
>	Tb	159	324476.935	1.033	324476.935			ug/L
	Ho	165	0.556	173.205	-0.000			ug/L
	Tl	205	96.667	15.802	-0.001	-0.02644	8.76	ug/L
	Pb	208	188.890	11.516	-0.000	-0.00930	26.77	ug/L
	Bi	209	2.222	114.564	0.000			ug/L
	Th	232	27.222	15.408	-0.000	-0.00239	18.03	ug/L
	U	238	1.667	100.000	-0.000	-0.00153	9.94	ug/L
	Na	23	12805.884	0.891	0.051	0.00254	4.06	mg/L
	Mg	24	2055.894	3.350	0.001	0.00007	86.85	mg/L
	K	39	464312.542	0.096	0.597	0.01990	10.35	mg/L
	Ca	44	11630.257	1.573	0.079	0.08844	4.03	mg/L
	Fe	54	10320.308	12.762	-0.040	-0.01920	34.04	mg/L
>	Sc-1	45	103586.465	1.390	103586.465			mg/L
	Kr	83	41.111	27.595	-0.556			mg/L
	N	15	8461.343	12.904	-1724.741			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		94.974			
	Be	9					
	Al	27					
>	Sc	45		106.452			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		108.101			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		109.518			
	Sb	121					
	Ba	135					
>	Tb	159		108.136			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-39

Sample Date/Time: Thursday, December 08, 2016 10:44:24
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1612039
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-39.94740
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	966.186	6.027	966.186			ug/L
⌊	Be	9	1.111	173.205	0.001	0.00660	173.21	ug/L
⌈	Al	27	11008.576	0.757	0.088	4.34669	2.85	ug/L
|>	Sc	45	108864.736	2.402	108864.736			ug/L
|	V	51	1702.108	13.276	-0.002	-0.04973	131.59	ug/L
|	Cr	52	5196.048	0.775	0.009	0.34489	14.33	ug/L
|	Mn	55	1319.404	21.360	-0.011	-0.27906	25.75	ug/L
|	Co	59	328.342	6.715	0.003	0.08256	7.39	ug/L
|	Ni	60	-679.727	1.066	-0.007	-0.90336	2.86	ug/L
⌊	Cu	65	913.400	3.884	0.008	0.89329	4.36	ug/L
⌈	Zn	66	20509.162	2.221	0.345	39.00068	1.10	ug/L
|>	Ge	72	58808.741	1.193	58808.741			ug/L
|	As	75	-139.821	34.096	0.000	0.03485	205.14	ug/L
⌊	Se	82	22.778	37.434	0.000	0.25404	50.48	ug/L
	Y	89	170.558	2.459	160.558			ug/L
⌈	Mo	98	497.501	2.442	0.001	0.23648	4.34	ug/L
|	Ag	107	11.667	37.796	0.000	0.00095	135.32	ug/L
|	Ag	109	12.778	39.849	-0.000	-0.00157	91.40	ug/L
|	Cd	111	60.012	40.199	0.000	0.06510	42.85	ug/L
|	Cd	114	165.466	10.768	0.001	0.08103	11.21	ug/L
|>	In	115	300398.681	1.544	300398.681			ug/L
⌊	Sb	121	115.001	5.225	0.000	0.03281	7.20	ug/L
⌈	Ba	135	11262.364	2.387	0.034	16.75096	2.27	ug/L
|>	Tb	159	334493.495	1.626	334493.495			ug/L
|	Ho	165	6.667	50.000	0.000			ug/L
|	Tl	205	115.557	7.944	-0.000	-0.02412	6.59	ug/L
|	Pb	208	475.007	7.599	0.001	0.02135	22.04	ug/L
|	Bi	209	1.111	86.603	0.000			ug/L
|	Th	232	282.784	14.064	0.001	0.02176	15.42	ug/L
⌊	U	238	130.001	10.494	0.000	0.00971	12.33	ug/L
⌈	Na	23	2814325.505	1.479	25.793	1.28194	3.57	mg/L
|	Mg	24	3722239.244	0.602	34.189	2.57096	2.97	mg/L
|	K	39	1612262.176	0.999	10.928	0.36401	2.43	mg/L
|	Ca	44	4461605.274	0.643	40.967	46.06185	2.75	mg/L
|	Fe	54	11097.984	12.156	-0.037	-0.01806	37.24	mg/L
⌊>	Sc-1	45	108864.736	2.402	108864.736			mg/L
	Kr	83	52.778	9.648	11.111			mg/L
	N	15	8753.982	13.817	-1432.101			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		112.050			
	Be	9					
	Al	27					
>	Sc	45		111.877			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		113.284			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		116.096			
	Sb	121					
	Ba	135					
>	Tb	159		111.474			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-CCV

Sample Date/Time: Thursday, December 08, 2016 10:47:29
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCV.94741
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	797.273	7.243	797.273			ug/L
	Be	9	6909.929	1.223	8.693	52.58377	6.11	ug/L
	Al	27	478340.813	3.128	5.005	247.14629	3.09	ug/L
>	Sc	45	95314.069	0.448	95314.069			ug/L
	V	51	156246.373	0.132	1.622	50.40722	0.43	ug/L
	Cr	52	135717.395	1.592	1.385	51.16915	1.39	ug/L
	Mn	55	195768.204	0.462	2.031	51.30754	0.16	ug/L
	Co	59	174463.180	0.499	1.830	52.36316	0.05	ug/L
	Ni	60	38479.279	0.388	0.403	50.28689	0.84	ug/L
	Cu	65	43159.629	1.004	0.452	50.70559	0.92	ug/L
	Zn	66	23989.844	0.866	0.457	51.61654	1.13	ug/L
>	Ge	72	52100.143	0.281	52100.143			ug/L
	As	75	29208.784	1.553	0.563	49.53585	1.52	ug/L
	Se	82	3092.112	3.653	0.059	51.57982	3.65	ug/L
	Y	89	13.889	6.928	3.889			ug/L
	Mo	98	78666.251	0.617	0.302	49.96900	0.26	ug/L
	Ag	107	153578.582	1.031	0.591	51.08407	0.67	ug/L
	Ag	109	149532.731	0.800	0.575	50.87596	1.03	ug/L
	Cd	111	37999.942	1.383	0.146	51.02605	1.72	ug/L
	Cd	114	91705.639	0.846	0.353	50.62779	1.26	ug/L
>	In	115	259915.362	0.417	259915.362			ug/L
	Sb	121	122341.506	1.439	0.471	51.25142	1.86	ug/L
	Ba	135	30384.234	0.459	0.103	51.13309	1.40	ug/L
>	Tb	159	295766.388	1.054	295766.388			ug/L
	Ho	165	15.556	44.607	0.000			ug/L
	Tl	205	306187.469	0.368	1.034	50.06582	1.19	ug/L
	Pb	208	406584.108	0.452	1.374	50.18525	1.51	ug/L
	Bi	209	17.222	49.661	0.000			ug/L
	Th	232	448907.884	1.431	1.518	48.20204	2.34	ug/L
	U	238	495503.189	0.825	1.675	49.12807	1.57	ug/L
	Na	23	9672506.823	2.818	101.402	5.03975	2.43	mg/L
	Mg	24	6482096.181	2.982	67.988	5.11264	2.89	mg/L
	K	39	14824437.282	2.296	151.646	5.05113	2.27	mg/L
	Ca	44	426644.615	1.316	4.442	4.99493	0.93	mg/L
	Fe	54	1001339.407	1.665	10.366	5.00294	1.24	mg/L
>	Sc-1	45	95314.069	0.448	95314.069			mg/L
	Kr	83	34.445	27.514	-7.222			mg/L
	N	15	15798.861	4.667	5612.778			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		92.461			
	Be	9	105.168				
	Al	27	98.859				
>	Sc	45		97.951			
	V	51	100.814				
	Cr	52	102.338				
	Mn	55	102.615				
	Co	59	104.726				
	Ni	60	100.574				
	Cu	65	101.411				
	Zn	66	103.233				
>	Ge	72		100.361			
	As	75	99.072				
	Se	82	103.160				
	Y	89					
	Mo	98	99.938				
	Ag	107	102.168				
	Ag	109	101.752				
	Cd	111	102.052				
	Cd	114					
>	In	115		100.450			
	Sb	121	102.503				
	Ba	135	102.266				
>	Tb	159		98.568			
	Ho	165					
	Tl	205	100.132				
	Pb	208	100.370				
	Bi	209					
	Th	232	96.404				
	U	238	98.256				
	Na	23	100.795				
	Mg	24	102.253				
	K	39	101.023				
	Ca	44	99.899				
	Fe	54	100.059				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-CCB

Sample Date/Time: Thursday, December 08, 2016 10:50:47
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCB.94742
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	782.271	9.532	782.271			ug/L
	Be	9	0.556	173.205	0.001	0.00469	173.21	ug/L
	Al	27	1407.381	2.585	0.001	0.07165	29.22	ug/L
>	Sc	45	96549.516	0.936	96549.516			ug/L
	V	51	1050.013	73.450	-0.006	-0.19717	127.00	ug/L
	Cr	52	3336.448	5.607	-0.004	-0.14197	56.98	ug/L
	Mn	55	1609.958	4.210	-0.007	-0.16486	11.05	ug/L
	Co	59	23.333	28.571	0.000	0.00316	62.94	ug/L
	Ni	60	112.140	20.642	0.000	0.02160	135.55	ug/L
	Cu	65	62.223	14.752	0.000	0.02489	43.26	ug/L
	Zn	66	161.113	6.236	-0.000	-0.02278	92.89	ug/L
>	Ge	72	52794.824	0.261	52794.824			ug/L
	As	75	-210.895	10.167	-0.001	-0.10718	32.60	ug/L
	Se	82	12.222	24.747	0.000	0.11767	42.30	ug/L
	Y	89	17.778	19.516	7.778			ug/L
	Mo	98	110.496	19.207	0.000	0.03095	41.32	ug/L
	Ag	107	41.111	19.998	0.000	0.01086	23.79	ug/L
	Ag	109	35.000	29.738	0.000	0.00625	54.36	ug/L
	Cd	111	5.546	25.522	0.000	0.00269	67.19	ug/L
	Cd	114	-32.084	31.495	-0.000	-0.01523	34.93	ug/L
>	In	115	267571.748	0.648	267571.748			ug/L
	Sb	121	775.048	5.690	0.003	0.30662	6.39	ug/L
	Ba	135	9.444	50.943	0.000	0.00438	178.28	ug/L
>	Tb	159	304130.776	1.306	304130.776			ug/L
	Ho	165	0.000		-0.000			ug/L
	Tl	205	288.896	3.381	0.000	0.00513	41.39	ug/L
	Pb	208	237.780	9.921	-0.000	-0.00198	161.91	ug/L
	Bi	209	2.222	43.301	0.000			ug/L
	Th	232	733.932	4.787	0.002	0.07160	5.92	ug/L
	U	238	60.000	5.556	0.000	0.00410	6.06	ug/L
	Na	23	8022.927	2.917	0.011	0.00052	27.07	mg/L
	Mg	24	2205.945	3.532	0.004	0.00029	15.42	mg/L
	K	39	417505.426	0.924	0.439	0.01463	14.44	mg/L
	Ca	44	3602.150	3.084	0.004	0.00412	25.77	mg/L
	Fe	54	13522.394	9.335	0.001	0.00030	2240.81	mg/L
>	Sc-1	45	96549.516	0.936	96549.516			mg/L
	Kr	83	36.111	7.050	-5.556			mg/L
	N	15	10550.048	8.274	363.965			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		90.721			
	Be	9					
	Al	27					
>	Sc	45		99.221			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		101.700			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		103.409			
	Sb	121					
	Ba	135					
>	Tb	159		101.356			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1611171-BLK2 @5X

