ENVIRONMENTAL DYNAMICS INC.

2195 – 2ND Ave
Whitehorse, YT Y1A 3T8
P: (867) 393-4882 ▪ F: (867) 393-4883

August 10, 2014

EDI Job Number: 14-Y-0270

Assessment and Abandoned Mines
Yukon Government
Box 2703, K-419
Whitehorse, YT Y1A 2C6

Attention: Adrienne Turcotte, Project Officer

Re: Rose Creek Monitoring Program – July 07, 2014 (Revised)

Assessment and Abandoned Mines (AAM) retained EDI Environmental Dynamics Inc. (EDI) to conduct water quality sampling at the Faro Mine Site. The Rose Creek Monitoring Program has been ongoing since November 2013 in response to changing water quality conditions. Table 1, attached, summarizes the field trips completed for the 2014 fiscal year. The intent of this memo is to summarize field data obtained during the July 07, 2014 field trip.

The objective of this trip was to conduct surface water sampling at 10 monitoring sites, including QA/QC samples. In addition, as requested by AAM, four surface water samples were taken across the width of the channel at sites NF2 and X2 and velocity measurements were collected to calculate stream discharge at sites NF2, NF2-A and X2.

Weather conditions on July 07, 2014 were overcast, with air temperatures near 20˚C. All 10 sites were sampled. Figure 1 provides the locations of all sampling sites. Table 2 summarizes in-situ data collected at each sampling site. Tables 3 to 5 provide all velocity measurements and calculated discharge. Figures 2 to 4 provide a water depth cross-section at each of the discharge sites. Representative photos of each site and the ALS laboratory analytical reports for all water chemistry samples submitted during this field trip are attached.

If you have any questions, please do not hesitate to contact me at (867) 393-4882 or through email at mkearns@edynamics.com.

Yours truly,

EDI Environmental Dynamics Inc.

Submitted via email

Meighan Kearns, B.Sc., R.P.Bio.
Aquatic Biologist

Attachments:

- Table 1. Summary of field trips conducted in the 2014 fiscal year, Rose Creek Monitoring Program.
- Table 2. Surface water sampling field data, Rose Creek Monitoring Program, July 07, 2014.
- Table 3. Velocity data and calculated discharge, site NF2, Rose Creek Monitoring Program, July 07, 2014.
- Table 4. Velocity data and calculated discharge, site NF2-A, Rose Creek Monitoring Program, July 07, 2014.
- Table 5. Velocity data and calculated discharge, site X2, Rose Creek Monitoring Program, July 07, 2014.
- Figure 1. Location of surface water sampling, Rose Creek Monitoring Program, July 07, 2014.
- Figure 2. Water depth cross-section, site NF2, Rose Creek Monitoring Program, July 07, 2014.
- Figure 3. Water depth cross-section, site NF2-A, Rose Creek Monitoring Program, July 07, 2014.
- Figure 4. Water depth cross-section, site X2, Rose Creek Monitoring Program, July 07, 2014.
- Photos 1 – 10. Representative site photos.
- ALS Laboratory Analytical Reports

Table 1. Summary of field trips conducted in the 2014 fiscal year, Rose Creek Monitoring Program.

Field Date	General Tasks
April 01, 2014	• Surface water sampling
April 08, 2014	• Surface water sampling
April 15, 2014	• Surface water sampling
April 22, 2014	• Surface water sampling
April 29, 2014	• Surface water sampling
May 06, 2014	• Surface water sampling
May 13, 2014	• Surface water sampling
May 20, 2014	• Surface water sampling
May 26-27, 2014	• Surface water sampling; AAM Faro Pelly Aquatics Program combo trip
June 09,2014	• Surface water sampling
June 23-24, 2014	• Surface water sampling; AAM Faro Pelly Aquatics Program combo trip
July 07, 2014	• Surface water sampling; discharge calculations (NF2, NF2-A, X2)

Table 2. Surface water sampling field data, Rose Creek Monitoring Program, July 07, 2014.

	UTM Location		Sample		QA/ QC	In-situ Parameters			
Site Name	Easting	Northing	Date	Time	Rep. ID	Temp (°C)	SPC (µS/cm)	pH	Turbidity (NTU)
R3	0575304	6916835	07-July-2014	14:40	R3-r	10.8	325.3	7.98	1.12
X14	0579343	6915078	07-July-2014	15:30	-	10.8	352.9	7.89	4.53
X10	0579419	6914867	07-July-2014	15:40	-	10.7	172.9	8.22	2.45
X3A	0583156	6912540	07-July-2014	16:00	-	10.4	161.8	8.01	2.82
X2-1 [(a)]	0584066	6912764	07-July-2014	16:35	-	9.1	147.4	7.79	3.79
X2-2 [(b)]	0584066	6912764	07-July-2014	16:40	-	9.2	147.5	7.78	3.42
X2-3 [(c)]	0584066	6912764	07-July-2014	16:45	-	9.2	147.4	7.78	2.66
X2-4 [(d)]	0584066	6912764	07-July-2014	17:00	-	9.2	147.4	7.76	3.10
NF2-A	0584703	6913025	07-July-2014	18:30	-	9.7	154.9	7.65	2.51
NF2-B	0584703	6913018	07-July-2014	18:45	-	9.8	141.6	7.74	1.78
NF2-1 [(e)]	0584691	6913018	07-July-2014	17:20	-	9.4	154.6	7.64	2.09
NF2-2 [(f)]	0584691	6913018	07-July-2014	17:35	-	9.4	141.6	7.73	2.37
NF2-3 [(g)]	0584691	6913018	07-July-2014	17:45	-	9.5	141.1	7.74	2.23
NF2-4 [(h)]	0584691	6913018	07-July-2014	17:55	-	9.5	141.0	7.72	2.16
NF1	0584895	6913277	07-July-2014	19:20	-	11.0	316.5	6.55	1.72
R10	0585103	6913487	07-July-2014	19:30	R10-r	10.2	140.8	7.80	1.64

Where, UTM = Universal Transverse Mercator (NAD 83/ Zone 8);
QA/QC Rep = Quality Assurance/ Quality Control Replicate;
Temp = water temperature; and,
SPC = specific conductance.

Notes: [(a)] sampled from right downstream bank (RDB); [(b)] sampled 1.5 m from RDB; [(c)] sampled 3.0 m from RDB; [(d)] sampled 4.5 m from RDB; [(e)] sampled 1.2 m from RDB; [(f)] sampled 4.2 m from RDB; [(g)] sampled 6.2 m from RDB; [(h)] sampled 8.2 m from RDB

Table 3. Velocity data and calculated discharge, site NF2, Rose Creek Monitoring Program, July 07, 2014.

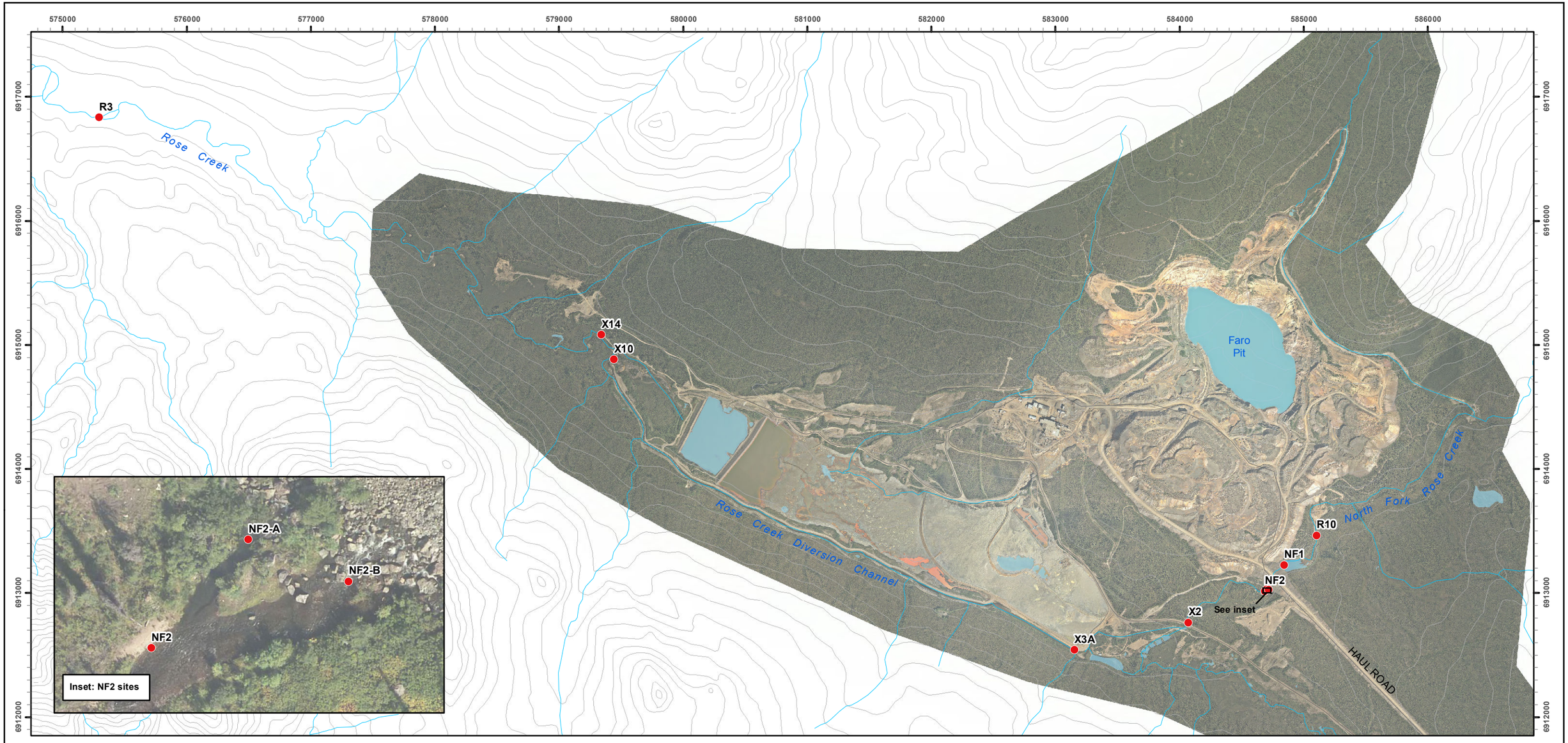
Station Number	Panel Distance (m)	Depth (m)	Panel Velocity (m/s)
0	0.8	0.00	N/A
1	1.0	0.70	0.01
2	1.5	0.30	0.51
3	2.0	0.50	0.69
4	2.5	0.60	0.73
5	3.0	0.52	0.85
6	3.5	0.46	0.92
7	4.0	0.36	0.79
8	4.5	0.25	0.93
9	5.0	0.25	0.87
10	5.5	0.23	0.69
11	6.0	0.18	0.68
12	6.5	0.16	0.54
13	7.0	0.15	1.05
14	7.5	0.21	0.75
15	8.0	0.22	1.02
16	8.5	0.23	0.99
17	9.0	0.25	0.71
18	9.5	0.20	0.71
19	10.0	0.12	0.58
20	10.5	0.00	N/A
		Discharge	2.03 m^3/s

Table 4. Velocity data and calculated discharge, site NF2-A, Rose Creek Monitoring Program, July 07, 2014.

Station Number	Panel Distance (m)	Depth (m)	Panel Velocity (m/s)
0	1.1	0.00	N/A
1	1.2	0.20	0.08
2	1.4	0.25	0.10
3	1.6	0.33	0.08
4	1.8	0.38	0.07
5	2.0	0.56	0.01
6	2.2	0.85	0.20
7	2.4	0.94	0.16
8	2.6	1.05	0.28
9	2.8	1.08	0.20
10	3.0	1.20	0.35
11	3.2	1.47	0.23
12	3.4	1.50	0.49
13	3.6	1.60	0.36
14	3.8	1.50	0.38
15	4.0	1.45	0.15
16	4.2	1.40	0.22
17	4.4	1.40	0.05
18	4.6	0.00	N/A
		Discharge	0.83 m^3/s

Table 5. Velocity data and calculated discharge, site X2, Rose Creek Monitoring Program, July 07, 2014.

Station Number	Panel Distance (m)	Depth (m)	Panel Velocity (m/s)
0	1.6	0.00	N/A
1	1.8	0.05	0.01
2	2.1	0.18	0.15
3	2.4	0.27	0.33
4	2.7	0.33	0.46
5	3.0	0.38	0.69
6	3.3	0.40	0.89
7	3.6	0.41	1.12
8	3.9	0.38	1.03
9	4.2	0.42	1.29
10	4.5	0.41	1.12
11	4.8	0.47	0.69
12	5.1	0.51	1.04
13	5.4	0.60	1.05
14	5.7	0.52	1.04
15	6.0	0.47	0.15
16	6.3	0.47	0.91
17	6.6	0.43	0.5
18	6.9	0.21	0.82
19	7.2	0.21	0.06
20	7.5	0.20	0.09
21	7.8	0.00	N/A
		Discharge	1.70 m^3/s



Location of surface water sampling, Rose Creek Monitoring Program, July 07, 2014

Legend

- Surface Water Sample Collected
- Road (Mine Access/Haul)
- Topographic Contour (30 m Interval)

N
W E
S

0 500 1,000 1,500 2,000
metres

Map Scale = 1:30,000 (printed on 11 x 17)
Map Projection: North American Datum 1983 UTM Zone 8N

Data sources

1:50,000 topographic spatial data provided by Geomatics - Yukon Government via online source (Corporate Spatial Warehouse) www.geomaticsyukon.ca.

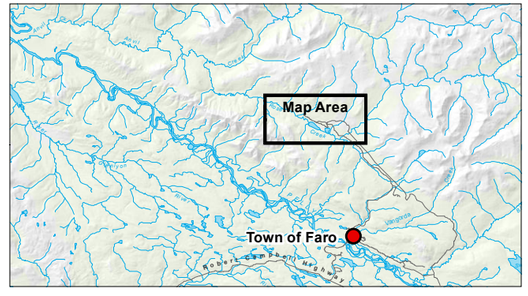
National Road Network courtesy of Her Majesty the Queen in Right of Canada, Department of Natural Resources. All Rights Reserved.

Detailed toppgraphic features of the Faro, Grum and Vangorda mine sites were provided by Yukon Government - Energy, Mines and Resources - Assessment and Abandoned Mines Branch (March 2012).

Project data displayed is site specific. Data collected by EDI Environmental Dynamics Inc. was obtained using Garmin GPS technology.

This document is not an official land survey and the spatial data presented is subject to change.

Drawn:	Checked:	FIGURE 1	Date: 29/04/2014
LG	MK		



EDI

Map Prepared by
EDI Environmental Dynamics Inc.

Path: J:\Yukon\Projects\2014\14_Y_0270_AAM_Faro_RCSampling\Mapping\Fig1_WaterSampling_01Apr2014.mxd

Figure 2. Water depth cross-section, site NF2, Rose Creek Monitoring Program, July 07, 2014.

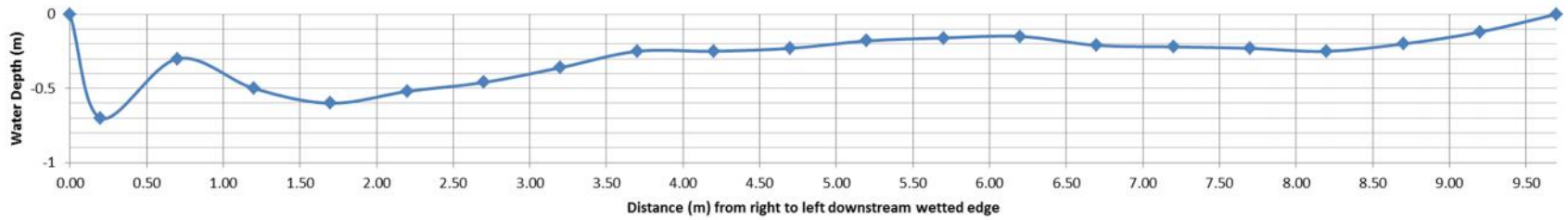


Figure 3. Water depth cross-section, site NF2-A, Rose Creek Monitoring Program, July 07, 2014.