Sample Date/Time: Thursday, December 08, 2016 10:56:11
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1611171-BLK2 @5X.94743
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
⌈>	Li	6	856.170	7.026	856.170			ug/L
⌊	Be	9	1.667	100.000	0.002	0.01131	99.94	ug/L
⌈	Al	27	1627.434	2.562	0.003	0.16861	8.32	ug/L
|>	Sc	45	98378.894	1.490	98378.894			ug/L
|	V	51	858.788	33.058	-0.009	-0.26518	32.32	ug/L
|	Cr	52	3836.734	3.283	0.001	0.02164	178.85	ug/L
|	Mn	55	1519.569	2.452	-0.008	-0.19579	7.69	ug/L
|	Co	59	17.778	42.274	0.000	0.00142	154.91	ug/L
|	Ni	60	27.017	28.255	-0.001	-0.08905	10.78	ug/L
⌊	Cu	65	52.222	7.370	0.000	0.01212	30.14	ug/L
⌈	Zn	66	336.127	108.465	0.003	0.34192	224.05	ug/L
|>	Ge	72	53300.761	0.534	53300.761			ug/L
|	As	75	-218.258	53.398	-0.001	-0.11549	164.87	ug/L
⌊	Se	82	7.889	61.134	0.000	0.04489	175.19	ug/L
	Y	89	9.444	10.189	-0.556			ug/L
⌈	Mo	98	37.161	5.043	-0.000	-0.01418	8.05	ug/L
|	Ag	107	11.111	34.641	0.000	0.00120	104.37	ug/L
|	Ag	109	10.556	48.238	-0.000	-0.00181	92.96	ug/L
|	Cd	111	0.646	277.734	-0.000	-0.00369	63.90	ug/L
|	Cd	114	-28.562	74.362	-0.000	-0.01345	85.32	ug/L
|>	In	115	266142.833	0.267	266142.833			ug/L
⌊	Sb	121	215.559	5.699	0.001	0.07931	6.11	ug/L
⌈	Ba	135	3.889	24.744	-0.000	-0.00467	34.19	ug/L
|>	Tb	159	303111.853	0.607	303111.853			ug/L
|	Ho	165	0.000		-0.000			ug/L
|	Tl	205	64.445	10.452	-0.001	-0.03058	3.31	ug/L
|	Pb	208	287.225	6.205	0.000	0.00405	57.87	ug/L
|	Bi	209	0.556	173.205	0.000			ug/L
|	Th	232	210.559	9.834	0.001	0.01700	12.35	ug/L
⌊	U	238	7.222	26.647	-0.000	-0.00098	19.29	ug/L
⌈	Na	23	4235.880	3.255	-0.030	-0.00147	3.06	mg/L
|	Mg	24	1543.524	2.276	-0.003	-0.00024	9.57	mg/L
|	K	39	402712.156	2.268	0.208	0.00694	44.21	mg/L
|	Ca	44	4656.735	3.040	0.014	0.01539	5.76	mg/L
|	Fe	54	14568.399	5.813	0.009	0.00413	82.09	mg/L
⌊>	Sc-1	45	98378.894	1.490	98378.894			mg/L
	Kr	83	39.445	28.134	-2.222			mg/L
	N	15	11616.357	4.771	1430.274			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		99.291			
	Be	9					
	Al	27					
>	Sc	45		101.101			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		102.674			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		102.857			
	Sb	121					
	Ba	135					
>	Tb	159		101.016			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-02 @5X

Sample Date/Time: Thursday, December 08, 2016 10:59:15
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-02 @5X.94744
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	1010.637	1.441	1010.637			ug/L
	Be	9	10.000	33.333	0.010	0.05992	34.02	ug/L
	Al	27	9500.549	0.590	0.079	3.87662	1.00	ug/L
>	Sc	45	103675.617	0.624	103675.617			ug/L
	V	51	1108.323	29.860	-0.007	-0.20392	47.53	ug/L
	Cr	52	3871.754	0.260	-0.001	-0.03939	15.90	ug/L
	Mn	55	1774595.793	1.848	17.093	431.87182	1.57	ug/L
	Co	59	6179.168	4.172	0.059	1.70115	3.55	ug/L
	Ni	60	190.586	19.805	0.001	0.10627	43.34	ug/L
	Cu	65	201.114	8.465	0.002	0.17005	10.64	ug/L
	Zn	66	30625.445	2.828	0.549	62.03349	1.70	ug/L
>	Ge	72	55407.947	2.419	55407.947			ug/L
	As	75	-101.969	55.792	0.001	0.08090	114.25	ug/L
	Se	82	12.778	103.244	0.000	0.11437	180.42	ug/L
	Y	89	421.681	1.046	411.681			ug/L
	Mo	98	506.383	3.768	0.002	0.25966	3.49	ug/L
	Ag	107	20.000	16.667	0.000	0.00372	26.19	ug/L
	Ag	109	12.222	56.773	-0.000	-0.00148	147.86	ug/L
	Cd	111	6.485	8.301	0.000	0.00350	20.42	ug/L
	Cd	114	-28.123	98.723	-0.000	-0.01232	114.67	ug/L
>	In	115	281746.916	0.797	281746.916			ug/L
	Sb	121	172.225	19.888	0.001	0.05765	22.61	ug/L
	Ba	135	1037.308	4.259	0.003	1.64025	4.05	ug/L
>	Tb	159	312721.458	1.823	312721.458			ug/L
	Ho	165	10.000	16.667	0.000			ug/L
	Tl	205	100.001	11.547	-0.001	-0.02540	6.19	ug/L
	Pb	208	671.681	8.316	0.001	0.04785	11.99	ug/L
	Bi	209	2.222	43.301	0.000			ug/L
	Th	232	546.136	19.034	0.002	0.05029	19.16	ug/L
	U	238	56.111	24.733	0.000	0.00357	35.42	ug/L
	Na	23	859503.498	1.091	8.218	0.40846	1.72	mg/L
	Mg	24	1541021.673	1.482	14.846	1.11640	1.93	mg/L
	K	39	859775.801	1.438	4.407	0.14680	1.54	mg/L
	Ca	44	2191691.772	0.790	21.106	23.73092	0.17	mg/L
	Fe	54	219653.823	0.587	1.979	0.95523	0.10	mg/L
>	Sc-1	45	103675.617	0.624	103675.617			mg/L
	Kr	83	41.667	27.713	-0.000			mg/L
	N	15	12239.266	9.501	2053.183			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		117.205			
	Be	9					
	Al	27					
>	Sc	45		106.544			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		106.733			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		108.887			
	Sb	121					
	Ba	135					
>	Tb	159		104.219			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1611171-DUP2 @5X

Sample Date/Time: Thursday, December 08, 2016 11:02:20
Sample Type: Duplicate of 2
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1611171-DUP2 @5X.94745
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	1035.642	6.479	1035.642			ug/L
	Be	9	12.778	15.061	0.012	0.07499	17.99	ug/L
	Al	27	9531.711	2.978	0.078	3.86683	3.40	ug/L
>	Sc	45	104237.614	0.399	104237.614			ug/L
	V	51	1557.918	37.543	-0.002	-0.07174	241.03	ug/L
	Cr	52	3920.675	3.141	-0.001	-0.02943	160.39	ug/L
	Mn	55	1794585.369	0.399	17.193	434.40112	0.72	ug/L
	Co	59	6219.206	3.466	0.060	1.70307	3.13	ug/L
	Ni	60	244.416	10.815	0.001	0.16954	19.36	ug/L
	Cu	65	328.898	7.028	0.003	0.30634	8.35	ug/L
	Zn	66	31023.483	1.430	0.551	62.16848	1.95	ug/L
>	Ge	72	56010.422	0.874	56010.422			ug/L
	As	75	-175.927	71.567	-0.000	-0.03113	625.78	ug/L
	Se	82	9.333	68.976	0.000	0.06178	163.32	ug/L
	Y	89	415.569	4.472	405.569			ug/L
	Mo	98	490.887	1.946	0.002	0.25061	3.08	ug/L
	Ag	107	14.444	13.323	0.000	0.00202	30.78	ug/L
	Ag	109	15.000	22.222	-0.000	-0.00061	171.40	ug/L
	Cd	111	3.536	50.729	-0.000	-0.00016	1358.75	ug/L
	Cd	114	-36.104	56.606	-0.000	-0.01632	61.29	ug/L
>	In	115	281814.301	1.696	281814.301			ug/L
	Sb	121	174.447	13.042	0.001	0.05847	13.80	ug/L
	Ba	135	996.191	2.861	0.003	1.56487	3.03	ug/L
>	Tb	159	314686.739	0.596	314686.739			ug/L
	Ho	165	11.667	49.487	0.000			ug/L
	Tl	205	110.001	18.924	-0.000	-0.02395	13.10	ug/L
	Pb	208	636.124	3.479	0.001	0.04327	5.77	ug/L
	Bi	209	3.889	98.974	0.000			ug/L
	Th	232	441.683	21.550	0.001	0.03948	23.70	ug/L
	U	238	59.445	12.643	0.000	0.00385	17.35	ug/L
	Na	23	851338.564	0.975	8.095	0.40231	0.86	mg/L
	Mg	24	1525362.905	1.609	14.615	1.09904	1.82	mg/L
	K	39	856339.393	0.673	4.330	0.14422	0.69	mg/L
	Ca	44	2191799.452	0.799	20.994	23.60440	0.93	mg/L
	Fe	54	218510.056	0.521	1.957	0.94444	0.98	mg/L
>	Sc-1	45	104237.614	0.399	104237.614			mg/L
	Kr	83	43.889	4.385	2.222			mg/L
	N	15	12237.587	8.830	2051.503			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		120.105			
	Be	9					22.335
	Al	27					0.253
>	Sc	45		107.122			
	V	51					95.900
	Cr	52					28.935
	Mn	55					0.584
	Co	59					0.113
	Ni	60					45.879
	Cu	65					57.215
	Zn	66					0.217
>	Ge	72		107.894			
	As	75					450.157
	Se	82					59.719
	Y	89					
	Mo	98					3.548
	Ag	107					59.144
	Ag	109					83.004
	Cd	111					219.659
	Cd	114					27.909
>	In	115		108.913			
	Sb	121					1.409
	Ba	135					4.704
>	Tb	159		104.874			
	Ho	165					
	Tl	205					5.867
	Pb	208					10.061
	Bi	209					
	Th	232					24.080
	U	238					7.565
	Na	23					1.516
	Mg	24					1.567
	K	39					1.773
	Ca	44					0.535
	Fe	54					1.136
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-SRD1 @25X

Sample Date/Time: Thursday, December 08, 2016 11:05:24
Sample Type: Dilution - DF:5 of 2
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-SRD1 @25X.94746
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	857.281	2.538	857.281			ug/L
	Be	9	2.778	91.652	0.003	0.01949	90.52	ug/L
	Al	27	2666.125	5.349	0.013	0.66537	11.41	ug/L
>	Sc	45	100247.717	1.667	100247.717			ug/L
	V	51	1274.995	53.446	-0.005	-0.14068	148.63	ug/L
	Cr	52	3469.296	1.595	-0.004	-0.14009	28.76	ug/L
	Mn	55	336695.860	1.306	3.336	84.27536	0.42	ug/L
	Co	59	1282.354	2.145	0.013	0.36229	2.93	ug/L
	Ni	60	62.367	44.762	-0.000	-0.04578	74.70	ug/L
	Cu	65	80.001	12.673	0.000	0.04223	30.57	ug/L
	Zn	66	6156.921	1.803	0.109	12.33642	3.49	ug/L
>	Ge	72	54736.476	1.895	54736.476			ug/L
	As	75	-124.170	65.767	0.001	0.04486	288.03	ug/L
	Se	82	12.778	60.919	0.000	0.12020	103.52	ug/L
	Y	89	97.223	23.338	87.223			ug/L
	Mo	98	108.707	10.014	0.000	0.02796	23.01	ug/L
	Ag	107	13.889	38.575	0.000	0.00195	86.35	ug/L
	Ag	109	20.000	38.188	0.000	0.00110	220.31	ug/L
	Cd	111	1.838	49.308	-0.000	-0.00220	53.25	ug/L
	Cd	114	-16.177	85.083	-0.000	-0.00643	109.92	ug/L
>	In	115	275418.110	0.944	275418.110			ug/L
	Sb	121	98.890	5.919	0.000	0.03021	6.97	ug/L
	Ba	135	207.781	14.623	0.001	0.32210	15.70	ug/L
>	Tb	159	310644.053	0.586	310644.053			ug/L
	Ho	165	3.889	49.487	0.000			ug/L
	Tl	205	95.556	16.206	-0.001	-0.02597	9.30	ug/L
	Pb	208	303.892	1.583	0.000	0.00516	7.53	ug/L
	Bi	209	0.556	173.205	0.000			ug/L
	Th	232	127.779	18.645	0.000	0.00800	29.86	ug/L
	U	238	12.778	19.924	-0.000	-0.00048	49.45	ug/L
	Na	23	162716.567	0.837	1.551	0.07708	2.00	mg/L
	Mg	24	293715.494	0.703	2.912	0.21896	2.36	mg/L
	K	39	496267.920	1.811	1.065	0.03547	0.95	mg/L
	Ca	44	446356.131	1.619	4.419	4.96851	0.53	mg/L
	Fe	54	52964.725	1.043	0.389	0.18774	3.40	mg/L
>	Sc-1	45	100247.717	1.667	100247.717			mg/L
	Kr	83	38.889	19.325	-2.778			mg/L
	N	15	11397.656	8.607	1211.573			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		99.420			
	Be	9				62.627	
	Al	27				14.181	
>	Sc	45		103.021			
	V	51				-244.952	
	Cr	52				-1678.390	
	Mn	55				2.430	
	Co	59				6.485	
	Ni	60				315.402	
	Cu	65				24.172	
	Zn	66				0.566	
>	Ge	72		105.440			
	As	75				177.261	
	Se	82				425.459	
	Y	89					
	Mo	98				46.159	
	Ag	107				161.589	
	Ag	109				-472.573	
	Cd	111				414.561	
	Cd	114				-161.050	
>	In	115		106.441			
	Sb	121				162.009	
	Ba	135				1.815	
>	Tb	159		103.526			
	Ho	165					
	Tl	205				-411.330	
	Pb	208				46.047	
	Bi	209					
	Th	232				20.461	
	U	238				166.827	
	Na	23				5.646	
	Mg	24				1.935	
	K	39				20.811	
	Ca	44				4.684	
	Fe	54				1.730	
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1611171-SRM2 @20X

Sample Date/Time: Thursday, December 08, 2016 11:08:28
Sample Type: Spike - 1 of 1
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1611171-SRM2 @20X.94747
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	2290.976	2.223	2290.976			ug/L
	Be	9	7024.501	1.002	3.067	18.55537	2.83	ug/L
	Al	27	92523.160	0.595	0.929	45.86489	0.30	ug/L
>	Sc	45	98219.115	0.878	98219.115			ug/L
	V	51	151553.513	0.251	1.526	47.41732	0.85	ug/L
	Cr	52	133189.271	0.945	1.318	48.66630	1.27	ug/L
	Mn	55	194468.458	0.833	1.957	49.44320	1.71	ug/L
	Co	59	173141.040	0.393	1.763	50.43273	1.20	ug/L
	Ni	60	38765.957	1.342	0.394	49.16546	2.21	ug/L
	Cu	65	44028.430	0.719	0.448	50.19672	0.52	ug/L
	Zn	66	25703.870	1.903	0.480	54.21271	2.21	ug/L
>	Ge	72	53168.528	0.305	53168.528			ug/L
	As	75	60449.212	1.618	1.140	100.20881	1.80	ug/L
	Se	82	3276.765	1.858	0.062	53.56381	1.66	ug/L
	Y	89	16.667	43.589	6.667			ug/L
	Mo	98	76830.355	0.744	0.286	47.20462	0.36	ug/L
	Ag	107	38870.508	1.104	0.145	12.50505	1.25	ug/L
	Ag	109	38199.716	0.236	0.142	12.56775	0.67	ug/L
	Cd	111	39562.498	1.219	0.147	51.38367	0.78	ug/L
	Cd	114	94045.486	1.001	0.350	50.21997	0.94	ug/L
>	In	115	268702.825	0.433	268702.825			ug/L
	Sb	121	264246.071	0.479	0.983	107.08232	0.28	ug/L
	Ba	135	31383.598	0.365	0.100	50.02029	0.76	ug/L
>	Tb	159	312266.966	0.516	312266.966			ug/L
	Ho	165	1.111	173.205	0.000			ug/L
	Tl	205	1538054.747	0.896	4.925	238.34357	1.10	ug/L
	Pb	208	831193.252	0.473	2.661	97.19431	0.74	ug/L
	Bi	209	5.000	33.333	0.000			ug/L
	Th	232	560.025	9.298	0.002	0.05191	10.51	ug/L
	U	238	6.667	43.301	-0.000	-0.00106	25.78	ug/L
	Na	23	97210.341	1.947	0.917	0.04559	2.52	mg/L
	Mg	24	63470.128	1.282	0.627	0.04717	1.19	mg/L
	K	39	1122066.696	1.233	7.540	0.25114	3.07	mg/L
	Ca	44	10104.273	0.864	0.069	0.07785	2.53	mg/L
	Fe	54	24366.053	5.200	0.109	0.05242	12.35	mg/L
>	Sc-1	45	98219.115	0.878	98219.115			mg/L
	Kr	83	40.556	31.117	-1.111			mg/L
	N	15	11146.096	9.103	960.013			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		265.688			
	Be	9			37.088		
	Al	27			91.393		
>	Sc	45		100.937			
	V	51			95.365		
	Cr	52			97.289		
	Mn	55			99.278		
	Co	59			100.863		
	Ni	60			98.509		
	Cu	65			100.369		
	Zn	66					
>	Ge	72		102.420			
	As	75			100.324		
	Se	82			107.038		
	Y	89					
	Mo	98			94.438		
	Ag	107			100.031		
	Ag	109			100.557		
	Cd	111			102.775		
	Cd	114					
>	In	115		103.846			
	Sb	121			107.003		
	Ba	135			100.050		
>	Tb	159		104.067			
	Ho	165					
	Tl	205			95.350		
	Pb	208			97.190		
	Bi	209					
	Th	232					
	U	238					
	Na	23			94.109		
	Mg	24			94.831		
	K	39			97.683		
	Ca	44			124.932		
	Fe	54			96.585		
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1611171-MS2 @5X

Sample Date/Time: Thursday, December 08, 2016 11:11:33
Sample Type: Spike - 2 of 2
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1611171-MS2 @5X.94748
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	2183.715	1.594	2183.715			ug/L
	Be	9	5602.512	3.391	2.565	15.51766	2.14	ug/L
	Al	27	758061.907	2.556	7.311	360.97938	3.26	ug/L
>	Sc	45	103544.993	2.763	103544.993			ug/L
	V	51	183550.366	0.340	1.756	54.57669	2.49	ug/L
	Cr	52	211453.363	1.166	2.004	74.03164	2.23	ug/L
	Mn	55	1903011.584	0.789	18.364	463.97932	2.68	ug/L
	Co	59	143981.352	1.060	1.391	39.79118	1.76	ug/L
	Ni	60	76757.385	1.251	0.741	92.49107	3.34	ug/L
	Cu	65	52682.782	0.810	0.509	57.01570	3.48	ug/L
	Zn	66	50104.011	2.625	0.891	100.64292	1.99	ug/L
>	Ge	72	55999.254	1.827	55999.254			ug/L
	As	75	96208.241	2.284	1.721	151.29685	1.35	ug/L
	Se	82	26252.127	1.775	0.469	408.00463	0.21	ug/L
	Y	89	419.459	10.739	409.459			ug/L
	Mo	98	126735.912	0.983	0.454	75.02090	1.62	ug/L
	Ag	107	45622.583	0.865	0.164	14.13650	1.42	ug/L
	Ag	109	44516.872	0.751	0.160	14.10624	0.81	ug/L
	Cd	111	31342.482	1.314	0.112	39.20349	0.23	ug/L
	Cd	114	74974.150	1.821	0.269	38.55547	0.51	ug/L
>	In	115	279016.574	1.530	279016.574			ug/L
	Sb	121	426853.324	1.381	1.530	166.59145	0.51	ug/L
	Ba	135	24937.989	0.799	0.079	39.52143	1.59	ug/L
>	Tb	159	314073.204	1.677	314073.204			ug/L
	Ho	165	10.556	36.464	0.000			ug/L
	Tl	205	2417892.989	1.109	7.698	372.57192	0.66	ug/L
	Pb	208	1611266.432	0.304	5.131	187.39376	1.99	ug/L
	Bi	209	15.000	11.111	0.000			ug/L
	Th	232	702.818	8.970	0.002	0.06595	8.10	ug/L
	U	238	63.889	26.774	0.000	0.00427	35.94	ug/L
	Na	23	2030040.254	1.749	19.541	0.97118	2.69	mg/L
	Mg	24	1990859.762	2.719	19.211	1.44462	1.87	mg/L
	K	39	6683441.288	0.542	60.693	2.02162	2.97	mg/L
	Ca	44	2174379.456	1.010	20.975	23.58396	2.68	mg/L
	Fe	54	330991.516	1.070	3.059	1.47646	3.72	mg/L
>	Sc-1	45	103544.993	2.763	103544.993			mg/L
	Kr	83	62.223	17.835	20.556			mg/L
	N	15	12464.177	10.685	2278.094			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6		253.248			
⌊	Be	9			38.644		
⌈	Al	27			89.276		
|>	Sc	45		106.410			
|	V	51			91.301		
|	Cr	52			92.589		
|	Mn	55			80.269		
|	Co	59			76.180		
|	Ni	60			92.385		
⌊	Cu	65			94.743		
⌈	Zn	66					
|>	Ge	72		107.872			
|	As	75			94.510		
⌊	Se	82			101.973		
	Y	89					
⌈	Mo	98			93.452		
|	Ag	107			94.219		
|	Ag	109			94.051		
|	Cd	111			98.000		
|	Cd	114					
|>	In	115		107.832			
⌊	Sb	121			104.084		
⌈	Ba	135			94.703		
|>	Tb	159		104.669			
|	Ho	165					
|	Tl	205			93.149		
|	Pb	208			93.673		
|	Bi	209					
|	Th	232					
⌊	U	238					
⌈	Na	23			93.788		
|	Mg	24			82.054		
|	K	39			93.741		
|	Ca	44			-73.480		
|	Fe	54			86.872		
⌊>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-05 @5X