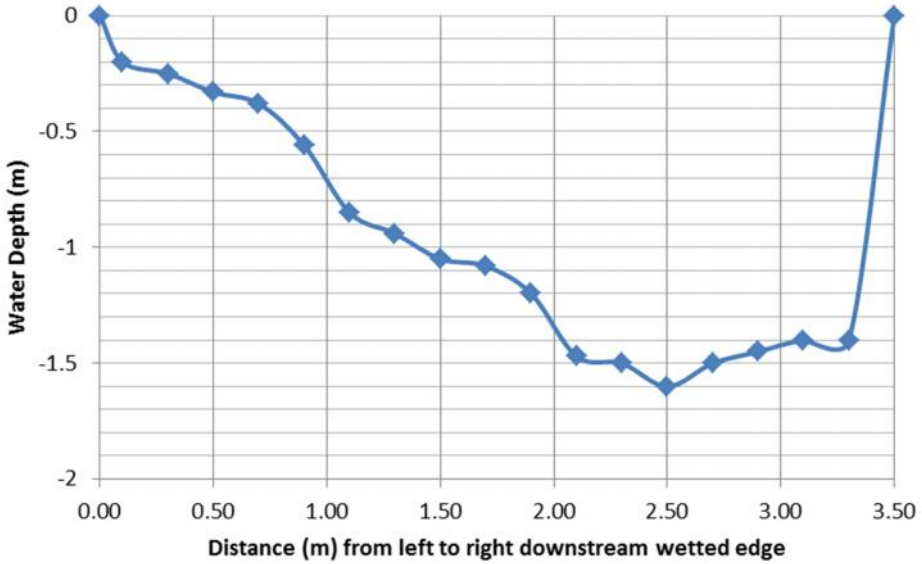
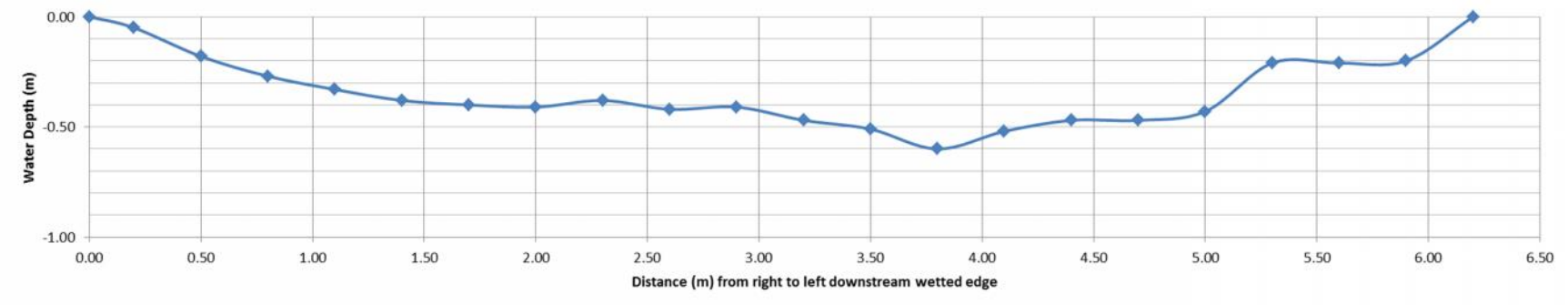


Figure 4. Water depth cross-section, site X2, Rose Creek Monitoring Program, July 07, 2014.



Site Photos

Photo 1. Upstream view at surface water sampling site R3, July 07, 2014

Photo 2. Downstream view at surface water sampling site X14, July 07, 2014.

Photo 3. Upstream view at surface water sampling site X10, July 07, 2014.

Photo 4. Downstream view from surface water sampling site X3A, July 07, 2014.

Photo 5. Upstream view at surface water sampling site X2, July 07, 2014.

Photo 6. Downstream view from surface water sampling site NF2-A, July 07, 2014.

Photo 7. Upstream view at surface water sampling site NF2-B, July 07, 2014.

Photo 8. Upstream view at surface water sampling site NF2, July 07, 2014.

Photo 9. Upstream view at surface water sampling site NF1, July 07, 2014.

Photo 10. Upstream view at surface water sampling site R10, July 07, 2014.

ENVIRONMENTAL DYNAMICS INC.
ATTN: Meighan Kearns
2195 - 2nd Avenue
Whitehorse YT Y1A 3T8

Date Received: 09-JUL-14
Report Date: 21-JUL-14 18:06 (MT)
Version: FINAL

Client Phone: 867-393-4882

Certificate of Analysis

Lab Work Order #: L1483514

Project P.O. #: NOT SUBMITTED
Job Reference: 14-Y-0270
C of C Numbers: 1, 2, 3
Legal Site Desc:

Can Dang
Senior Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1483514-1 Grab 07-JUL-14 14:40 R3	L1483514-2 Grab 07-JUL-14 14:45 R3-R	L1483514-3 Grab 07-JUL-14 15:30 X14	L1483514-4 Grab 07-JUL-14 15:40 X10	L1483514-5 Grab 07-JUL-14 16:00 X3A
WATER						
Physical Tests	Conductivity (uS/cm)	301	318	358	173	158
	Hardness (as CaCO3) (mg/L)	160	158	172	86.5	79.6
	pH (pH)	8.08	7.97	7.91	7.95	7.88
	Total Suspended Solids (mg/L)	1.4	1.4	1.4	1.4	1.4
	Total Dissolved Solids (mg/L)	203	202	226	104	91.9
Anions and Nutrients	Alkalinity, Total (as CaCO3) (mg/L)	93.3	92.7	98.1	87.5	73.4
	Ammonia, Total (as N) (mg/L)	0.0240	0.0239	0.0392	<0.0050	<0.0050
	Chloride (Cl) (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50
	Fluoride (F) (mg/L)	0.089	0.093	0.094	0.093	0.090
	Nitrate (as N) (mg/L)	0.0280	0.0267	0.0155	0.0117	0.0162
	Nitrite (as N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	Phosphorus (P)-Total (mg/L)	<0.0020	<0.0020	0.0532	0.0047	0.0049
	Sulfate (SO4) (mg/L)	81.3	81.4	96.5	14.7	13.5
	Anion Sum (meq/L)	3.56	3.55	3.98	2.06	1.76
	Cation Sum (meq/L)	3.40	3.35	3.66	1.83	1.69
	Cation - Anion Balance (%)	-2.4	-2.9	-4.2	-5.9	-1.8
Organic / Inorganic Carbon	Dissolved Organic Carbon (mg/L)	3.15	3.02	3.24	3.32	3.27
	Total Organic Carbon (mg/L)	3.03	3.45	3.17	3.32	3.22
Total Metals	Aluminum (Al)-Total (mg/L)	0.0259	0.0259	0.0320	0.0300	0.0410
	Antimony (Sb)-Total (mg/L)	0.00011	0.00011	<0.00010	<0.00010	<0.00010
	Arsenic (As)-Total (mg/L)	0.00044	0.00043	0.00047	0.00044	0.00050
	Barium (Ba)-Total (mg/L)	0.0387	0.0393	0.0402	0.0415	0.0397
	Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Bismuth (Bi)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
	Boron (B)-Total (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010
	Cadmium (Cd)-Total (mg/L)	0.000049	0.000048	0.000060	0.000062	0.000066
	Calcium (Ca)-Total (mg/L)	45.5	46.6	51.4	25.0	23.8
	Chromium (Cr)-Total (mg/L)	0.00014	0.00015	0.00022	0.00016	0.00018
	Cobalt (Co)-Total (mg/L)	0.00134	0.00133	0.00194	0.00030	0.00036
	Copper (Cu)-Total (mg/L)	0.00077	0.00076	0.00076	0.00085	0.00079
	Iron (Fe)-Total (mg/L)	0.264	0.271	0.352	0.309	0.188
	Lead (Pb)-Total (mg/L)	0.000330	0.000332	0.000428	0.000433	0.000507
	Lithium (Li)-Total (mg/L)	0.00295	0.00294	0.00277	0.00187	0.00230
	Magnesium (Mg)-Total (mg/L)	10.2	10.2	10.4	5.83	5.07
	Manganese (Mn)-Total (mg/L)	0.990	0.994	1.27	0.0357	0.0376
	Molybdenum (Mo)-Total (mg/L)	0.000407	0.000428	0.000446	0.000406	0.000353

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1483514-6 Grab 07-JUL-14 16:35 X2-1	L1483514-7 Grab 07-JUL-14 16:40 X2-2	L1483514-8 Grab 07-JUL-14 16:45 X2-3	L1483514-9 Grab 07-JUL-14 17:00 X2-4	L1483514-10 Grab 07-JUL-14 17:20 NF2-1
WATER						
Physical Tests	Conductivity (uS/cm)	143	147	145	145	156
	Hardness (as CaCO3) (mg/L)	73.3	73.0	71.2	72.6	75.5
	pH (pH)	7.72	7.78	7.75	7.75	7.60
	Total Suspended Solids (mg/L)	2.8	2.8	2.8	3.0	2.8
	Total Dissolved Solids (mg/L)	85.7	85.2	82.2	85.1	92.2
Anions and Nutrients	Alkalinity, Total (as CaCO3) (mg/L)	68.9	68.4	64.2	68.6	71.3
	Ammonia, Total (as N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Chloride (Cl) (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50
	Fluoride (F) (mg/L)	0.086	0.085	0.087	0.085	0.090
	Nitrate (as N) (mg/L)	0.0221	0.0225	0.0223	0.0220	0.0283
	Nitrite (as N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	Phosphorus (P)-Total (mg/L)	0.0066	0.0064	0.0070	0.0084	0.0073
	Sulfate (SO4) (mg/L)	12.5	12.5	12.5	12.5	16.6
	Anion Sum (meq/L)	1.64	1.63	1.55	1.64	1.78
	Cation Sum (meq/L)	1.56	1.56	1.52	1.55	1.63
	Cation - Anion Balance (%)	-2.5	-2.4	-0.9	-2.7	-4.2
Organic / Inorganic Carbon	Dissolved Organic Carbon (mg/L)	3.13	3.09	3.04	3.12	3.17
	Total Organic Carbon (mg/L)	3.02	3.07	3.05	3.04	2.96
Total Metals	Aluminum (Al)-Total (mg/L)	0.0762	0.0754	0.0740	0.0804	0.0950
	Antimony (Sb)-Total (mg/L)	0.00011	0.00011	0.00010	0.00010	0.00011
	Arsenic (As)-Total (mg/L)	0.00065	0.00065	0.00067	0.00063	0.00065
	Barium (Ba)-Total (mg/L)	0.0409	0.0413	0.0427	0.0427	0.0418
	Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Bismuth (Bi)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
	Boron (B)-Total (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010
	Cadmium (Cd)-Total (mg/L)	0.000127	0.000125	0.000121	0.000126	0.000392
	Calcium (Ca)-Total (mg/L)	20.6	20.5	20.8	20.4	20.2
	Chromium (Cr)-Total (mg/L)	0.00024	0.00025	0.00024	0.00022	0.00024
	Cobalt (Co)-Total (mg/L)	0.00075	0.00074	0.00075	0.00075	0.00236
	Copper (Cu)-Total (mg/L)	0.00087	0.00086	0.00085	0.00087	0.00091
	Iron (Fe)-Total (mg/L)	0.262	0.258	0.258	0.268	0.334
	Lead (Pb)-Total (mg/L)	0.00133	0.00116	0.00120	0.00123	0.00140
	Lithium (Li)-Total (mg/L)	0.00265	0.00269	0.00264	0.00263	0.00271
	Magnesium (Mg)-Total (mg/L)	5.07	5.22	4.97	5.10	5.86
	Manganese (Mn)-Total (mg/L)	0.0575	0.0572	0.0577	0.0572	0.134
	Molybdenum (Mo)-Total (mg/L)	0.000418	0.000423	0.000438	0.000416	0.000430

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1483514-11 Grab 07-JUL-14 17:35 NF2-2	L1483514-12 Grab 07-JUL-14 17:45 NF2-3	L1483514-13 Grab 07-JUL-14 17:55 NF2-4	L1483514-14 Grab 07-JUL-14 18:30 NF2-A	L1483514-15 Grab 07-JUL-14 18:45 NF2-B
WATER						
Physical Tests	Conductivity (uS/cm)	137	139	141	155	143
	Hardness (as CaCO3) (mg/L)	68.2	70.2	67.4	73.0	66.7
	pH (pH)	7.64	7.68	7.70	7.77	7.75
	Total Suspended Solids (mg/L)	3.6	3.6	3.6	10.4	4.2
	Total Dissolved Solids (mg/L)	77.4	79.0	79.0	87.5	82.4
Anions and Nutrients	Alkalinity, Total (as CaCO3) (mg/L)	63.2	64.6	66.4	66.8	72.5
	Ammonia, Total (as N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Chloride (Cl) (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50
	Fluoride (F) (mg/L)	0.081	0.082	0.082	0.090	0.084
	Nitrate (as N) (mg/L)	0.0248	0.0254	0.0253	0.0286	0.0260
	Nitrite (as N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	Phosphorus (P)-Total (mg/L)	0.0081	0.0076	0.0085	0.0165	0.0084
	Sulfate (SO4) (mg/L)	9.54	9.53	9.59	15.3	9.60
	Anion Sum (meq/L)	1.47	1.50	1.53	1.66	1.65
	Cation Sum (meq/L)	1.45	1.49	1.44	1.58	1.42
	Cation - Anion Balance (%)	-0.6	-0.1	-3.2	-2.5	-7.5
Organic / Inorganic Carbon	Dissolved Organic Carbon (mg/L)	3.05	3.11	3.09	3.14	3.00
	Total Organic Carbon (mg/L)	2.96	3.01	3.06	3.21	3.06
Total Metals	Aluminum (Al)-Total (mg/L)	0.105	0.0958	0.101	0.252	0.0989
	Antimony (Sb)-Total (mg/L)	0.00011	0.00010	<0.00010	0.00010	<0.00010
	Arsenic (As)-Total (mg/L)	0.00073	0.00071	0.00072	0.00088	0.00071
	Barium (Ba)-Total (mg/L)	0.0438	0.0424	0.0423	0.0448	0.0429
	Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Bismuth (Bi)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
	Boron (B)-Total (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010
	Cadmium (Cd)-Total (mg/L)	0.000027	0.000015	0.000016	0.000355	0.000016
	Calcium (Ca)-Total (mg/L)	20.2	20.5	20.5	20.5	21.2
	Chromium (Cr)-Total (mg/L)	0.00028	0.00026	0.00030	0.00056	0.00029
	Cobalt (Co)-Total (mg/L)	0.00018	0.00011	0.00011	0.00219	0.00011
	Copper (Cu)-Total (mg/L)	0.00091	0.00085	0.00089	0.00125	0.00089
	Iron (Fe)-Total (mg/L)	0.291	0.259	0.274	0.607	0.274
	Lead (Pb)-Total (mg/L)	0.00205	0.00139	0.00150	0.00456	0.00144
	Lithium (Li)-Total (mg/L)	0.00260	0.00259	0.00261	0.00273	0.00277
	Magnesium (Mg)-Total (mg/L)	4.85	4.82	4.61	5.22	4.62
	Manganese (Mn)-Total (mg/L)	0.0490	0.0209	0.0228	0.127	0.0225
	Molybdenum (Mo)-Total (mg/L)	0.000420	0.000426	0.000424	0.000427	0.000428

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1483514-16 Grab 07-JUL-14 22:40 FIELD BLANK	L1483514-17 Water 10-JUN-14 12:00 TRIP BLANK	L1483514-18 Grab 07-JUL-14 19:30 R10	L1483514-19 Grab 07-JUL-14 19:20 NF1	L1483514-20 Grab 07-JUL-14 19:35 R10-R
WATER						
Physical Tests	Conductivity (uS/cm)	<2.0	<2.0	139	143	147
	Hardness (as CaCO3) (mg/L)	<0.50	<0.50	67.5	74.1	67.6
	pH (pH)	5.97	5.94	7.72	7.67	7.85
	Total Suspended Solids (mg/L)	<1.0	<1.0	3.8	1.0	2.4
	Total Dissolved Solids (mg/L)	<1.0	<1.0	80.7	82.9	81.6
Anions and Nutrients	Alkalinity, Total (as CaCO3) (mg/L)	<2.0	<2.0	69.8	66.5	70.9
	Ammonia, Total (as N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Chloride (Cl) (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50
	Fluoride (F) (mg/L)	<0.020	<0.020	0.084	0.082	0.085
	Nitrate (as N) (mg/L)	<0.0050	<0.0050	0.0234	0.0138	0.0233
	Nitrite (as N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	Phosphorus (P)-Total (mg/L)	<0.0020	<0.0020	0.0068	0.0068	0.0063
	Sulfate (SO4) (mg/L)	<0.50	<0.50	9.36	10.6	9.39
	Anion Sum (meq/L)	<0.10	<0.10	1.60	1.56	1.62
	Cation Sum (meq/L)	<0.10	<0.10	1.44	1.58	1.44
	Cation - Anion Balance (%)	0.0	0.0	-5.1	0.7	-5.7
Organic / Inorganic Carbon	Dissolved Organic Carbon (mg/L)	<0.50		3.02	3.27	3.06
	Total Organic Carbon (mg/L)	<0.50	<0.50	3.08	3.20	3.06
Total Metals	Aluminum (Al)-Total (mg/L)	<0.0030	<0.0030	0.0659	0.0392	0.0661
	Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	0.00010	<0.00010	<0.00010
	Arsenic (As)-Total (mg/L)	<0.00010	<0.00010	0.00066	0.00068	0.00065
	Barium (Ba)-Total (mg/L)	<0.000050	<0.000050	0.0413	0.0421	0.0405
	Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Bismuth (Bi)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
	Boron (B)-Total (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010
	Cadmium (Cd)-Total (mg/L)	<0.000010	<0.000010	<0.000010	0.000015	0.000016
	Calcium (Ca)-Total (mg/L)	<0.020	<0.020	19.8	20.8	19.3
	Chromium (Cr)-Total (mg/L)	<0.00010	<0.00010	0.00020	0.00017	0.00020
	Cobalt (Co)-Total (mg/L)	<0.00010	<0.00010	<0.00010	0.00017	<0.00010
	Copper (Cu)-Total (mg/L)	<0.00050	<0.00050	0.00076	0.00082	0.00079
	Iron (Fe)-Total (mg/L)	<0.010	<0.010	0.214	0.219	0.216
	Lead (Pb)-Total (mg/L)	<0.000050	<0.000050	0.000562	0.000736	0.000629
	Lithium (Li)-Total (mg/L)	<0.00050	<0.00050	0.00261	0.00232	0.00241
	Magnesium (Mg)-Total (mg/L)	<0.0050	<0.0050	4.77	4.65	4.57
	Manganese (Mn)-Total (mg/L)	<0.000050	<0.000050	0.0199	0.0613	0.0203
	Molybdenum (Mo)-Total (mg/L)	<0.000050	<0.000050	0.000409	0.000430	0.000421