Sample Date/Time: Thursday, December 08, 2016 11:14:37
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-05 @5X.94749
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	1075.093	3.801	1075.093			ug/L
	Be	9	20.556	32.769	0.019	0.11540	31.19	ug/L
	Al	27	62111.068	2.017	0.581	28.67780	2.54	ug/L
>	Sc	45	104586.768	1.100	104586.768			ug/L
	V	51	1023.008	79.955	-0.007	-0.23013	106.29	ug/L
	Cr	52	3874.534	1.831	-0.001	-0.05024	69.59	ug/L
	Mn	55	3485426.563	1.289	33.302	841.40025	0.45	ug/L
	Co	59	19824.729	1.347	0.189	5.41941	1.19	ug/L
	Ni	60	1523.282	1.560	0.014	1.69549	2.31	ug/L
	Cu	65	921.735	4.040	0.008	0.94051	4.35	ug/L
	Zn	66	57594.812	2.398	1.006	113.53583	1.95	ug/L
>	Ge	72	57083.410	1.197	57083.410			ug/L
	As	75	-148.283	73.961	0.000	0.01423	1200.21	ug/L
	Se	82	20.222	86.697	0.000	0.22426	119.77	ug/L
	Y	89	3164.690	2.162	3154.690			ug/L
	Mo	98	337.483	12.645	0.001	0.16059	17.92	ug/L
	Ag	107	74.445	18.642	0.000	0.02034	19.12	ug/L
	Ag	109	54.445	9.841	0.000	0.01175	15.73	ug/L
	Cd	111	21.831	9.079	0.000	0.02243	8.99	ug/L
	Cd	114	26.586	168.180	0.000	0.01572	146.15	ug/L
>	In	115	282349.524	1.859	282349.524			ug/L
	Sb	121	357.788	8.892	0.001	0.12926	11.13	ug/L
	Ba	135	947.294	3.414	0.003	1.47783	3.23	ug/L
>	Tb	159	316714.545	0.916	316714.545			ug/L
	Ho	165	84.445	12.059	0.000			ug/L
	Tl	205	20815.577	20.560	0.065	3.14368	21.63	ug/L
	Pb	208	3302.014	4.054	0.010	0.35018	3.60	ug/L
	Bi	209	224.448	3.811	0.001			ug/L
	Th	232	291.118	14.225	0.001	0.02412	16.51	ug/L
	U	238	97.223	20.090	0.000	0.00731	24.25	ug/L
	Na	23	520071.532	1.350	4.900	0.24353	0.58	mg/L
	Mg	24	4383348.203	0.852	41.894	3.15038	0.81	mg/L
	K	39	1229882.308	1.923	7.874	0.26228	2.80	mg/L
	Ca	44	3607877.412	1.035	34.464	38.74988	0.86	mg/L
	Fe	54	543650.113	0.591	5.059	2.44158	0.75	mg/L
>	Sc-1	45	104586.768	1.100	104586.768			mg/L
	Kr	83	40.000	7.217	-1.667			mg/L
	N	15	12401.238	8.455	2215.155			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		124.680			
	Be	9					
	Al	27					
>	Sc	45		107.480			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		109.961			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		109.120			
	Sb	121					
	Ba	135					
>	Tb	159		105.549			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1611171-MS4 @5X

Sample Date/Time: Thursday, December 08, 2016 11:17:43
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1611171-MS4 @5X.94750
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	2279.860	3.090	2279.860			ug/L
	Be	9	5536.896	1.039	2.430	14.70052	3.20	ug/L
	Al	27	821191.872	1.389	7.783	384.28339	1.55	ug/L
>	Sc	45	105337.492	0.380	105337.492			ug/L
	V	51	187457.431	0.721	1.762	54.76767	0.90	ug/L
	Cr	52	212273.021	0.642	1.977	73.00889	0.92	ug/L
	Mn	55	3599999.713	0.977	34.152	862.87468	0.61	ug/L
	Co	59	160466.704	0.732	1.523	43.57994	1.08	ug/L
	Ni	60	78768.935	0.887	0.747	93.24887	1.09	ug/L
	Cu	65	53870.616	0.503	0.511	57.27308	0.37	ug/L
	Zn	66	76862.534	0.740	1.332	150.31901	1.16	ug/L
>	Ge	72	57589.690	1.215	57589.690			ug/L
	As	75	97033.720	1.040	1.688	148.39784	1.41	ug/L
	Se	82	26598.125	0.114	0.462	402.00362	1.29	ug/L
	Y	89	3113.553	0.965	3103.553			ug/L
	Mo	98	128702.154	0.984	0.452	74.61775	0.80	ug/L
	Ag	107	46166.009	1.363	0.162	14.01341	2.64	ug/L
	Ag	109	44989.120	0.389	0.158	13.96490	1.75	ug/L
	Cd	111	32061.819	1.071	0.113	39.28650	1.90	ug/L
	Cd	114	75398.481	0.572	0.265	37.98623	1.76	ug/L
>	In	115	284852.746	1.404	284852.746			ug/L
	Sb	121	436243.718	1.811	1.531	166.77055	1.58	ug/L
	Ba	135	25435.541	0.174	0.080	39.90536	0.65	ug/L
>	Tb	159	317216.626	0.623	317216.626			ug/L
	Ho	165	89.445	4.689	0.000			ug/L
	Tl	205	2435288.517	1.822	7.676	371.49670	1.40	ug/L
	Pb	208	1609884.525	0.191	5.074	185.34211	0.79	ug/L
	Bi	209	286.118	2.205	0.001			ug/L
	Th	232	622.254	14.702	0.002	0.05722	15.73	ug/L
	U	238	88.890	26.539	0.000	0.00653	33.11	ug/L
	Na	23	1723195.470	1.349	16.286	0.80942	1.05	mg/L
	Mg	24	4854195.422	1.390	46.063	3.46387	1.12	mg/L
	K	39	7206644.668	0.845	64.531	2.14946	1.29	mg/L
	Ca	44	3582607.515	1.203	33.977	38.20234	1.05	mg/L
	Fe	54	667070.388	1.032	6.193	2.98912	1.20	mg/L
>	Sc-1	45	105337.492	0.380	105337.492			mg/L
	Kr	83	60.000	18.215	18.333			mg/L
	N	15	12365.638	10.152	2179.554			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		264.399			
	Be	9					
	Al	27					
>	Sc	45		108.252			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		110.936			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		110.088			
	Sb	121					
	Ba	135					
>	Tb	159		105.717			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-08 @5X

Sample Date/Time: Thursday, December 08, 2016 11:20:48
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-08 @5X.94751
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	1125.101	3.417	1125.101			ug/L
	Be	9	61.111	5.677	0.054	0.32875	6.05	ug/L
	Al	27	231396.862	1.491	2.183	107.76509	0.50	ug/L
>	Sc	45	105383.869	1.007	105383.869			ug/L
	V	51	1437.869	8.816	-0.004	-0.11196	29.82	ug/L
	Cr	52	3773.361	2.280	-0.003	-0.09601	42.92	ug/L
	Mn	55	2994505.723	1.401	28.391	717.32430	0.50	ug/L
	Co	59	17808.112	0.405	0.169	4.83114	1.20	ug/L
	Ni	60	1066.850	9.800	0.009	1.14041	10.36	ug/L
	Cu	65	2118.693	2.298	0.020	2.20593	1.78	ug/L
	Zn	66	49364.786	1.917	0.853	96.28686	0.20	ug/L
>	Ge	72	57659.821	2.005	57659.821			ug/L
	As	75	5.747	476.182	0.003	0.25301	16.70	ug/L
	Se	82	17.556	39.388	0.000	0.18010	54.98	ug/L
	Y	89	4148.599	1.619	4138.599			ug/L
	Mo	98	383.969	3.071	0.001	0.18528	4.48	ug/L
	Ag	107	46.111	13.684	0.000	0.01157	16.72	ug/L
	Ag	109	36.111	7.050	0.000	0.00589	14.45	ug/L
	Cd	111	29.993	34.887	0.000	0.03208	38.78	ug/L
	Cd	114	21.643	80.874	0.000	0.01281	67.89	ug/L
>	In	115	285141.163	1.210	285141.163			ug/L
	Sb	121	368.900	8.036	0.001	0.13207	9.38	ug/L
	Ba	135	1416.827	3.159	0.004	2.22108	3.58	ug/L
>	Tb	159	316016.955	1.215	316016.955			ug/L
	Ho	165	175.558	0.548	0.001			ug/L
	Tl	205	23446.086	13.408	0.073	3.55407	14.83	ug/L
	Pb	208	3686.544	1.463	0.011	0.39555	1.64	ug/L
	Bi	209	21.667	23.077	0.000			ug/L
	Th	232	290.007	13.948	0.001	0.02406	15.51	ug/L
	U	238	70.556	21.172	0.000	0.00485	27.28	ug/L
	Na	23	585359.336	2.134	5.482	0.27244	1.18	mg/L
	Mg	24	3860371.856	1.846	36.611	2.75312	1.07	mg/L
	K	39	1275786.265	1.667	8.220	0.27380	0.98	mg/L
	Ca	44	3086776.982	0.649	29.258	32.89645	0.37	mg/L
	Fe	54	1058530.778	1.332	9.905	4.78044	0.33	mg/L
>	Sc-1	45	105383.869	1.007	105383.869			mg/L
	Kr	83	43.333	37.880	1.667			mg/L
	N	15	12348.902	7.661	2162.819			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6		130.480			
⌊	Be	9					
⌈	Al	27					
|>	Sc	45		108.300			
|	V	51					
|	Cr	52					
|	Mn	55					
|	Co	59					
|	Ni	60					
⌊	Cu	65					
⌈	Zn	66					
|>	Ge	72		111.071			
|	As	75					
⌊	Se	82					
	Y	89					
⌈	Mo	98					
|	Ag	107					
|	Ag	109					
|	Cd	111					
|	Cd	114					
|>	In	115		110.199			
⌊	Sb	121					
⌈	Ba	135					
|>	Tb	159		105.317			
|	Ho	165					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					
⌈	Na	23					
|	Mg	24					
|	K	39					
|	Ca	44					
|	Fe	54					
⌊>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, December 08, 2016 11:23:54
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Blank.94752
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	795.051	11.637	795.051			ug/L
	Be	9	1.111	173.205	0.001	0.00797	173.21	ug/L
	Al	27	1493.512	5.373	0.002	0.08707	60.33	ug/L
>	Sc	45	100388.312	1.837	100388.312			ug/L
	V	51	1104.475	36.916	-0.006	-0.19521	61.02	ug/L
	Cr	52	3340.893	3.075	-0.005	-0.18886	31.08	ug/L
	Mn	55	1959.814	1.879	-0.004	-0.09294	0.72	ug/L
	Co	59	20.556	18.725	0.000	0.00211	53.96	ug/L
	Ni	60	42.428	28.561	-0.001	-0.07036	22.57	ug/L
	Cu	65	35.556	18.944	-0.000	-0.00774	87.12	ug/L
	Zn	66	108.890	11.889	-0.001	-0.14506	19.72	ug/L
>	Ge	72	55360.225	0.965	55360.225			ug/L
	As	75	-201.721	20.978	-0.001	-0.07666	89.82	ug/L
	Se	82	9.444	170.232	0.000	0.06384	393.58	ug/L
	Y	89	8.333	60.000	-1.667			ug/L
	Mo	98	84.445	8.900	0.000	0.01226	39.98	ug/L
	Ag	107	16.111	15.802	0.000	0.00252	29.08	ug/L
	Ag	109	15.000		-0.000	-0.00061	7.79	ug/L
	Cd	111	2.182	162.155	-0.000	-0.00182	240.77	ug/L
	Cd	114	-35.193	172.922	-0.000	-0.01584	193.82	ug/L
>	In	115	282012.226	1.014	282012.226			ug/L
	Sb	121	103.890	4.901	0.000	0.03123	5.97	ug/L
	Ba	135	5.000	33.333	-0.000	-0.00323	82.76	ug/L
>	Tb	159	318663.658	1.938	318663.658			ug/L
	Ho	165	1.667	100.000	0.000			ug/L
	Tl	205	14035.836	9.453	0.043	2.09004	8.73	ug/L
	Pb	208	256.113	6.551	-0.000	-0.00123	112.38	ug/L
	Bi	209	1.111	173.205	0.000			ug/L
	Th	232	50.556	10.597	-0.000	-0.00002	1969.09	ug/L
	U	238	2.222	114.564	-0.000	-0.00148	16.20	ug/L
	Na	23	1212.896	5.609	-0.061	-0.00301	1.47	mg/L
	Mg	24	1954.750	1.158	0.001	0.00004	104.32	mg/L
	K	39	412901.986	1.892	0.228	0.00759	25.48	mg/L
	Ca	44	4102.458	2.786	0.007	0.00814	23.36	mg/L
	Fe	54	14254.517	11.490	0.003	0.00128	681.73	mg/L
>	Sc-1	45	100388.312	1.837	100388.312			mg/L
	Kr	83	47.222	28.745	5.556			mg/L
	N	15	11039.851	13.012	853.768			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		92.203			
	Be	9					
	Al	27					
>	Sc	45		103.166			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		106.641			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		108.990			
	Sb	121					
	Ba	135					
>	Tb	159		106.199			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-CCV