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1483514-1 Grab 07-JUL-14 14:40 R3	L1483514-2 Grab 07-JUL-14 14:45 R3-R	L1483514-3 Grab 07-JUL-14 15:30 X14	L1483514-4 Grab 07-JUL-14 15:40 X10	L1483514-5 Grab 07-JUL-14 16:00 X3A
WATER						
Total Metals	Nickel (Ni)-Total (mg/L)	0.00196	0.00193	0.00265	0.00104	0.00099
	Phosphorus (P)-Total (mg/L)	<0.30	<0.30	<0.30	<0.30	<0.30
	Potassium (K)-Total (mg/L)	0.937	0.933	0.936	0.588	0.591
	Selenium (Se)-Total (mg/L)	0.00020	0.00023	0.00023	0.00021	0.00019
	Silicon (Si)-Total (mg/L)	4.64	4.70	4.16	4.41	4.13
	Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Sodium (Na)-Total (mg/L)	2.82	2.89	3.06	1.66	1.67
	Strontium (Sr)-Total (mg/L)	0.160	0.173	0.184	0.113	0.112
	Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Titanium (Ti)-Total (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010
	Uranium (U)-Total (mg/L)	0.00115	0.00118	0.00129	0.00104	0.000998
	Vanadium (V)-Total (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	Zinc (Zn)-Total (mg/L)	0.0587	0.0584	0.0769	0.0855	0.0904
	Zirconium (Zr)-Total (mg/L)	<0.00080	<0.00080	<0.00080	<0.00080	<0.00080
Dissolved Metals	Dissolved Metals Filtration Location	FIELD	FIELD	FIELD	FIELD	FIELD
	Aluminum (Al)-Dissolved (mg/L)	0.0093	0.0094	0.0097	0.0111	0.0117
	Antimony (Sb)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Arsenic (As)-Dissolved (mg/L)	0.00037	0.00036	0.00042	0.00040	0.00045
	Barium (Ba)-Dissolved (mg/L)	0.0397	0.0408	0.0411	0.0422	0.0410
	Beryllium (Be)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Bismuth (Bi)-Dissolved (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
	Boron (B)-Dissolved (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010
	Cadmium (Cd)-Dissolved (mg/L)	0.000047	0.000048	0.000062	0.000051	0.000064
	Calcium (Ca)-Dissolved (mg/L)	47.3	46.2	50.3	24.6	23.1
	Chromium (Cr)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Cobalt (Co)-Dissolved (mg/L)	0.00128	0.00128	0.00187	0.00026	0.00033
	Copper (Cu)-Dissolved (mg/L)	0.00078	0.00069	0.00065	0.00069	0.00066
	Iron (Fe)-Dissolved (mg/L)	0.180	0.180	0.247	0.226	0.122
	Lead (Pb)-Dissolved (mg/L)	0.000138	0.000141	0.000172	0.000181	0.000180
	Lithium (Li)-Dissolved (mg/L)	0.00297	0.00281	0.00305	0.00211	0.00204
	Magnesium (Mg)-Dissolved (mg/L)	10.2	10.3	11.2	6.11	5.35
	Manganese (Mn)-Dissolved (mg/L)	0.971	0.975	1.27	0.0329	0.0355
	Molybdenum (Mo)-Dissolved (mg/L)	0.000408	0.000388	0.000431	0.000392	0.000334
	Nickel (Ni)-Dissolved (mg/L)	0.00188	0.00188	0.00243	0.00089	0.00091
	Phosphorus (P)-Dissolved (mg/L)	<0.30	<0.30	<0.30	<0.30	<0.30
	Potassium (K)-Dissolved (mg/L)	0.940	0.960	0.970	0.590	0.608

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1483514-6 Grab 07-JUL-14 16:35 X2-1	L1483514-7 Grab 07-JUL-14 16:40 X2-2	L1483514-8 Grab 07-JUL-14 16:45 X2-3	L1483514-9 Grab 07-JUL-14 17:00 X2-4	L1483514-10 Grab 07-JUL-14 17:20 NF2-1
WATER						
Total Metals	Nickel (Ni)-Total (mg/L)	0.00157	0.00163	0.00156	0.00158	0.00401
	Phosphorus (P)-Total (mg/L)	<0.30	<0.30	<0.30	<0.30	<0.30
	Potassium (K)-Total (mg/L)	0.543	0.531	0.517	0.537	0.537
	Selenium (Se)-Total (mg/L)	0.00020	0.00021	0.00022	0.00021	0.00022
	Silicon (Si)-Total (mg/L)	4.74	4.84	4.79	4.91	4.84
	Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Sodium (Na)-Total (mg/L)	1.69	1.74	1.69	1.68	1.71
	Strontium (Sr)-Total (mg/L)	0.0882	0.0915	0.0928	0.0902	0.0938
	Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Titanium (Ti)-Total (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010
	Uranium (U)-Total (mg/L)	0.000852	0.000821	0.000826	0.000843	0.000870
	Vanadium (V)-Total (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	Zinc (Zn)-Total (mg/L)	0.171	0.173	0.173	0.172	0.577
	Zirconium (Zr)-Total (mg/L)	<0.00080	<0.00080	<0.00080	<0.00080	<0.00080
Dissolved Metals	Dissolved Metals Filtration Location	FIELD	FIELD	FIELD	FIELD	FIELD
	Aluminum (Al)-Dissolved (mg/L)	0.0125	0.0129	0.0125	0.0131	0.0192
	Antimony (Sb)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Arsenic (As)-Dissolved (mg/L)	0.00053	0.00053	0.00048	0.00052	0.00053
	Barium (Ba)-Dissolved (mg/L)	0.0384	0.0397	0.0386	0.0409	0.0402
	Beryllium (Be)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Bismuth (Bi)-Dissolved (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
	Boron (B)-Dissolved (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010
	Cadmium (Cd)-Dissolved (mg/L)	0.000118	0.000113	0.000112	0.000111	0.000391
	Calcium (Ca)-Dissolved (mg/L)	21.1	21.0	20.9	20.6	20.7
	Chromium (Cr)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Cobalt (Co)-Dissolved (mg/L)	0.00065	0.00065	0.00063	0.00065	0.00230
	Copper (Cu)-Dissolved (mg/L)	0.00084	0.00067	0.00066	0.00065	0.00070
	Iron (Fe)-Dissolved (mg/L)	0.122	0.111	0.106	0.112	0.156
	Lead (Pb)-Dissolved (mg/L)	0.000299	0.000284	0.000279	0.000291	0.000483
	Lithium (Li)-Dissolved (mg/L)	0.00240	0.00247	0.00252	0.00245	0.00248
	Magnesium (Mg)-Dissolved (mg/L)	4.98	4.98	4.63	5.17	5.76
	Manganese (Mn)-Dissolved (mg/L)	0.0468	0.0469	0.0462	0.0470	0.125
	Molybdenum (Mo)-Dissolved (mg/L)	0.000407	0.000416	0.000405	0.000407	0.000419
	Nickel (Ni)-Dissolved (mg/L)	0.00135	0.00139	0.00135	0.00132	0.00364
	Phosphorus (P)-Dissolved (mg/L)	<0.30	<0.30	<0.30	<0.30	<0.30
	Potassium (K)-Dissolved (mg/L)	0.503	0.498	0.493	0.521	0.520