Sample Date/Time: Thursday, December 08, 2016 11:26:59
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCV.94753
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	810.053	6.822	810.053			ug/L
	Be	9	6885.459	2.343	8.528	51.58655	7.59	ug/L
	Al	27	476043.686	0.675	4.925	243.15416	1.15	ug/L
>	Sc	45	96413.521	0.489	96413.521			ug/L
	V	51	157979.776	0.753	1.621	50.38605	1.15	ug/L
	Cr	52	137311.545	1.170	1.386	51.18263	1.48	ug/L
	Mn	55	196507.671	1.435	2.015	50.90795	0.96	ug/L
	Co	59	177233.415	0.596	1.838	52.58916	0.85	ug/L
	Ni	60	39156.260	1.163	0.405	50.58797	1.17	ug/L
	Cu	65	44142.572	1.139	0.457	51.26990	1.14	ug/L
	Zn	66	24294.351	0.986	0.456	51.42712	1.44	ug/L
>	Ge	72	52955.623	0.467	52955.623			ug/L
	As	75	29674.084	0.877	0.563	49.51168	0.54	ug/L
	Se	82	3138.584	1.937	0.059	51.50813	1.72	ug/L
	Y	89	13.333	45.069	3.333			ug/L
	Mo	98	80469.098	0.385	0.306	50.48127	1.20	ug/L
	Ag	107	155871.429	0.479	0.592	51.20495	1.25	ug/L
	Ag	109	153086.627	0.448	0.582	51.43879	1.27	ug/L
	Cd	111	39030.662	0.256	0.148	51.75830	1.13	ug/L
	Cd	114	93529.880	0.369	0.355	50.99314	1.20	ug/L
>	In	115	263195.479	0.881	263195.479			ug/L
	Sb	121	124210.511	0.879	0.472	51.38856	1.75	ug/L
	Ba	135	31095.502	1.062	0.104	51.64488	1.26	ug/L
>	Tb	159	299667.542	0.205	299667.542			ug/L
	Ho	165	17.222	33.986	0.000			ug/L
	Tl	205	317078.869	0.751	1.057	51.16923	0.96	ug/L
	Pb	208	416198.736	0.436	1.388	50.69847	0.58	ug/L
	Bi	209	10.000	16.667	0.000			ug/L
	Th	232	461962.934	1.570	1.541	48.95029	1.46	ug/L
	U	238	507071.868	0.323	1.692	49.61615	0.53	ug/L
	Na	23	9663788.785	1.748	100.156	4.97784	1.29	mg/L
	Mg	24	6385790.758	1.484	66.213	4.97915	1.11	mg/L
	K	39	14958902.649	0.451	151.270	5.03861	0.60	mg/L
	Ca	44	435663.651	0.947	4.485	5.04275	0.46	mg/L
	Fe	54	1011007.303	1.685	10.346	4.99356	1.36	mg/L
>	Sc-1	45	96413.521	0.489	96413.521			mg/L
	Kr	83	44.445	18.875	2.778			mg/L
	N	15	16020.550	5.683	5834.467			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		93.943			
	Be	9	103.173				
	Al	27	97.262				
>	Sc	45		99.081			
	V	51	100.772				
	Cr	52	102.365				
	Mn	55	101.816				
	Co	59	105.178				
	Ni	60	101.176				
	Cu	65	102.540				
	Zn	66	102.854				
>	Ge	72		102.009			
	As	75	99.023				
	Se	82	103.016				
	Y	89					
	Mo	98	100.963				
	Ag	107	102.410				
	Ag	109	102.878				
	Cd	111	103.517				
	Cd	114					
>	In	115		101.718			
	Sb	121	102.777				
	Ba	135	103.290				
>	Tb	159		99.868			
	Ho	165					
	Tl	205	102.338				
	Pb	208	101.397				
	Bi	209					
	Th	232	97.901				
	U	238	99.232				
	Na	23	99.557				
	Mg	24	99.583				
	K	39	100.772				
	Ca	44	100.855				
	Fe	54	99.871				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-CCB

Sample Date/Time: Thursday, December 08, 2016 11:30:17
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCB.94754
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	766.714	5.330	766.714			ug/L
	Be	9	0.556	173.205	0.001	0.00439	173.21	ug/L
	Al	27	1571.864	3.308	0.003	0.15488	17.06	ug/L
>	Sc	45	96655.075	1.437	96655.075			ug/L
	V	51	1121.494	8.582	-0.006	-0.17539	14.86	ug/L
	Cr	52	3270.856	2.298	-0.005	-0.16888	11.24	ug/L
	Mn	55	1768.385	2.844	-0.005	-0.12398	6.20	ug/L
	Co	59	34.445	29.166	0.000	0.00646	47.20	ug/L
	Ni	60	101.601	7.577	0.000	0.00804	146.59	ug/L
	Cu	65	61.111	26.907	0.000	0.02358	82.27	ug/L
	Zn	66	133.335	12.055	-0.001	-0.08189	42.37	ug/L
>	Ge	72	52748.323	0.245	52748.323			ug/L
	As	75	-191.908	6.489	-0.001	-0.07590	27.43	ug/L
	Se	82	10.556	32.868	0.000	0.09044	63.69	ug/L
	Y	89	13.889	30.199	3.889			ug/L
	Mo	98	130.991	18.179	0.000	0.04285	34.38	ug/L
	Ag	107	32.222	7.901	0.000	0.00789	9.83	ug/L
	Ag	109	39.445	9.758	0.000	0.00759	17.16	ug/L
	Cd	111	3.333	106.585	-0.000	-0.00023	1989.85	ug/L
	Cd	114	-7.242	438.891	-0.000	-0.00193	873.29	ug/L
>	In	115	270280.517	0.368	270280.517			ug/L
	Sb	121	771.159	11.605	0.003	0.30191	12.28	ug/L
	Ba	135	7.778	32.733	0.000	0.00143	277.88	ug/L
>	Tb	159	309196.953	1.543	309196.953			ug/L
	Ho	165	1.667	173.205	0.000			ug/L
	Tl	205	3795.046	8.080	0.011	0.55349	9.60	ug/L
	Pb	208	262.780	16.856	0.000	0.00049	1085.57	ug/L
	Bi	209	1.667	100.000	0.000			ug/L
	Th	232	588.917	2.305	0.002	0.05545	3.75	ug/L
	U	238	51.111	9.962	0.000	0.00316	13.21	ug/L
	Na	23	7908.895	3.771	0.009	0.00046	45.32	mg/L
	Mg	24	2164.820	4.780	0.003	0.00026	37.66	mg/L
	K	39	419358.810	1.943	0.454	0.01513	26.32	mg/L
	Ca	44	3701.097	4.837	0.005	0.00522	33.92	mg/L
	Fe	54	13451.828	6.998	-0.000	-0.00011	5212.12	mg/L
>	Sc-1	45	96655.075	1.437	96655.075			mg/L
	Kr	83	36.111	13.324	-5.556			mg/L
	N	15	10783.213	6.966	597.130			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6		88.917			
⌊	Be	9					
⌈	Al	27					
|>	Sc	45		99.329			
|	V	51					
|	Cr	52					
|	Mn	55					
|	Co	59					
|	Ni	60					
⌊	Cu	65					
⌈	Zn	66					
|>	Ge	72		101.610			
|	As	75					
⌊	Se	82					
	Y	89					
⌈	Mo	98					
|	Ag	107					
|	Ag	109					
|	Cd	111					
|	Cd	114					
|>	In	115		104.456			
⌊	Sb	121					
⌈	Ba	135					
|>	Tb	159		103.044			
|	Ho	165					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					
⌈	Na	23					
|	Mg	24					
|	K	39					
|	Ca	44					
|	Fe	54					
⌊>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-11 @5X

Sample Date/Time: Thursday, December 08, 2016 11:33:37
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-11 @5X.94755
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	1048.977	3.428	1048.977			ug/L
	Be	9	58.334	21.571	0.055	0.33527	18.57	ug/L
	Al	27	3247974.558	0.239	29.540	1458.54170	3.74	ug/L
>	Sc	45	110012.995	3.970	110012.995			ug/L
	V	51	1346.973	49.451	-0.005	-0.15196	132.79	ug/L
	Cr	52	4235.325	3.911	0.000	0.00592	1830.73	ug/L
	Mn	55	3419849.967	2.508	31.082	785.30295	3.01	ug/L
	Co	59	31013.986	0.995	0.282	8.06916	3.63	ug/L
	Ni	60	3131.721	3.775	0.028	3.43687	6.98	ug/L
	Cu	65	72057.521	1.651	0.656	73.47418	5.56	ug/L
	Zn	66	108430.743	2.791	1.785	201.48470	3.43	ug/L
>	Ge	72	60695.364	4.587	60695.364			ug/L
	As	75	337.424	36.019	0.008	0.73611	24.96	ug/L
	Se	82	21.333	66.457	0.000	0.22191	90.25	ug/L
	Y	89	28042.215	0.676	28032.215			ug/L
	Mo	98	369.950	2.535	0.001	0.16720	5.75	ug/L
	Ag	107	170.002	7.402	0.001	0.04679	10.15	ug/L
	Ag	109	179.447	6.846	0.001	0.04769	4.84	ug/L
	Cd	111	1069.126	6.053	0.004	1.24327	6.74	ug/L
	Cd	114	2477.937	5.189	0.008	1.18993	3.53	ug/L
>	In	115	299190.844	2.450	299190.844			ug/L
	Sb	121	606.696	2.249	0.002	0.21210	4.84	ug/L
	Ba	135	1093.429	4.250	0.003	1.61184	2.79	ug/L
>	Tb	159	335311.355	1.719	335311.355			ug/L
	Ho	165	1399.601	5.184	0.004			ug/L
	Tl	205	2191.497	8.157	0.006	0.27524	7.57	ug/L
	Pb	208	44194.921	2.468	0.131	4.78435	2.84	ug/L
	Bi	209	1063.980	5.925	0.003			ug/L
	Th	232	1975.869	7.432	0.006	0.18198	6.31	ug/L
	U	238	863.393	6.406	0.003	0.07389	8.26	ug/L
	Na	23	472627.558	2.195	4.226	0.21005	2.99	mg/L
	Mg	24	4937180.502	1.962	44.885	3.37528	2.24	mg/L
	K	39	1597328.750	2.989	10.645	0.35459	5.57	mg/L
	Ca	44	3019998.985	2.086	27.444	30.85676	4.11	mg/L
	Fe	54	1130016.361	1.185	10.142	4.89506	3.93	mg/L
>	Sc-1	45	110012.995	3.970	110012.995			mg/L
	Kr	83	45.556	33.197	3.889			mg/L
	N	15	13048.298	16.510	2862.214			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		121.651			
	Be	9					
	Al	27					
>	Sc	45		113.057			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		116.919			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		115.629			
	Sb	121					
	Ba	135					
>	Tb	159		111.747			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-14 @5X