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1483514-11 Grab 07-JUL-14 17:35 NF2-2	L1483514-12 Grab 07-JUL-14 17:45 NF2-3	L1483514-13 Grab 07-JUL-14 17:55 NF2-4	L1483514-14 Grab 07-JUL-14 18:30 NF2-A	L1483514-15 Grab 07-JUL-14 18:45 NF2-B
WATER						
Total Metals	Nickel (Ni)-Total (mg/L)	0.00070	0.00058	0.00063	0.00378	0.00064
	Phosphorus (P)-Total (mg/L)	<0.30	<0.30	<0.30	<0.30	<0.30
	Potassium (K)-Total (mg/L)	0.520	0.527	0.517	0.532	0.525
	Selenium (Se)-Total (mg/L)	0.00022	0.00022	0.00023	0.00023	0.00023
	Silicon (Si)-Total (mg/L)	4.95	4.95	4.78	4.87	4.82
	Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010	0.000012	<0.000010
	Sodium (Na)-Total (mg/L)	1.68	1.64	1.67	1.67	1.71
	Strontium (Sr)-Total (mg/L)	0.0904	0.0901	0.0898	0.0881	0.0902
	Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Titanium (Ti)-Total (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010
	Uranium (U)-Total (mg/L)	0.000837	0.000831	0.000820	0.000832	0.000834
	Vanadium (V)-Total (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	Zinc (Zn)-Total (mg/L)	0.0096	0.0071	0.0070	0.516	0.0078
	Zirconium (Zr)-Total (mg/L)	<0.00080	<0.00080	<0.00080	<0.00080	<0.00080
Dissolved Metals	Dissolved Metals Filtration Location	FIELD	FIELD	FIELD	FIELD	FIELD
	Aluminum (Al)-Dissolved (mg/L)	0.0119	0.0127	0.0121	0.0155	0.0119
	Antimony (Sb)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Arsenic (As)-Dissolved (mg/L)	0.00049	0.00053	0.00053	0.00049	0.00054
	Barium (Ba)-Dissolved (mg/L)	0.0387	0.0410	0.0409	0.0401	0.0408
	Beryllium (Be)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Bismuth (Bi)-Dissolved (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
	Boron (B)-Dissolved (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010
	Cadmium (Cd)-Dissolved (mg/L)	0.000012	0.000014	0.000011	0.000376	<0.000010
	Calcium (Ca)-Dissolved (mg/L)	20.4	20.9	19.6	19.8	19.2
	Chromium (Cr)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Cobalt (Co)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	0.00214	<0.00010
	Copper (Cu)-Dissolved (mg/L)	0.00077	0.00065	0.00065	0.00070	0.00066
	Iron (Fe)-Dissolved (mg/L)	0.084	0.088	0.088	0.151	0.088
	Lead (Pb)-Dissolved (mg/L)	0.000280	0.000294	0.000275	0.000388	0.000271
	Lithium (Li)-Dissolved (mg/L)	0.00240	0.00229	0.00224	0.00250	0.00231
	Magnesium (Mg)-Dissolved (mg/L)	4.22	4.37	4.47	5.70	4.55
	Manganese (Mn)-Dissolved (mg/L)	0.00731	0.00744	0.00708	0.118	0.00762
	Molybdenum (Mo)-Dissolved (mg/L)	0.000387	0.000417	0.000399	0.000393	0.000393
	Nickel (Ni)-Dissolved (mg/L)	<0.00050	<0.00050	<0.00050	0.00354	<0.00050
	Phosphorus (P)-Dissolved (mg/L)	<0.30	<0.30	<0.30	<0.30	<0.30
	Potassium (K)-Dissolved (mg/L)	0.491	0.498	0.500	0.504	0.512

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1483514-16 Grab 07-JUL-14 22:40 FIELD BLANK	L1483514-17 Water 10-JUN-14 12:00 TRIP BLANK	L1483514-18 Grab 07-JUL-14 19:30 R10	L1483514-19 Grab 07-JUL-14 19:20 NF1	L1483514-20 Grab 07-JUL-14 19:35 R10-R
WATER						
Total Metals	Nickel (Ni)-Total (mg/L)	<0.00050	<0.00050	<0.00050	0.00061	<0.00050
	Phosphorus (P)-Total (mg/L)	<0.30	<0.30	<0.30	<0.30	<0.30
	Potassium (K)-Total (mg/L)	<0.050	<0.050	0.500	0.508	0.484
	Selenium (Se)-Total (mg/L)	<0.00010	<0.00010	0.00023	0.00023	0.00024
	Silicon (Si)-Total (mg/L)	<0.050	<0.050	4.85	4.66	4.75
	Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Sodium (Na)-Total (mg/L)	<0.050	<0.050	1.59	1.63	1.73
	Strontium (Sr)-Total (mg/L)	<0.00020	<0.00020	0.0855	0.0905	0.0845
	Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Titanium (Ti)-Total (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010
	Uranium (U)-Total (mg/L)	<0.000010	<0.000010	0.000838	0.000864	0.000835
	Vanadium (V)-Total (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	Zinc (Zn)-Total (mg/L)	<0.0030	<0.0030	0.0047	0.0107	0.0057
	Zirconium (Zr)-Total (mg/L)	<0.00080	<0.00080	<0.00080	<0.00080	<0.00080
Dissolved Metals	Dissolved Metals Filtration Location	FIELD		FIELD	FIELD	FIELD
	Aluminum (Al)-Dissolved (mg/L)	<0.0010		0.0148	0.0145	0.0174
	Antimony (Sb)-Dissolved (mg/L)	<0.00010		<0.00010	<0.00010	<0.00010
	Arsenic (As)-Dissolved (mg/L)	<0.00010		0.00055	0.00059	0.00057
	Barium (Ba)-Dissolved (mg/L)	<0.000050		0.0399	0.0415	0.0402
	Beryllium (Be)-Dissolved (mg/L)	<0.00010		<0.00010	<0.00010	<0.00010
	Bismuth (Bi)-Dissolved (mg/L)	<0.00050		<0.00050	<0.00050	<0.00050
	Boron (B)-Dissolved (mg/L)	<0.010		<0.010	<0.010	<0.010
	Cadmium (Cd)-Dissolved (mg/L)	<0.000010		<0.000010	0.000015	<0.000010
	Calcium (Ca)-Dissolved (mg/L)	<0.020		19.2	22.1	19.5
	Chromium (Cr)-Dissolved (mg/L)	<0.00010		<0.00010	<0.00010	0.00010
	Cobalt (Co)-Dissolved (mg/L)	<0.00010		<0.00010	0.00014	<0.00010
	Copper (Cu)-Dissolved (mg/L)	<0.00020		0.00063	0.00069	0.00064
	Iron (Fe)-Dissolved (mg/L)	<0.010		0.102	0.142	0.106
	Lead (Pb)-Dissolved (mg/L)	<0.000050		0.000210	0.000315	0.000237
	Lithium (Li)-Dissolved (mg/L)	<0.00050		0.00225	0.00225	0.00227
	Magnesium (Mg)-Dissolved (mg/L)	<0.0050		4.75	4.61	4.56
	Manganese (Mn)-Dissolved (mg/L)	<0.000050		0.0149	0.0612	0.0153
	Molybdenum (Mo)-Dissolved (mg/L)	<0.000050		0.000387	0.000395	0.000389
	Nickel (Ni)-Dissolved (mg/L)	<0.00050		<0.00050	0.00054	<0.00050
	Phosphorus (P)-Dissolved (mg/L)	<0.30		<0.30	<0.30	<0.30
	Potassium (K)-Dissolved (mg/L)	<0.050		0.484	0.508	0.486

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1483514-1	L1483514-2	L1483514-3	L1483514-4	L1483514-5
	Description	Grab	Grab	Grab	Grab	Grab
	Sampled Date	07-JUL-14	07-JUL-14	07-JUL-14	07-JUL-14	07-JUL-14
	Sampled Time	14:40	14:45	15:30	15:40	16:00
	Client ID	R3	R3-R	X14	X10	X3A
Grouping	**Analyte**					
WATER						
Dissolved Metals	Selenium (Se)-Dissolved (mg/L)	0.00022	0.00021	0.00023	0.00020	0.00017
	Silicon (Si)-Dissolved (mg/L)	4.67	4.59	4.46	4.42	4.56
	Silver (Ag)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Sodium (Na)-Dissolved (mg/L)	2.86	2.82	3.07	1.62	1.68
	Strontium (Sr)-Dissolved (mg/L)	0.168	0.164	0.181	0.111	0.110
	Thallium (Tl)-Dissolved (mg/L)	<0.000010	<0.000010	0.000013	<0.000010	<0.000010
	Tin (Sn)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Titanium (Ti)-Dissolved (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010
	Uranium (U)-Dissolved (mg/L)	0.00114	0.00112	0.00125	0.00101	0.000970
	Vanadium (V)-Dissolved (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	Zinc (Zn)-Dissolved (mg/L)	0.0566	0.0561	0.0739	0.0793	0.0874
	Zirconium (Zr)-Dissolved (mg/L)	<0.00080	<0.00080	<0.00080	<0.00080	<0.00080

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1483514-6	L1483514-7	L1483514-8	L1483514-9	L1483514-10
	Description	Grab	Grab	Grab	Grab	Grab
	Sampled Date	07-JUL-14	07-JUL-14	07-JUL-14	07-JUL-14	07-JUL-14
	Sampled Time	16:35	16:40	16:45	17:00	17:20
	Client ID	X2-1	X2-2	X2-3	X2-4	NF2-1
Grouping	**Analyte**					
WATER						
Dissolved Metals	Selenium (Se)-Dissolved (mg/L)	0.00022	0.00021	0.00022	0.00021	0.00021
	Silicon (Si)-Dissolved (mg/L)	4.83	4.70	4.37	4.65	4.88
	Silver (Ag)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Sodium (Na)-Dissolved (mg/L)	1.63	1.63	1.64	1.68	1.79
	Strontium (Sr)-Dissolved (mg/L)	0.0893	0.0912	0.0881	0.0925	0.0883
	Thallium (Tl)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Tin (Sn)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Titanium (Ti)-Dissolved (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010
	Uranium (U)-Dissolved (mg/L)	0.000810	0.000780	0.000760	0.000783	0.000810
	Vanadium (V)-Dissolved (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	Zinc (Zn)-Dissolved (mg/L)	0.172	0.169	0.170	0.170	0.588
	Zirconium (Zr)-Dissolved (mg/L)	<0.00080	<0.00080	<0.00080	<0.00080	<0.00080

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1483514-11 Grab 07-JUL-14 17:35 NF2-2	L1483514-12 Grab 07-JUL-14 17:45 NF2-3	L1483514-13 Grab 07-JUL-14 17:55 NF2-4	L1483514-14 Grab 07-JUL-14 18:30 NF2-A	L1483514-15 Grab 07-JUL-14 18:45 NF2-B
Sample ID / Description / Sampled Date / Sampled Time / Client ID						
WATER						
Dissolved Metals	Selenium (Se)-Dissolved (mg/L)	0.00022	0.00023	0.00021	0.00021	0.00023
	Silicon (Si)-Dissolved (mg/L)	4.35	4.67	4.68	4.67	4.89
	Silver (Ag)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Sodium (Na)-Dissolved (mg/L)	1.60	1.59	1.63	1.75	1.64
	Strontium (Sr)-Dissolved (mg/L)	0.0846	0.0898	0.0860	0.0868	0.0887
	Thallium (Tl)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Tin (Sn)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Titanium (Ti)-Dissolved (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010
	Uranium (U)-Dissolved (mg/L)	0.000764	0.000813	0.000807	0.000830	0.000797
	Vanadium (V)-Dissolved (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	Zinc (Zn)-Dissolved (mg/L)	0.0059	0.0046	0.0048	0.567	0.0054
	Zirconium (Zr)-Dissolved (mg/L)	<0.00080	<0.00080	<0.00080	<0.00080	<0.00080

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1483514-16	L1483514-17	L1483514-18	L1483514-19	L1483514-20
	Description	Grab	Water	Grab	Grab	Grab
	Sampled Date	07-JUL-14	10-JUN-14	07-JUL-14	07-JUL-14	07-JUL-14
	Sampled Time	22:40	12:00	19:30	19:20	19:35
	Client ID	FIELD BLANK	TRIP BLANK	R10	NF1	R10-R
Grouping	**Analyte**					
WATER						
Dissolved Metals	Selenium (Se)-Dissolved (mg/L)	<0.00010		0.00021	0.00021	0.00023
	Silicon (Si)-Dissolved (mg/L)	<0.050		4.63	4.67	4.82
	Silver (Ag)-Dissolved (mg/L)	<0.000010		<0.000010	<0.000010	<0.000010
	Sodium (Na)-Dissolved (mg/L)	<0.050		1.66	1.63	1.66
	Strontium (Sr)-Dissolved (mg/L)	<0.00020		0.0866	0.0896	0.0825
	Thallium (Tl)-Dissolved (mg/L)	<0.000010		<0.000010	<0.000010	<0.000010
	Tin (Sn)-Dissolved (mg/L)	<0.00010		<0.00010	<0.00010	<0.00010
	Titanium (Ti)-Dissolved (mg/L)	<0.010		<0.010	<0.010	<0.010
	Uranium (U)-Dissolved (mg/L)	<0.000010		0.000799	0.000809	0.000841
	Vanadium (V)-Dissolved (mg/L)	<0.0010		<0.0010	<0.0010	<0.0010
	Zinc (Zn)-Dissolved (mg/L)	<0.0010		0.0035	0.0090	0.0041
	Zirconium (Zr)-Dissolved (mg/L)	<0.00080		<0.00080	<0.00080	<0.00080

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Duplicate	Beryllium (Be)-Total	DLA	L1483514-1, -2, -3, -4, -5, -6
Duplicate	Bismuth (Bi)-Total	DLA	L1483514-1, -2, -3, -4, -5, -6
Duplicate	Phosphorus (P)-Total	DLA	L1483514-1, -2, -3, -4, -5, -6
Duplicate	Tin (Sn)-Total	DLA	L1483514-1, -2, -3, -4, -5, -6
Duplicate	Titanium (Ti)-Total	DLA	L1483514-1, -2, -3, -4, -5, -6
Duplicate	Vanadium (V)-Total	DLA	L1483514-1, -2, -3, -4, -5, -6
Matrix Spike	Sulfate (SO4)	MS-B	L1483514-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Total	MS-B	L1483514-10, -11, -12, -13, -14, -15, -18, -19, -20, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Total	MS-B	L1483514-10, -11, -12, -13, -14, -15, -18, -19, -20, -7, -8, -9
Matrix Spike	Silicon (Si)-Total	MS-B	L1483514-10, -11, -12, -13, -14, -15, -18, -19, -20, -7, -8, -9
Matrix Spike	Sodium (Na)-Total	MS-B	L1483514-10, -11, -12, -13, -14, -15, -18, -19, -20, -7, -8, -9
Matrix Spike	Strontium (Sr)-Total	MS-B	L1483514-10, -11, -12, -13, -14, -15, -18, -19, -20, -7, -8, -9

Qualifiers for Individual Parameters Listed:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALK-COL-VA	Water	Alkalinity by Colourimetric (Automated)	EPA 310.2

This analysis is carried out using procedures adapted from EPA Method 310.2 "Alkalinity". Total Alkalinity is determined using the methyl orange colourimetric method.

ANIONS-CL-IC-WR	Water	Chloride by Ion Chromatography	EPA 300.1

This analysis is carried out using procedures adapted from EPA Method 300.1, "Determination of Inorganic Anions by Ion Chromatography", Revision 1.0, April 1999 and from "Determination of Inorganic Anions in Environmental Waters Using a Hydroxide-Selective Column", Application Note 154 v.19, Dionex 2003.

ANIONS-F-IC-WR	Water	Fluoride by Ion Chromatography	EPA 300.1

This analysis is carried out using procedures adapted from EPA Method 300.1, "Determination of Inorganic Anions by Ion Chromatography", Revision 1.0, April 1999 and from "Determination of Inorganic Anions in Environmental Waters Using a Hydroxide-Selective Column", Application Note 154 v.19, Dionex 2003.

ANIONS-NO2-IC-WR	Water	Nitrite Nitrogen by Ion Chromatography	EPA 300.1

This analysis is carried out using procedures adapted from EPA Method 300.1, "Determination of Inorganic Anions by Ion Chromatography", Revision 1.0, April 1999 and from "Determination of Inorganic Anions in Environmental Waters Using a Hydroxide-Selective Column", Application Note 154 v.19, Dionex 2003. Nitrate is detected by UV absorbance.

ANIONS-NO3-IC-WR	Water	Nitrate Nitrogen by Ion Chromatography	EPA 300.1

This analysis is carried out using procedures adapted from EPA Method 300.1, "Determination of Inorganic Anions by Ion Chromatography", Revision 1.0, April 1999 and from "Determination of Inorganic Anions in Environmental Waters Using a Hydroxide-Selective Column", Application Note 154 v.19, Dionex 2003. Nitrate is detected by UV absorbance.

ANIONS-SO4-IC-WR	Water	Sulphate by Ion Chromatography	EPA 300.1

This analysis is carried out using procedures adapted from EPA Method 300.1, "Determination of Inorganic Anions by Ion Chromatography", Revision 1.0, April 1999 and from "Determination of Inorganic Anions in Environmental Waters Using a Hydroxide-Selective Column", Application Note 154 v.19, Dionex 2003.

CARBONS-DOC-VA	Water	Dissolved organic carbon by combustion	APHA 5310 TOTAL ORGANIC CARBON (TOC)

This analysis is carried out using procedures adapted from APHA Method 5310 "Total Organic Carbon (TOC)". Dissolved carbon (DOC) fractions are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis.

CARBONS-TOC-VA	Water	Total organic carbon by combustion	APHA 5310 TOTAL ORGANIC CARBON (TOC)

This analysis is carried out using procedures adapted from APHA Method 5310 "Total Organic Carbon (TOC)".

EC-MAN-WR	Water	Conductivity by Meter	APHA 2510 (B)

This analysis is carried out using procedures adapted from APHA Method 2510 "Conductivity". Conductivity is determined using an electrode.

Reference Information

HARDNESS-CALC-VA	Water	Hardness	APHA 2340B

Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.

IONBALANCE-VA	Water	Ion Balance Calculation	APHA 1030E

Cation Sum, Anion Sum, and Ion Balance (as % difference) are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Because all aqueous solutions are electrically neutral, the calculated ion balance (% difference of cations minus anions) should be near-zero.