Sample Date/Time: Thursday, December 08, 2016 11:36:43
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-14 @5X.94756
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	977.299	7.447	977.299			ug/L
	Be	9	7.222	35.251	0.007	0.04417	29.08	ug/L
	Al	27	23975.345	1.001	0.214	10.57726	1.03	ug/L
>	Sc	45	105457.262	0.327	105457.262			ug/L
	V	51	962.776	3.630	-0.008	-0.25202	4.41	ug/L
	Cr	52	3931.793	3.194	-0.001	-0.04166	107.76	ug/L
	Mn	55	1862060.380	0.458	17.634	445.53226	0.58	ug/L
	Co	59	7134.069	0.574	0.068	1.93164	0.36	ug/L
	Ni	60	52.266	156.002	-0.000	-0.06135	157.81	ug/L
	Cu	65	477.796	10.816	0.004	0.46055	12.15	ug/L
	Zn	66	48911.194	0.183	0.843	95.15661	1.28	ug/L
>	Ge	72	57810.600	1.089	57810.600			ug/L
	As	75	-144.842	58.874	0.000	0.02340	554.41	ug/L
	Se	82	14.889	92.209	0.000	0.13909	146.52	ug/L
	Y	89	993.968	4.887	983.968			ug/L
	Mo	98	460.451	1.880	0.001	0.22397	2.06	ug/L
	Ag	107	20.556	28.475	0.000	0.00368	46.39	ug/L
	Ag	109	23.333	18.898	0.000	0.00177	76.58	ug/L
	Cd	111	67.144	9.670	0.000	0.07596	10.76	ug/L
	Cd	114	175.022	29.331	0.001	0.08830	29.41	ug/L
>	In	115	291241.730	0.701	291241.730			ug/L
	Sb	121	297.785	5.378	0.001	0.10244	5.22	ug/L
	Ba	135	1921.407	2.283	0.006	2.96821	2.40	ug/L
>	Tb	159	321049.346	0.164	321049.346			ug/L
	Ho	165	32.222	31.604	0.000			ug/L
	Tl	205	1694.119	7.749	0.004	0.21450	9.02	ug/L
	Pb	208	6399.636	2.649	0.019	0.69749	2.64	ug/L
	Bi	209	1.111	86.603	0.000			ug/L
	Th	232	441.127	2.861	0.001	0.03858	3.14	ug/L
	U	238	373.900	3.225	0.001	0.03247	3.33	ug/L
	Na	23	476626.255	1.592	4.447	0.22103	1.84	mg/L
	Mg	24	3074385.010	0.382	29.134	2.19088	0.64	mg/L
	K	39	1308773.516	0.763	8.525	0.28396	1.52	mg/L
	Ca	44	3285498.460	1.306	31.122	34.99214	1.48	mg/L
	Fe	54	297762.744	0.429	2.684	1.29542	0.24	mg/L
>	Sc-1	45	105457.262	0.327	105457.262			mg/L
	Kr	83	43.889	4.385	2.222			mg/L
	N	15	12456.325	6.596	2270.242			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		113.339			
	Be	9					
	Al	27					
>	Sc	45		108.375			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		111.362			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		112.557			
	Sb	121					
	Ba	135					
>	Tb	159		106.994			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-17 @5X

Sample Date/Time: Thursday, December 08, 2016 11:39:48
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-17 @5X.94757
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	862.837	3.376	862.837			ug/L
	Be	9	2.778	124.900	0.003	0.01979	127.14	ug/L
	Al	27	12347.186	1.479	0.107	5.30646	1.13	ug/L
>	Sc	45	102380.649	0.724	102380.649			ug/L
	V	51	1706.873	74.901	-0.001	-0.01592	2452.89	ug/L
	Cr	52	3987.940	4.189	0.001	0.02028	347.23	ug/L
	Mn	55	5756.188	2.510	0.033	0.83428	3.73	ug/L
	Co	59	71.112	14.128	0.001	0.01610	16.53	ug/L
	Ni	60	35.382	20.769	-0.001	-0.08019	11.03	ug/L
	Cu	65	283.895	6.546	0.002	0.26347	7.89	ug/L
	Zn	66	782.271	6.485	0.011	1.22713	9.36	ug/L
>	Ge	72	55409.545	0.832	55409.545			ug/L
	As	75	-147.191	27.854	0.000	0.01026	641.64	ug/L
	Se	82	20.222	39.054	0.000	0.23433	53.90	ug/L
	Y	89	142.224	6.454	132.224			ug/L
	Mo	98	28.706	13.607	-0.000	-0.02040	11.35	ug/L
	Ag	107	15.556	16.366	0.000	0.00236	32.22	ug/L
	Ag	109	16.111	29.863	-0.000	-0.00026	574.65	ug/L
	Cd	111	4.697	99.604	0.000	0.00128	452.71	ug/L
	Cd	114	18.172	237.357	0.000	0.01115	197.12	ug/L
>	In	115	281531.120	0.438	281531.120			ug/L
	Sb	121	183.336	12.889	0.001	0.06201	14.28	ug/L
	Ba	135	1080.093	3.868	0.003	1.68769	4.64	ug/L
>	Tb	159	316583.103	0.886	316583.103			ug/L
	Ho	165	7.222	58.076	0.000			ug/L
	Tl	205	1416.272	3.400	0.004	0.17564	3.80	ug/L
	Pb	208	618.901	2.588	0.001	0.04083	3.21	ug/L
	Bi	209	7.778	81.127	0.000			ug/L
	Th	232	121.668	9.491	0.000	0.00715	15.58	ug/L
	U	238	6.667	90.139	-0.000	-0.00107	51.78	ug/L
	Na	23	210377.198	1.730	1.982	0.09852	2.05	mg/L
	Mg	24	121138.849	0.691	1.164	0.08756	1.40	mg/L
	K	39	445351.041	0.692	0.465	0.01547	4.87	mg/L
	Ca	44	102050.326	0.887	0.963	1.08293	1.00	mg/L
	Fe	54	18893.013	5.469	0.045	0.02177	25.11	mg/L
>	Sc-1	45	102380.649	0.724	102380.649			mg/L
	Kr	83	37.222	5.170	-4.444			mg/L
	N	15	12391.209	7.756	2205.126			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		100.064			
	Be	9					
	Al	27					
>	Sc	45		105.213			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		106.736			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		108.804			
	Sb	121					
	Ba	135					
>	Tb	159		105.506			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-20 @5X

Sample Date/Time: Thursday, December 08, 2016 11:42:52
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-20 @5X.94758
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	868.394	9.359	868.394			ug/L
	Be	9	1.111	86.603	0.001	0.00818	86.62	ug/L
	Al	27	5638.098	2.084	0.042	2.08123	2.22	ug/L
>	Sc	45	101992.149	0.687	101992.149			ug/L
	V	51	1231.716	36.111	-0.005	-0.16055	83.88	ug/L
	Cr	52	4011.287	0.803	0.001	0.03398	62.49	ug/L
	Mn	55	1489.401	3.642	-0.009	-0.21717	7.19	ug/L
	Co	59	42.222	4.558	0.000	0.00809	7.15	ug/L
	Ni	60	-38.089	2.973	-0.001	-0.16996	0.83	ug/L
	Cu	65	112.779	23.661	0.001	0.07670	39.27	ug/L
	Zn	66	192.781	6.546	0.000	0.02957	76.49	ug/L
>	Ge	72	54822.182	1.022	54822.182			ug/L
	As	75	-244.681	40.222	-0.002	-0.14742	105.01	ug/L
	Se	82	17.889	38.834	0.000	0.20094	56.20	ug/L
	Y	89	40.000	18.162	30.000			ug/L
	Mo	98	51.050	15.493	-0.000	-0.00712	64.88	ug/L
	Ag	107	15.000	29.397	0.000	0.00222	61.73	ug/L
	Ag	109	17.778	63.814	0.000	0.00028	1252.61	ug/L
	Cd	111	0.899	89.324	-0.000	-0.00341	29.45	ug/L
	Cd	114	-4.356	680.831	-0.000	-0.00024	6237.45	ug/L
>	In	115	279969.527	0.661	279969.527			ug/L
	Sb	121	121.112	9.666	0.000	0.03821	11.20	ug/L
	Ba	135	4208.640	3.901	0.013	6.70034	4.65	ug/L
>	Tb	159	312251.495	1.408	312251.495			ug/L
	Ho	165	2.222	114.564	0.000			ug/L
	Tl	205	1202.894	8.875	0.003	0.14546	9.69	ug/L
	Pb	208	287.780	9.936	0.000	0.00312	117.89	ug/L
	Bi	209	0.000		0.000			ug/L
	Th	232	92.223	24.933	0.000	0.00430	50.93	ug/L
	U	238	89.445	2.846	0.000	0.00672	3.47	ug/L
	Na	23	332307.764	1.046	3.186	0.15834	1.76	mg/L
	Mg	24	196002.924	1.305	1.903	0.14310	1.95	mg/L
	K	39	547687.431	0.641	1.485	0.04945	2.58	mg/L
	Ca	44	307141.487	0.325	2.978	3.34818	0.53	mg/L
	Fe	54	15862.212	5.726	0.016	0.00773	50.48	mg/L
>	Sc-1	45	101992.149	0.687	101992.149			mg/L
	Kr	83	33.889	18.619	-7.778			mg/L
	N	15	12402.911	8.613	2216.827			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		100.709			
	Be	9					
	Al	27					
>	Sc	45		104.814			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		105.605			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		108.200			
	Sb	121					
	Ba	135					
>	Tb	159		104.062			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-23 @5X

Sample Date/Time: Thursday, December 08, 2016 11:45:57
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-23 @5X.94759
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	856.170	3.644	856.170			ug/L
	Be	9	0.556	173.205	0.001	0.00403	173.21	ug/L
	Al	27	4959.746	2.836	0.036	1.76200	3.92	ug/L
>	Sc	45	101609.309	0.488	101609.309			ug/L
	V	51	1582.904	26.677	-0.002	-0.05196	245.15	ug/L
	Cr	52	4024.629	2.753	0.001	0.04436	106.59	ug/L
	Mn	55	1168.281	4.301	-0.012	-0.29566	4.53	ug/L
	Co	59	55.556	18.083	0.000	0.01189	23.92	ug/L
	Ni	60	-65.857	22.500	-0.002	-0.20430	9.04	ug/L
	Cu	65	91.667	16.364	0.000	0.05371	29.92	ug/L
	Zn	66	133.335	8.197	-0.001	-0.09289	24.16	ug/L
>	Ge	72	54855.796	0.474	54855.796			ug/L
	As	75	-400.425	17.598	-0.005	-0.39754	27.84	ug/L
	Se	82	7.000	170.434	0.000	0.02760	688.74	ug/L
	Y	89	32.778	31.068	22.778			ug/L
	Mo	98	29.140	28.125	-0.000	-0.01987	23.92	ug/L
	Ag	107	13.333		0.000	0.00175	2.09	ug/L
	Ag	109	14.444	29.038	-0.000	-0.00070	186.83	ug/L
	Cd	111	0.515	194.024	-0.000	-0.00389	32.16	ug/L
	Cd	114	-9.764	429.349	-0.000	-0.00318	681.42	ug/L
>	In	115	276599.947	0.878	276599.947			ug/L
	Sb	121	103.334	25.195	0.000	0.03175	31.33	ug/L
	Ba	135	4361.522	1.520	0.014	6.91228	2.38	ug/L
>	Tb	159	313644.865	0.938	313644.865			ug/L
	Ho	165	1.667	0.000	0.000			ug/L
	Tl	205	1062.869	9.607	0.003	0.12311	12.21	ug/L
	Pb	208	298.336	14.781	0.000	0.00419	124.50	ug/L
	Bi	209	1.667	100.000	0.000			ug/L
	Th	232	83.889	23.951	0.000	0.00343	57.47	ug/L
	U	238	1676.696	154.907	0.005	0.15420	156.48	ug/L
	Na	23	385724.888	1.813	3.724	0.18508	2.30	mg/L
	Mg	24	220265.786	1.460	2.149	0.16159	0.98	mg/L
	K	39	558441.374	1.805	1.610	0.05364	4.58	mg/L
	Ca	44	432468.389	1.257	4.223	4.74768	1.20	mg/L
	Fe	54	15345.586	8.441	0.012	0.00558	115.14	mg/L
>	Sc-1	45	101609.309	0.488	101609.309			mg/L
	Kr	83	43.333	21.415	1.667			mg/L
	N	15	12044.967	7.044	1858.884			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		99.291			
	Be	9					
	Al	27					
>	Sc	45		104.421			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		105.670			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		106.898			
	Sb	121					
	Ba	135					
>	Tb	159		104.526			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-26 @5X

Sample Date/Time: Thursday, December 08, 2016 11:49:02
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-26 @5X.94760
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	821.721	7.942	821.721			ug/L
	Be	9	0.000		0.000	0.00000		ug/L
	Al	27	4468.822	4.786	0.032	1.56100	6.41	ug/L
>	Sc	45	99873.322	0.337	99873.322			ug/L
	V	51	1392.516	34.026	-0.003	-0.10270	142.23	ug/L
	Cr	52	4021.294	3.327	0.002	0.06837	69.88	ug/L
	Mn	55	1098.832	3.901	-0.012	-0.30823	3.22	ug/L
	Co	59	48.889	22.699	0.000	0.01024	30.55	ug/L
	Ni	60	-58.074	37.001	-0.002	-0.19590	13.63	ug/L
	Cu	65	105.556	18.969	0.001	0.07108	31.25	ug/L
	Zn	66	315.564	6.688	0.003	0.29735	12.47	ug/L
>	Ge	72	53579.254	1.142	53579.254			ug/L
	As	75	-206.617	22.716	-0.001	-0.09499	80.84	ug/L
	Se	82	17.445	70.606	0.000	0.20024	100.90	ug/L
	Y	89	38.889	15.051	28.889			ug/L
	Mo	98	39.878	52.350	-0.000	-0.01298	97.44	ug/L
	Ag	107	18.333	24.052	0.000	0.00343	41.06	ug/L
	Ag	109	17.778	23.593	0.000	0.00048	282.54	ug/L
	Cd	111	3.627	65.594	0.000	0.00014	2260.21	ug/L
	Cd	114	-32.292	3.727	-0.000	-0.01513	3.80	ug/L
>	In	115	271196.191	0.372	271196.191			ug/L
	Sb	121	96.112	19.023	0.000	0.02970	24.57	ug/L
	Ba	135	4179.731	1.500	0.014	6.74881	1.56	ug/L
>	Tb	159	307799.924	0.248	307799.924			ug/L
	Ho	165	1.111	86.603	0.000			ug/L
	Tl	205	913.956	11.667	0.002	0.10286	16.44	ug/L
	Pb	208	315.559	5.184	0.000	0.00688	29.51	ug/L
	Bi	209	2.222	114.564	0.000			ug/L
	Th	232	59.445	12.643	0.000	0.00108	72.14	ug/L
	U	238	108.890	13.889	0.000	0.00869	16.62	ug/L
	Na	23	380545.649	1.225	3.738	0.18577	1.20	mg/L
	Mg	24	218548.261	1.615	2.169	0.16314	1.86	mg/L
	K	39	553757.987	0.706	1.659	0.05527	2.76	mg/L
	Ca	44	425612.413	0.402	4.228	4.75369	0.38	mg/L
	Fe	54	15337.941	10.837	0.014	0.00678	114.74	mg/L
>	Sc-1	45	99873.322	0.337	99873.322			mg/L
	Kr	83	40.000	34.106	-1.667			mg/L
	N	15	12183.594	8.979	1997.511			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6		95.296			
⌊	Be	9					
⌈	Al	27					
|>	Sc	45		102.637			
|	V	51					
|	Cr	52					
|	Mn	55					
|	Co	59					
|	Ni	60					
⌊	Cu	65					
⌈	Zn	66					
|>	Ge	72		103.211			
|	As	75					
⌊	Se	82					
	Y	89					
⌈	Mo	98					
|	Ag	107					
|	Ag	109					
|	Cd	111					
|	Cd	114					
|>	In	115		104.810			
⌊	Sb	121					
⌈	Ba	135					
|>	Tb	159		102.578			
|	Ho	165					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					
⌈	Na	23					
|	Mg	24					
|	K	39					
|	Ca	44					
|	Fe	54					
⌊>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-29 @5X

Sample Date/Time: Thursday, December 08, 2016 11:52:07
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-29 @5X.94761
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	861.171	8.245	861.171			ug/L
	Be	9	0.556	173.205	0.001	0.00380	173.21	ug/L
	Al	27	13075.333	1.866	0.117	5.77289	1.89	ug/L
>	Sc	45	100544.531	0.698	100544.531			ug/L
	V	51	1669.965	16.818	-0.001	-0.01966	439.49	ug/L
	Cr	52	4019.070	3.043	0.002	0.05751	61.61	ug/L
	Mn	55	1753.809	4.009	-0.006	-0.14544	12.78	ug/L
	Co	59	65.000	14.276	0.001	0.01473	17.03	ug/L
	Ni	60	-65.579	72.224	-0.002	-0.20459	28.46	ug/L
	Cu	65	205.003	2.931	0.002	0.18121	4.56	ug/L
	Zn	66	790.606	8.971	0.011	1.26688	10.59	ug/L
>	Ge	72	54595.208	1.016	54595.208			ug/L
	As	75	-293.910	71.629	-0.003	-0.22725	148.00	ug/L
	Se	82	11.444	99.129	0.000	0.09911	182.31	ug/L
	Y	89	176.114	7.103	166.114			ug/L
	Mo	98	21.111	24.119	-0.000	-0.02451	11.68	ug/L
	Ag	107	19.444	32.451	0.000	0.00372	50.41	ug/L
	Ag	109	16.667	40.000	0.000	0.00008	2604.33	ug/L
	Cd	111	10.081	49.556	0.000	0.00827	74.99	ug/L
	Cd	114	-0.738	1460.064	0.000	0.00154	367.92	ug/L
>	In	115	273281.185	1.812	273281.185			ug/L
	Sb	121	81.112	1.186	0.000	0.02344	2.61	ug/L
	Ba	135	1778.587	3.958	0.006	2.86128	4.28	ug/L
>	Tb	159	308271.862	0.450	308271.862			ug/L
	Ho	165	6.111	41.660	0.000			ug/L
	Tl	205	863.949	12.927	0.002	0.09473	17.92	ug/L
	Pb	208	466.673	7.423	0.001	0.02472	16.26	ug/L
	Bi	209	2.778	34.641	0.000			ug/L
	Th	232	67.778	3.756	0.000	0.00193	15.03	ug/L
	U	238	12.222	67.267	-0.000	-0.00052	149.05	ug/L
	Na	23	181348.953	0.399	1.731	0.08604	1.05	mg/L
	Mg	24	367714.885	2.121	3.638	0.27360	2.13	mg/L
	K	39	580527.298	0.276	1.889	0.06290	2.15	mg/L
	Ca	44	481718.731	0.731	4.758	5.34921	0.80	mg/L
	Fe	54	16894.762	7.838	0.029	0.01376	43.17	mg/L
>	Sc-1	45	100544.531	0.698	100544.531			mg/L
	Kr	83	37.778	25.471	-3.889			mg/L
	N	15	12099.538	8.757	1913.455			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		99.871			
	Be	9					
	Al	27					
>	Sc	45		103.326			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		105.168			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		105.615			
	Sb	121					
	Ba	135					
>	Tb	159		102.736			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-32 @5X

Sample Date/Time: Thursday, December 08, 2016 11:55:12
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-32 @5X.94762
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	911.733	1.594	911.733			ug/L
	Be	9	0.000		0.000	0.00000		ug/L
	Al	27	12845.413	2.221	0.117	5.75535	2.99	ug/L
>	Sc	45	99056.032	0.521	99056.032			ug/L
	V	51	1870.267	48.763	0.002	0.05137	558.63	ug/L
	Cr	52	4112.464	2.346	0.003	0.11468	31.69	ug/L
	Mn	55	4400.699	1.168	0.021	0.53625	1.42	ug/L
	Co	59	53.334	6.250	0.000	0.01165	8.57	ug/L
	Ni	60	-5.950	11.242	-0.001	-0.13083	0.62	ug/L
	Cu	65	369.455	5.268	0.003	0.37077	6.52	ug/L
	Zn	66	221.671	1.302	0.001	0.10339	11.02	ug/L
>	Ge	72	53184.282	2.109	53184.282			ug/L
	As	75	-126.318	100.395	0.000	0.03218	668.63	ug/L
	Se	82	14.222	62.729	0.000	0.14699	96.71	ug/L
	Y	89	47.222	20.069	37.222			ug/L
	Mo	98	55.868	20.970	-0.000	-0.00299	243.38	ug/L
	Ag	107	17.778	56.510	0.000	0.00327	96.29	ug/L
	Ag	109	21.667	7.692	0.000	0.00180	34.56	ug/L
	Cd	111	1.021	253.481	-0.000	-0.00322	104.60	ug/L
	Cd	114	-38.916	59.976	-0.000	-0.01873	66.20	ug/L
>	In	115	269540.619	1.228	269540.619			ug/L
	Sb	121	135.557	12.130	0.000	0.04586	13.74	ug/L
	Ba	135	890.063	3.433	0.003	1.43556	3.10	ug/L
>	Tb	159	306270.110	1.000	306270.110			ug/L
	Ho	165	2.778	34.641	0.000			ug/L
	Tl	205	771.714	5.348	0.002	0.08106	6.80	ug/L
	Pb	208	925.583	4.485	0.002	0.07982	6.13	ug/L
	Bi	209	7.222	26.647	0.000			ug/L
	Th	232	71.112	4.879	0.000	0.00232	12.81	ug/L
	U	238	12.778	41.929	-0.000	-0.00046	113.05	ug/L
	Na	23	94485.572	1.146	0.881	0.04380	1.28	mg/L
	Mg	24	253850.214	2.165	2.544	0.19129	2.15	mg/L
	K	39	676310.211	0.913	2.942	0.09801	3.27	mg/L
	Ca	44	248294.982	0.624	2.473	2.78050	0.12	mg/L
	Fe	54	17965.124	7.055	0.042	0.02022	31.19	mg/L
>	Sc-1	45	99056.032	0.521	99056.032			mg/L
	Kr	83	37.778	20.377	-3.889			mg/L
	N	15	12233.145	9.589	2047.061			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		105.735			
	Be	9					
	Al	27					
>	Sc	45		101.797			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		102.450			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		104.170			
	Sb	121					
	Ba	135					
>	Tb	159		102.069			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-35 @5X

Sample Date/Time: Thursday, December 08, 2016 11:58:16
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-35 @5X.94763
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	848.391	4.060	848.391			ug/L
	Be	9	1.111	86.603	0.001	0.00780	86.70	ug/L
	Al	27	2453.815	2.758	0.012	0.57872	9.64	ug/L
>	Sc	45	98807.859	1.813	98807.859			ug/L
	V	51	1136.622	44.576	-0.006	-0.17747	90.30	ug/L
	Cr	52	4025.185	2.588	0.002	0.08642	64.93	ug/L
	Mn	55	1662.839	1.950	-0.006	-0.16082	9.34	ug/L
	Co	59	15.000	22.222	0.000	0.00058	159.98	ug/L
	Ni	60	12.539	73.019	-0.001	-0.10752	10.68	ug/L
	Cu	65	44.445	15.155	0.000	0.00314	268.39	ug/L
	Zn	66	115.557	20.617	-0.001	-0.11980	44.88	ug/L
>	Ge	72	52788.127	1.349	52788.127			ug/L
	As	75	-285.260	23.648	-0.003	-0.23026	46.54	ug/L
	Se	82	-3.667	253.078	-0.000	-0.14297	106.28	ug/L
	Y	89	13.889	24.980	3.889			ug/L
	Mo	98	13.767	6.640	-0.000	-0.02873	1.86	ug/L
	Ag	107	11.111	45.826	0.000	0.00118	138.02	ug/L
	Ag	109	12.222	7.873	-0.000	-0.00127	23.69	ug/L
	Cd	111	0.939	100.034	-0.000	-0.00332	36.95	ug/L
	Cd	114	-48.352	37.565	-0.000	-0.02401	40.05	ug/L
>	In	115	266944.216	0.739	266944.216			ug/L
	Sb	121	56.111	19.777	0.000	0.01399	31.37	ug/L
	Ba	135	8.889	28.641	0.000	0.00371	112.87	ug/L
>	Tb	159	299590.569	1.055	299590.569			ug/L
	Ho	165	0.556	173.205	0.000			ug/L
	Tl	205	775.048	11.214	0.002	0.08428	15.54	ug/L
	Pb	208	277.780	7.031	0.000	0.00330	69.11	ug/L
	Bi	209	0.556	173.205	0.000			ug/L
	Th	232	56.667	20.588	0.000	0.00095	127.46	ug/L
	U	238	2.222	114.564	-0.000	-0.00147	16.88	ug/L
	Na	23	12810.338	1.148	0.057	0.00284	1.61	mg/L
	Mg	24	1906.402	2.893	0.000	0.00003	237.03	mg/L
	K	39	416262.968	1.386	0.328	0.01091	7.15	mg/L
	Ca	44	5459.050	1.086	0.022	0.02431	6.35	mg/L
	Fe	54	15396.266	9.086	0.016	0.00789	85.25	mg/L
>	Sc-1	45	98807.859	1.813	98807.859			mg/L
	Kr	83	48.334	0.000	6.667			mg/L
	N	15	12186.393	10.033	2000.310			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		98.389			
	Be	9					
	Al	27					
>	Sc	45		101.542			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		101.687			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		103.166			
	Sb	121					
	Ba	135					
>	Tb	159		99.843			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C161021-38 @5X

Sample Date/Time: Thursday, December 08, 2016 12:01:22
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1611171
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C161021-38 @5X.94764
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	915.067	4.376	915.067			ug/L
	Be	9	1.111	86.603	0.001	0.00741	86.83	ug/L
	Al	27	5510.762	1.907	0.042	2.06254	3.70	ug/L
>	Sc	45	100406.393	1.919	100406.393			ug/L
	V	51	1109.354	58.579	-0.006	-0.19194	104.33	ug/L
	Cr	52	4153.047	3.103	0.003	0.10964	60.80	ug/L
	Mn	55	2415.151	2.715	0.001	0.02182	115.40	ug/L
	Co	59	91.112	17.954	0.001	0.02218	19.94	ug/L
	Ni	60	-67.039	66.929	-0.002	-0.20643	26.55	ug/L
	Cu	65	245.560	9.364	0.002	0.22661	9.84	ug/L
	Zn	66	3636.058	3.408	0.063	7.14866	2.03	ug/L
>	Ge	72	54605.314	1.487	54605.314			ug/L
	As	75	-209.224	46.790	-0.001	-0.09149	168.69	ug/L
	Se	82	10.222	61.034	0.000	0.07832	123.92	ug/L
	Y	89	47.222	12.395	37.222			ug/L
	Mo	98	110.435	11.247	0.000	0.02943	26.73	ug/L
	Ag	107	14.444	6.662	0.000	0.00215	13.83	ug/L
	Ag	109	12.778	52.715	-0.000	-0.00119	183.32	ug/L
	Cd	111	17.001	22.196	0.000	0.01715	28.74	ug/L
	Cd	114	10.083	54.138	0.000	0.00725	39.87	ug/L
>	In	115	273774.528	0.603	273774.528			ug/L
	Sb	121	69.445	22.684	0.000	0.01872	32.80	ug/L
	Ba	135	2120.360	2.752	0.007	3.43079	3.55	ug/L
>	Tb	159	306727.717	0.827	306727.717			ug/L
	Ho	165	2.222	43.301	0.000			ug/L
	Tl	205	670.592	13.951	0.001	0.06487	21.46	ug/L
	Pb	208	415.561	11.778	0.001	0.01892	30.57	ug/L
	Bi	209	0.556	173.205	0.000			ug/L
	Th	232	75.556	3.370	0.000	0.00277	7.44	ug/L
	U	238	30.000	14.699	0.000	0.00118	33.78	ug/L
	Na	23	530034.068	1.848	5.209	0.25887	3.66	mg/L
	Mg	24	700395.686	1.172	6.957	0.52319	0.90	mg/L
	K	39	637293.235	1.840	2.462	0.08200	1.35	mg/L
	Ca	44	890396.555	0.581	8.836	9.93516	1.83	mg/L
	Fe	54	15944.084	10.232	0.020	0.00944	99.78	mg/L
>	Sc-1	45	100406.393	1.919	100406.393			mg/L
	Kr	83	40.000	11.024	-1.667			mg/L
	N	15	12242.612	9.890	2056.529			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6		106.122			
⌊	Be	9					
⌈	Al	27					
|>	Sc	45		103.184			
|	V	51					
|	Cr	52					
|	Mn	55					
|	Co	59					
|	Ni	60					
⌊	Cu	65					
⌈	Zn	66					
|>	Ge	72		105.187			
|	As	75					
⌊	Se	82					
	Y	89					
⌈	Mo	98					
|	Ag	107					
|	Ag	109					
|	Cd	111					
|	Cd	114					
|>	In	115		105.806			
⌊	Sb	121					
⌈	Ba	135					
|>	Tb	159		102.221			
|	Ho	165					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					
⌈	Na	23					
|	Mg	24					
|	K	39					
|	Ca	44					
|	Fe	54					
⌊>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-CCV

Sample Date/Time: Thursday, December 08, 2016 12:04:26
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCV.94765
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	764.491	2.904	764.491			ug/L
	Be	9	6689.694	4.218	8.749	52.92581	2.17	ug/L
	Al	27	464422.591	1.081	4.945	244.14315	1.27	ug/L
>	Sc	45	93677.936	0.236	93677.936			ug/L
	V	51	154955.977	1.412	1.637	50.86734	1.20	ug/L
	Cr	52	135153.616	1.258	1.404	51.86617	1.25	ug/L
	Mn	55	191465.107	0.761	2.021	51.05410	1.01	ug/L
	Co	59	171917.018	1.192	1.835	52.49957	0.99	ug/L
	Ni	60	38211.695	1.130	0.407	50.80900	1.00	ug/L
	Cu	65	43316.270	1.351	0.462	51.77946	1.35	ug/L
	Zn	66	23761.196	1.001	0.463	52.23838	0.78	ug/L
>	Ge	72	50992.173	0.412	50992.173			ug/L
	As	75	29538.039	1.616	0.582	51.17497	1.62	ug/L
	Se	82	3108.121	2.729	0.061	52.98023	3.15	ug/L
	Y	89	16.667	17.321	6.667			ug/L
	Mo	98	78319.770	0.375	0.306	50.56303	0.75	ug/L
	Ag	107	152824.789	0.534	0.598	51.66414	0.20	ug/L
	Ag	109	150089.669	0.287	0.587	51.89871	0.25	ug/L
	Cd	111	37858.215	1.216	0.148	51.66279	0.83	ug/L
	Cd	114	91532.115	0.740	0.358	51.35512	0.47	ug/L
>	In	115	255738.973	0.411	255738.973			ug/L
	Sb	121	122431.237	2.218	0.479	52.12602	2.42	ug/L
	Ba	135	30643.849	2.011	0.105	52.41450	1.75	ug/L
>	Tb	159	290969.740	0.667	290969.740			ug/L
	Ho	165	13.889	45.431	0.000			ug/L
	Tl	205	308421.768	1.173	1.059	51.25951	1.00	ug/L
	Pb	208	412376.977	0.113	1.416	51.73657	0.77	ug/L
	Bi	209	12.778	32.825	0.000			ug/L
	Th	232	450950.351	1.061	1.550	49.21168	0.57	ug/L
	U	238	496148.117	0.440	1.705	49.99942	0.72	ug/L
	Na	23	9622533.787	1.352	102.648	5.10169	1.46	mg/L
	Mg	24	6232324.660	0.826	66.511	5.00157	0.95	mg/L
	K	39	14643795.622	1.893	152.435	5.07742	1.93	mg/L
	Ca	44	423730.290	0.949	4.490	5.04794	0.82	mg/L
	Fe	54	982698.199	0.878	10.351	4.99571	1.10	mg/L
>	Sc-1	45	93677.936	0.236	93677.936			mg/L
	Kr	83	36.667	12.026	-5.000			mg/L
	N	15	15730.928	5.830	5544.845			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		88.659			
	Be	9	105.852				
	Al	27	97.657				
>	Sc	45		96.270			
	V	51	101.735				
	Cr	52	103.732				
	Mn	55	102.108				
	Co	59	104.999				
	Ni	60	101.618				
	Cu	65	103.559				
	Zn	66	104.477				
>	Ge	72		98.227			
	As	75	102.350				
	Se	82	105.960				
	Y	89					
	Mo	98	101.126				
	Ag	107	103.328				
	Ag	109	103.797				
	Cd	111	103.326				
	Cd	114					
>	In	115		98.836			
	Sb	121	104.252				
	Ba	135	104.829				
>	Tb	159		96.970			
	Ho	165					
	Tl	205	102.519				
	Pb	208	103.473				
	Bi	209					
	Th	232	98.423				
	U	238	99.999				
	Na	23	102.034				
	Mg	24	100.031				
	K	39	101.548				
	Ca	44	100.959				
	Fe	54	99.914				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-CCB

Sample Date/Time: Thursday, December 08, 2016 12:07:44
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCB.94766
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	788.939	1.772	788.939			ug/L
	Be	9	1.667	0.000	0.002	0.01278	1.75	ug/L
	Al	27	1767.479	19.861	0.006	0.27582	63.32	ug/L
>	Sc	45	94345.680	0.888	94345.680			ug/L
	V	51	1013.705	11.114	-0.006	-0.20172	19.17	ug/L
	Cr	52	3281.973	2.692	-0.004	-0.13363	34.16	ug/L
	Mn	55	1657.060	3.513	-0.006	-0.14244	10.42	ug/L
	Co	59	29.445	36.391	0.000	0.00519	63.83	ug/L
	Ni	60	107.095	17.085	0.000	0.01853	136.09	ug/L
	Cu	65	41.667	28.845	0.000	0.00207	666.70	ug/L
	Zn	66	158.335	9.356	-0.000	-0.01859	192.45	ug/L
>	Ge	72	51297.447	1.041	51297.447			ug/L
	As	75	-208.001	44.618	-0.001	-0.11268	142.42	ug/L
	Se	82	8.111	123.448	0.000	0.05426	314.72	ug/L
	Y	89	12.222	34.317	2.222			ug/L
	Mo	98	116.112	3.315	0.000	0.03667	4.10	ug/L
	Ag	107	35.000	26.513	0.000	0.00927	35.03	ug/L
	Ag	109	36.667	4.545	0.000	0.00718	9.19	ug/L
	Cd	111	6.011	83.523	0.000	0.00348	190.46	ug/L
	Cd	114	-8.693	224.421	-0.000	-0.00287	375.69	ug/L
>	In	115	259487.987	1.514	259487.987			ug/L
	Sb	121	733.932	4.090	0.003	0.29929	5.75	ug/L
	Ba	135	5.556	105.357	-0.000	-0.00187	517.19	ug/L
>	Tb	159	300307.838	0.467	300307.838			ug/L
	Ho	165	1.111	173.205	0.000			ug/L
	Tl	205	1361.815	1.912	0.004	0.17862	2.86	ug/L
	Pb	208	222.779	10.212	-0.000	-0.00347	78.41	ug/L
	Bi	209	1.667	100.000	0.000			ug/L
	Th	232	684.482	7.307	0.002	0.06734	8.16	ug/L
	U	238	70.000	23.450	0.000	0.00515	31.19	ug/L
	Na	23	7911.675	3.332	0.011	0.00056	31.06	mg/L
	Mg	24	2138.700	3.916	0.004	0.00028	18.36	mg/L
	K	39	418557.157	1.372	0.551	0.01836	15.48	mg/L
	Ca	44	3703.876	3.370	0.006	0.00632	28.92	mg/L
	Fe	54	13456.529	7.246	0.003	0.00154	351.17	mg/L
>	Sc-1	45	94345.680	0.888	94345.680			mg/L
	Kr	83	35.000	9.524	-6.667			mg/L
	N	15	10608.513	11.030	422.430			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		91.494			
	Be	9					
	Al	27					
>	Sc	45		96.956			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		98.815			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		100.285			
	Sb	121					
	Ba	135					
>	Tb	159		100.082			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					