Cation and Anion Sums are the total meq/L concentration of major cations and anions. Dissolved species are used where available. Minor ions are included where data is present. Ion Balance is calculated as:

Ion Balance (%) = [Cation Sum-Anion Sum] / [Cation Sum+Anion Sum]

MET-D-CCMS-VA	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030 B&E / EPA SW-846 6020A

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using hotblock, or filtration (APHA 3030B&E). Instrumental analysis is by collision cell inductively coupled plasma - mass spectrometry (modified from EPA Method 6020A).

MET-T-CCMS-VA	Water	Total Metals in Water by CRC ICPMS	APHA 3030 B&E / EPA SW-846 6020A

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using hotblock, or filtration (APHA 3030B&E). Instrumental analysis is by collision cell inductively coupled plasma - mass spectrometry (modified from EPA Method 6020A).

NH3-F-VA	Water	Ammonia in Water by Fluorescence	J. ENVIRON. MONIT., 2005, 7, 37-42, RSC

This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.

P-T-PRES-COL-VA	Water	Total P in Water by Colour	APHA 4500-P Phosphorus

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.

PH-MAN-WR	Water	pH by Meter	APHA 4500-H (B)

"This analysis is carried out using procedures adapted from APHA Method 4500-H ""pH Value"". The pH is determined in the laboratory using a pH electrode."

TDS-CALC-VA	Water	TDS (Calculated)	APHA 1030E (20TH EDITION)

This analysis is carried out using procedures adapted from APHA 1030E "Checking Correctness of Analyses".

TSS-LOW-WR	Water	Total Suspended Solids by Grav. (1 mg/L)	APHA 2540 D

This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Suspended Solids are determined by filtering a sample through a glass fibre filter and drying the filter at 104 degrees celsius.

ZR-D-MS-VA	Water	Dissolved Zr in Water by ICPMS	EPA SW-846 3005A/6020A

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - mass spectrometry (EPA Method 6020A).

ZR-T-MS-VA	Water	Total Zr in Water by ICPMS	EPA SW-846 3005A/6020A

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - mass spectrometry (EPA Method 6020A).

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WR	ALS ENVIRONMENTAL - WHITEHORSE, YUKON, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

Reference Information

1 2 3

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.
mg/kg - milligrams per kilogram based on dry weight of sample.
mg/kg wwt - milligrams per kilogram based on wet weight of sample.
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.
mg/L - milligrams per litre.
< - Less than.
D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Chain of Custody (COC) / Analytical Request Form

ALS Environmental — Canada Toll Free: 1 800 668 9878 — www.alsglobal.com

L1483514-COFC

COC Number: 14 -

Page 1 of 3

Report To		Report Format / Distribution		Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	EDI	Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	R ☑ Regular (Standard TAT if received by 3 pm - business days)
Contact:	Meighan Kearns	Quality Control (QC) Report with Report	☐ Yes ☐ No	P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
Address:	2195 - 2nd Avenue Whitehorse, YT Y1A 3T8	☐ Criteria on Report - provide details below if box checked		E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
		Select Distribution:	☐ EMAIL ☐ MAIL ☐ FAX	E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
Phone:	867-393-4882	Email 1 or Fax	mkearns@edynamics.com	Specify Date Required for E2,E or P:
		Email 2	adrienne.turcotte@gov.yk.ca	

Invoice To		Invoice Distribution		Analysis Request
	Same as Report To ☐ Yes ☑ No	Select Invoice Distribution:	☐ EMAIL ☐ MAIL ☐ FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
	Copy of Invoice with Report ☑ Yes ☐ No	Email 1 or Fax	sjenner@edynamics.com	
Company:	EDI	Email 2		
Contact:	S Jenner			

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:	Q38556	Approver ID:	Cost Center:
Job #:	~~13-Y-0452-~~ 14-Y-0270	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	
ALS Lab Work Order # (lab use only)		ALS Contact:	Sampler: BSm, LG

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	ALK-COL-VA,P-T-COL-VA,IONBALANCE-VA	ANIONS-ALL-IC-WR, TDS-CALC-VA	EC-MAN-WR,PH-MAN-WR	TSS-LOW-WR	CARBONS-TOC-VA,NH3-F-VA	CARBONS-DOC-VA	MET-T-CCMS-VA,ZR-T-MS-VA	MET-D-CCMS-VA,ZR-D-MS-VA	HARDNESS-CALC-VA	Number of Containers
	R3	07 JULY 2014	14:40	GRAB	R	R	R	R	R	R	R	R	R	5
	R3-F	07 JULY 2014	14 45	GRAB	R	—	—	—	—	—	—	—	F	
	X14	07 JULY 2014	15 30	GRAB	R	—	—	—	—	—	—	—	F	
	X10	07 JULY 2014	15:40	GRAB	R	—	—	—	—	—	—	—	F	
	X3A	07 JULY 2014	16:00	GRAB	R	—	—	—	—	—	—	—	F	
	X2-1	07 JULY 2014	16 35	GRAB	R	—	—	—	—	—	—	—	F	
	X2-2	07 JULY 2014	16:40	GRAB	R	—	—	—	—	—	—	—	F	
	X2-3	07 JULY 2014	16:45	GRAB	R	—	—	—	—	—	—	—	F	

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? ☐ Yes ☐ No	Use CH2M_EQUIS for EDD.
Are samples for human drinking water use? ☐ Yes ☐ No	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice packs Yes ☐ No ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C			
8.5	9.8	9.6	8.0	7.0	5.0	6.0 °C

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: B. Smith	Date: 08 JULY 14	Time:	Received by:	Date: 9-Jul-14	Time: 9:30	Received by: Bobby	Date: July 10	Time: 9:50

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION — WHITE - LABORATORY COPY — YELLOW - CLIENT COPY

ALS FM 032fm v08 Front/04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

Chain of Custody (COC) / Analytical Request Form

ALS Environmental

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

L1483514-COFC

COC Number: 14 -

Page 2 of 3

Report To		Report Format /	
Company:	EDI	Select Report Format:	PDF
Contact:	Meighan Kearns	Quality Control (QC) Report with Report	Yes No
Address:	2195 - 2nd Avenue Whitehorse, YT Y1A 3T8	Criteria on Report - provide details below if box checked	
Phone:	867-393-4882	Select Distribution:	EMAIL MAIL FAX
		Email 1 or Fax	mkearns@edynamics.com
		Email 2	adrienne.turcotte@gov.yk.ca

(Rush Turnaround Time (TAT) is not available for all tests)

(received by 3 pm - business days)

- P: Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
- E: Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
- E2: Same day or weekend emergency - contact ALS to confirm TAT and surcharge

Specify Date Required for E2,E or P:

Invoice To	Same as Report To	Yes	No
	Copy of Invoice with Report	Yes	No
Company:	EDI		
Contact:	S Jenner		

Invoice Distribution	
Select Invoice Distribution:	EMAIL MAIL FAX
Email 1 or Fax	sjenner@edynamics.com
Email 2	

Project Information	
ALS Quote #:	Q38556
Job #:	~~13-Y-0452~~ 14-Y-02270
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)	
Approver ID:	Cost Center:
GL Account:	Routing Code:
Activity Code:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact:

Sampler: BSm, LG

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	ALK-COL-VA,P-T-COL-VA,IONBALANCE-V	ANIONS-ALL-IC-WR, TDS-CALC-VA	EC-MAN-WR,PH-MAN-WR	TSS-LOW-WR	CARBONS-TOC-VA,NH3-F-VA	CARBONS-DOC-VA	MET-T-CCMS-VA,ZR-T-MS-VA	MET-D-CCMS-VA,ZR-D-MS-VA	HARDNESS-CALC-VA	Number of Containers
	XZ-4	07 JULY 2014	17:00	GRAB	R	R	R	R	R	R	R	R	R	5
	NFZ-1	07 JULY 2014	17:20	GRAB	R	—	—	—	—	—	—	—	R	
	NFZ-2	07 JULY 2014	17:35	GRAB	R	—	—	—	—	—	—	—	R	
	NFZ-3	07 JULY 2014	17:45	GRAB	R	—	—	—	—	—	—	—	R	
	NFZ-4	07 JULY 2014	17:55	GRAB	R	—	—	—	—	—	—	—	R	
	NFZ-A	07 JULY 2014	18:30	GRAB	R	—	—	—	—	—	—	—	R	
	NFZ-B	07 JULY 2014	18:45	GRAB	R	—	—	—	—	—	—	—	R	

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client use)
Are samples taken from a Regulated DW System? Yes No	Use CH2M_EQUIS for EDD.
Are samples for human drinking water use? Yes No	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen		SIF Observations	Yes	No	
Ice packs	Yes	No	Custody seal intact	Yes	No
Cooling Initiated					

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
			8.0	7.0, 5.0,	6.0 °C

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: B. Smith	Date: 08 JULY 14	Time:	Received by:	Date:	Time:	Received by:	Date: July 10	Time: 9:50

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY