ENVIRONMENTAL DYNAMICS INC.

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January 9, 2014

EDI Job Number: 13-Y-0452

Assessment and Abandoned Mines
Yukon Government
Box 2703
Whitehorse, YT

Attention: Adrienne Turcotte, Project Officer

Re: Faro Rose Creek Surface and Groundwater Sampling Field Program – Trip 6

In response to an urgent request by Assessment and Abandoned Mines (AAM), EDI Environmental Dynamics Inc. (EDI) has been conducting on-going water quality sampling and fish telemetry surveys at the Faro Mine Site since November 2013. Table 1, attached, summarizes the field trips completed. The intent of this memo is to summarize field data obtained during the January 2 field program, referred to as Trip 6.

The objective of Trip 6 was to complete the following task:

- Surface water sampling in Rose Creek at 11 sites, including QA/QC samples.

Weather conditions on January 2, 2014 were relatively mild, with air temperatures around -5˚C and the crew was able to collect in-situ data not collected in recent trips due to extreme cold weather. However, overflow conditions were problematic at NF1 Pond and the crew sampled the overflow water from the pond margin.

Field data that was collected at each surface water sampling site is summarized in Table 2, attached. Figure 1 provides the locations of all water quality sampling. Representative photos of each site and the ALS laboratory analytical reports for all water chemistry samples submitted during this field trip are also attached.

If you have any questions or concerns, please do not hesitate to contact Pat Tobler or myself 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 Trips 1 to 6, Faro Mine Site.
- Table 2. Surface water sampling field data, Trip 6, January 2, 2014.
- Figure 1. Location of surface water sampling, Faro Mine Site, January 2, 2014.
- Photos 1 – 11. Representative site photos.
- ALS Laboratory Analytical Reports

Table 1. Summary of Trips 1 to 5, Faro Mine Site.

Trip No.	Dates	General Tasks
1	Nov 12 – 14, 2013	• Fish telemetry • Piezometer water depth measurements • Ground water sampling • Surface water sampling
2	Nov 27 – 30, 2013	• Fish telemetry • Surface water sampling
3	Dec 10, 2013	• Fish telemetry
4	Dec 19 – 20, 2013	• Surface water sampling
5	Dec 27, 2013	• Surface water sampling
6	Jan 2, 2014	• Surface water sampling

Table 2. Surface water sampling field data, January 2, 2014.

Site Name	UTM Location (NAD83/ Zone 8)		Sample		QA/ QC Rep. ID	In-situ Parameters			
	Easting	Northing	Date	Time		Temp (°C)	SPC (µS/cm)	pH	Turbidity (NTU)
X14	579343	6915076	02-Jan-13	13:00	X14-r	0.07	624	5.75	11.5
X10	579444	6914882	02-Jan-13	13:20	-	0.05	309	6.62	2.05
X3A	583154	6912542	02-Jan-13	13:30	-	-0.01	298	6.6	1.28
X2	584069	6912770	02-Jan-13	13:45	-	0.02	297	6.52	1.52
NF2-A	584708	6913039	02-Jan-13	14:00	-	-0.06	339	6.64	2.77
NF2-B	584727	6913024	02-Jan-13	14:05	-	-0.04	266	6.85	1.92
NF2	584689	6913011	02-Jan-13	14:15	-	-0.05	298	6.6	2.17
NF1	584867	6913272	02-Jan-13	14:45	-	-0.3	263	6.29	2.94
R10	585104	6913480	02-Jan-13	15:00	-	-0.05	220	6.78	- *
R9	585228	6913603	02-Jan-13	15:10	-	-0.05	222	6.98	0.97
R8	586300	6914404	02-Jan-13	15:20	-	-0.03	216	6.93	1.00

Where, UTM = Universal Transverse Mercator;
QA/QC Rep = Quality Assurance/ Quality Control Replicate;
Temp = water temperature;
SPC = specific conductance; and,
* = no data due to equipment malfunction

Location of surface water sampling, Faro Mine Site, January 2, 2014

Legend

- Surface Water Sampling Site
- Road (Mine Access/Haul)
- Topographic Contour (30 m Interval)

N
W E
S

0 200 400 600 800 1,000
metres

Map Scale = 1:20,000 (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.

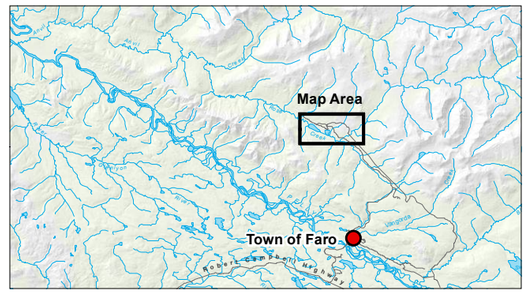
National Road Network courtesy of Her Majesty the Queen in Right of Canada, Department of Natural Resources. All Rights Reserved.

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:		
LG	MK	FIGURE 1	Date: 09/01/2014



EDI

Map Prepared by
EDI Environmental Dynamics Inc.

Path: J:\Yukon\Projects\2013\13_Y_0452_AAM_NF_Sampling\Mapping\January2014\Fig1_WaterSamplingSites_Jan2.mxd

Site Photos

Photo 1. Overview at surface water sampling site X14, January 2, 2014.

Photo 2. Downstream view of surface water sampling site at X10, January 2, 2014.

Photo 3. Overview of surface water sampling site at X3A, January 2, 2014.

Photo 4. Downstream view of surface water sampling site at X2, January 2, 2014.

Photo 5. Downstream view of surface water sampling site at NF2-A, January 2, 2014.

Photo 6. Upstream view of surface water sampling site at NF2-B, January 2, 2014.

Photo 7. Downstream view of surface water sampling site at NF2, January 2, 2014.

Photo 8. Upstream view of surface water sampling site at NF1, January 2, 2014.

Photo 9. Upstream view of surface water sampling site R10, January 2, 2014.

Photo 10. Downstream view of surface water sampling site R9, January 2, 2014.

Photo 11. Overview of surface water sampling site R8, January 2, 2014.

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

Date Received: 03-JAN-14
Report Date: 08-JAN-14 13:42 (MT)
Version: FINAL

Client Phone: 867-393-4882

Certificate of Analysis

Lab Work Order #: L1408313

Project P.O. #: NOT SUBMITTED
Job Reference: 13-Y-0452
C of C Numbers: 1, 2
Legal Site Desc:

Can Dang
Senior Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1408313-1	L1408313-2	L1408313-3	L1408313-4	L1408313-5
	Description	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
	Sampled Date	02-JAN-14	02-JAN-14	02-JAN-14	02-JAN-14	02-JAN-14
	Sampled Time	13:30	13:20	13:00	13:45	13:00
	Client ID	X3A	X10	X14-R	X2	X14
Grouping	**Analyte**					
WATER						
Physical Tests	Conductivity (uS/cm)	282	290	592	284	593
	Hardness (as CaCO3) (mg/L)	139	148	304	140	302
	pH (pH)	7.98	8.06	7.94	7.85	7.94
	Total Suspended Solids (mg/L)	1.0	1.0	5.6	1.2	3.4
	Total Dissolved Solids (mg/L)	170	169	386	162	389
Anions and Nutrients	Alkalinity, Total (as CaCO3) (mg/L)	137	128	155	120	161
	Ammonia, Total (as N) (mg/L)	0.0219	0.0204	0.0837	0.0175	0.0861
	Chloride (Cl) (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50
	Fluoride (F) (mg/L)	0.167	0.163	0.158	0.175	0.157
	Nitrate (as N) (mg/L)	0.227	0.227	0.200	0.245	0.199
	Nitrite (as N) (mg/L)	0.0014	<0.0010	0.0013	0.0014	<0.0010
	Phosphorus (P)-Total (mg/L)	0.0041	0.0031	<0.0020	0.0043	<0.0020
	Sulfate (SO4) (mg/L)	31.5	32.7	171	32.6	171
	Anion Sum (meq/L)	3.42	3.26	6.68	3.11	6.79
	Cation Sum (meq/L)	2.94	3.11	6.50	2.98	6.44
	Cation - Anion Balance (%)	-7.5	-2.4	-1.3	-2.1	-2.6
Organic / Inorganic Carbon	Dissolved Organic Carbon (mg/L)	1.36	1.39	1.54	1.24	1.52
	Total Organic Carbon (mg/L)	1.34	1.36	1.43	1.28	1.67
Total Metals	Aluminum (Al)-Total (mg/L)	0.0130	0.0083	0.0264	0.0198	0.0259
	Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Arsenic (As)-Total (mg/L)	0.00043	0.00032	0.00055	0.00050	0.00053
	Barium (Ba)-Total (mg/L)	0.0653	0.0657	0.0672	0.0657	0.0638
	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)	0.000261	0.000188	0.000206	0.000396	0.000203
	Calcium (Ca)-Total (mg/L)	42.4	43.2	93.0	42.2	90.4
	Chromium (Cr)-Total (mg/L)	<0.00010	<0.00010	0.00013	0.00010	0.00011
	Cobalt (Co)-Total (mg/L)	0.00148	0.00088	0.00278	0.00262	0.00273
	Copper (Cu)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	0.00054
	Iron (Fe)-Total (mg/L)	0.305	0.306	0.943	0.261	0.869
	Lead (Pb)-Total (mg/L)	0.000238	0.000145	0.000316	0.000357	0.000326
	Lithium (Li)-Total (mg/L)	0.00532	0.00509	0.00664	0.00649	0.00609
	Magnesium (Mg)-Total (mg/L)	9.58	10.6	20.2	10.2	19.9
	Manganese (Mn)-Total (mg/L)	0.136	0.0967	3.03	0.172	2.96
	Molybdenum (Mo)-Total (mg/L)	0.000641	0.000666	0.000697	0.000775	0.000677

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1408313-6	L1408313-7	L1408313-8	L1408313-9	L1408313-10
	Description	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
	Sampled Date	02-JAN-14	30-DEC-13	02-JAN-14	02-JAN-14	02-JAN-14
	Sampled Time	14:15	12:00	14:05	14:00	15:00
	Client ID	NF-2	TRAVEL BLANK	NF-2B	NF-2A	R10
Grouping	**Analyte**					
WATER						
Physical Tests	Conductivity (uS/cm)	288	<2.0	259	370	256
	Hardness (as CaCO3) (mg/L)	147	<0.50	129	175	129
	pH (pH)	7.82	5.61	7.89	7.66	8.01
	Total Suspended Solids (mg/L)	<1.0	<1.0	1.0	4.6	1.2
	Total Dissolved Solids (mg/L)	169	<1.0	147	225	144
Anions and Nutrients	Alkalinity, Total (as CaCO3) (mg/L)	122	<2.0	123	116	118
	Ammonia, Total (as N) (mg/L)	0.0132	<0.0050	0.0057	0.0159	0.0098
	Chloride (Cl) (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50
	Fluoride (F) (mg/L)	0.186	<0.020	0.159	0.282	0.160
	Nitrate (as N) (mg/L)	0.251	<0.0050	0.250	0.343	0.236
	Nitrite (as N) (mg/L)	0.0017	<0.0010	0.0013	0.0034	<0.0010
	Phosphorus (P)-Total (mg/L)	0.0043	<0.0020	0.0050	<0.0020	0.0053
	Sulfate (SO4) (mg/L)	35.5	<0.50	20.6	82.9	20.1
	Anion Sum (meq/L)	3.21	<0.10	2.92	4.08	2.80
	Cation Sum (meq/L)	3.15	<0.10	2.73	3.84	2.73
	Cation - Anion Balance (%)	-1.0	0.0	-3.3	-3.0	-1.4
Organic / Inorganic Carbon	Dissolved Organic Carbon (mg/L)	1.35		1.37	1.68	1.35
	Total Organic Carbon (mg/L)	1.40	<0.50	1.34	2.12	1.29
Total Metals	Aluminum (Al)-Total (mg/L)	0.0271	<0.0030	0.0165	0.0712	0.0129
	Antimony (Sb)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Arsenic (As)-Total (mg/L)	0.00057	<0.00010	0.00057	0.00055	0.00059
	Barium (Ba)-Total (mg/L)	0.0677	<0.000050	0.0676	0.0685	0.0677
	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)	0.000846	<0.000010	0.000021	0.00294	0.000014
	Calcium (Ca)-Total (mg/L)	41.7	<0.020	38.9	41.6	39.8
	Chromium (Cr)-Total (mg/L)	<0.00010	<0.00010	0.00010	0.00019	<0.00010
	Cobalt (Co)-Total (mg/L)	0.00558	<0.00010	<0.00010	0.0198	<0.00010
	Copper (Cu)-Total (mg/L)	<0.00050	<0.00050	<0.00050	0.00065	<0.00050
	Iron (Fe)-Total (mg/L)	0.296	<0.010	0.146	0.684	0.149
	Lead (Pb)-Total (mg/L)	0.000407	0.000076 RRV	0.000822	0.000975	0.000055
	Lithium (Li)-Total (mg/L)	0.00665	<0.00050	0.00557	0.00782	0.00561
	Magnesium (Mg)-Total (mg/L)	11.1	<0.0050	8.39	17.5	8.10
	Manganese (Mn)-Total (mg/L)	0.269	<0.000050	0.0213	0.868	0.0267
	Molybdenum (Mo)-Total (mg/L)	0.000804	<0.000050	0.000770	0.000845	0.000796

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1408313-11 Surface Water 02-JAN-14 14:45 NF1	L1408313-12 Surface Water 02-JAN-14 15:10 R9	L1408313-13 Surface Water 02-JAN-14 15:50 FIELD BLANK	L1408313-14 Surface Water 02-JAN-14 15:20 R8	
WATER						
Physical Tests	Conductivity (uS/cm)	292	252	<2.0	227	
	Hardness (as CaCO3) (mg/L)	145	126	<0.50	117	
	pH (pH)	7.84	8.07	5.60	8.06	
	Total Suspended Solids (mg/L)	3.2	1.2	<1.0	1.0	
	Total Dissolved Solids (mg/L)	166	143	<1.0	125	
Anions and Nutrients	Alkalinity, Total (as CaCO3) (mg/L)	136	120	<2.0	112	
	Ammonia, Total (as N) (mg/L)	0.103	0.0160	<0.0050	0.0121	
	Chloride (Cl) (mg/L)	<0.50	<0.50	<0.50	<0.50	
	Fluoride (F) (mg/L)	0.176	0.161	<0.020	0.157	
	Nitrate (as N) (mg/L)	0.266	0.236	<0.0050	0.144	
	Nitrite (as N) (mg/L)	0.0023	0.0011	<0.0010	0.0014	
	Phosphorus (P)-Total (mg/L)	0.0085	0.0053	<0.0020	0.0059	
	Sulfate (SO4) (mg/L)	23.5	19.6	<0.50	9.54	
	Anion Sum (meq/L)	3.24	2.84	<0.10	2.46	
	Cation Sum (meq/L)	3.09	2.66	<0.10	2.48	
	Cation - Anion Balance (%)	-2.4	-3.3	0.0	0.3	
Organic / Inorganic Carbon	Dissolved Organic Carbon (mg/L)	2.21	1.17	<0.50	1.36	
	Total Organic Carbon (mg/L)	2.28	1.40	<0.50 SP	1.29	
Total Metals	Aluminum (Al)-Total (mg/L)	0.0564	0.0159	<0.0030	0.0105	
	Antimony (Sb)-Total (mg/L)	0.00011	<0.00010	<0.00010	<0.00010	
	Arsenic (As)-Total (mg/L)	0.00067	0.00063	<0.00010	0.00067	
	Barium (Ba)-Total (mg/L)	0.0806	0.0677	<0.000050	0.0647	
	Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	
	Bismuth (Bi)-Total (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	
	Boron (B)-Total (mg/L)	<0.010	<0.010	<0.010	<0.010	
	Cadmium (Cd)-Total (mg/L)	0.000039	<0.000010	<0.000010	<0.000010	
	Calcium (Ca)-Total (mg/L)	42.9	39.3	<0.020	35.0	
	Chromium (Cr)-Total (mg/L)	0.00023	<0.00010	<0.00010	<0.00010	
	Cobalt (Co)-Total (mg/L)	0.00024	<0.00010	<0.00010	<0.00010	
	Copper (Cu)-Total (mg/L)	0.00068	<0.00050	<0.00050	<0.00050	
	Iron (Fe)-Total (mg/L)	0.231	0.156	<0.010	0.172	
	Lead (Pb)-Total (mg/L)	0.00107	0.000065	<0.000050	<0.000050	
	Lithium (Li)-Total (mg/L)	0.00646	0.00566	<0.00050	0.00559	
	Magnesium (Mg)-Total (mg/L)	9.20	8.21	<0.0050	6.51	
	Manganese (Mn)-Total (mg/L)	0.0928	0.0254	<0.000050	0.0242	
	Molybdenum (Mo)-Total (mg/L)	0.000897	0.000818	<0.000050	0.000842	

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1408313-1	L1408313-2	L1408313-3	L1408313-4	L1408313-5
	Description	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
	Sampled Date	02-JAN-14	02-JAN-14	02-JAN-14	02-JAN-14	02-JAN-14
	Sampled Time	13:30	13:20	13:00	13:45	13:00
	Client ID	X3A	X10	X14-R	X2	X14
Grouping	**Analyte**					
WATER						
Total Metals	Nickel (Ni)-Total (mg/L)	0.00307	0.00276	0.00679	0.00435	0.00653
	Phosphorus (P)-Total (mg/L)	<0.30	<0.30	<0.30	<0.30	<0.30
	Potassium (K)-Total (mg/L)	1.05	1.03	1.61	0.947	1.58
	Selenium (Se)-Total (mg/L)	0.00035	0.00040	0.00039	0.00043	0.00037
	Silicon (Si)-Total (mg/L)	5.29	5.20	5.70	5.39	5.56
	Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Sodium (Na)-Total (mg/L)	2.85	2.74	5.49	2.90	5.43
	Strontium (Sr)-Total (mg/L)	0.202	0.205	0.327	0.193	0.316
	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)	0.00232	0.00234	0.00285	0.00211	0.00280
	Vanadium (V)-Total (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	Zinc (Zn)-Total (mg/L)	0.396	0.340	0.296	0.587	0.289
	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)	0.0031	0.0021	0.0031	0.0030	0.0015
	Antimony (Sb)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Arsenic (As)-Dissolved (mg/L)	0.00025	0.00013	0.00020	0.00028	0.00021
	Barium (Ba)-Dissolved (mg/L)	0.0644	0.0653	0.0630	0.0639	0.0626
	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)	0.000241	0.000171	0.000183	0.000374	0.000181
	Calcium (Ca)-Dissolved (mg/L)	40.3	42.6	89.6	39.6	88.9
	Chromium (Cr)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Cobalt (Co)-Dissolved (mg/L)	0.00140	0.00085	0.00266	0.00253	0.00264
	Copper (Cu)-Dissolved (mg/L)	0.00029	0.00029	0.00030	0.00030	0.00030
	Iron (Fe)-Dissolved (mg/L)	0.112	0.042	0.373	0.081	0.373
	Lead (Pb)-Dissolved (mg/L)	<0.000050	<0.000050	<0.000050	0.000054	<0.000050
	Lithium (Li)-Dissolved (mg/L)	0.00517	0.00517	0.00655	0.00621	0.00634
	Magnesium (Mg)-Dissolved (mg/L)	9.28	10.0	19.6	10.1	19.4
	Manganese (Mn)-Dissolved (mg/L)	0.131	0.0919	2.87	0.164	2.90
	Molybdenum (Mo)-Dissolved (mg/L)	0.000587	0.000619	0.000639	0.000728	0.000640
	Nickel (Ni)-Dissolved (mg/L)	0.00293	0.00263	0.00634	0.00418	0.00622
	Phosphorus (P)-Dissolved (mg/L)	<0.30	<0.30	<0.30	<0.30	<0.30
	Potassium (K)-Dissolved (mg/L)	1.01	1.00	1.58	0.930	1.57

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1408313-6 Surface Water 02-JAN-14 14:15 NF-2	L1408313-7 Surface Water 30-DEC-13 12:00 TRAVEL BLANK	L1408313-8 Surface Water 02-JAN-14 14:05 NF-2B	L1408313-9 Surface Water 02-JAN-14 14:00 NF-2A	L1408313-10 Surface Water 02-JAN-14 15:00 R10
Sample ID						
Description						
Sampled Date						
Sampled Time						
Client ID						
WATER						
Total Metals	Nickel (Ni)-Total (mg/L)	0.00843	<0.00050	<0.00050	0.0290	<0.00050
	Phosphorus (P)-Total (mg/L)	<0.30	<0.30	<0.30	<0.30	<0.30
	Potassium (K)-Total (mg/L)	0.941	<0.050	0.899	1.06	0.870
	Selenium (Se)-Total (mg/L)	0.00044	<0.00010	0.00042	0.00045	0.00044
	Silicon (Si)-Total (mg/L)	5.51	<0.050	5.53	5.46	5.43
	Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Sodium (Na)-Total (mg/L)	2.95	<0.050	2.80	3.29	2.74
	Strontium (Sr)-Total (mg/L)	0.191	<0.00020	0.176	0.196	0.175
	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)	0.00213	<0.000010	0.00212	0.00216	0.00212
	Vanadium (V)-Total (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	Zinc (Zn)-Total (mg/L)	1.22	<0.0030	0.0136	4.33	0.0100
	Zirconium (Zr)-Total (mg/L)	<0.00080	<0.00080	0.00109	<0.00080	<0.00080
Dissolved Metals	Dissolved Metals Filtration Location	FIELD		FIELD	FIELD	FIELD
	Aluminum (Al)-Dissolved (mg/L)	0.0068		0.0027	0.0130	0.0021
	Antimony (Sb)-Dissolved (mg/L)	<0.00010		<0.00010	<0.00010	<0.00010
	Arsenic (As)-Dissolved (mg/L)	0.00036		0.00038	0.00023	0.00043
	Barium (Ba)-Dissolved (mg/L)	0.0655		0.0651	0.0663	0.0649
	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)	0.000950		0.000018	0.00294	0.000018
	Calcium (Ca)-Dissolved (mg/L)	40.3		38.2	41.7	38.5
	Chromium (Cr)-Dissolved (mg/L)	<0.00010		<0.00010	<0.00010	<0.00010
	Cobalt (Co)-Dissolved (mg/L)	0.00643		<0.00010	0.0192	<0.00010
	Copper (Cu)-Dissolved (mg/L)	0.00029		0.00029	0.00031	0.00026
	Iron (Fe)-Dissolved (mg/L)	0.173		0.037	0.388	0.038
	Lead (Pb)-Dissolved (mg/L)	0.000092		<0.000050	0.000100	<0.000050
	Lithium (Li)-Dissolved (mg/L)	0.00661		0.00556	0.00793	0.00609
	Magnesium (Mg)-Dissolved (mg/L)	11.1		8.26	17.1	8.02
	Manganese (Mn)-Dissolved (mg/L)	0.305		0.0188	0.834	0.0242
	Molybdenum (Mo)-Dissolved (mg/L)	0.000759		0.000735	0.000760	0.000770
	Nickel (Ni)-Dissolved (mg/L)	0.00973		<0.00050	0.0287	<0.00050
	Phosphorus (P)-Dissolved (mg/L)	<0.30		<0.30	<0.30	<0.30
	Potassium (K)-Dissolved (mg/L)	0.917		0.872	1.02	0.869

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1408313-11 Surface Water 02-JAN-14 14:45 NF1	L1408313-12 Surface Water 02-JAN-14 15:10 R9	L1408313-13 Surface Water 02-JAN-14 15:50 FIELD BLANK	L1408313-14 Surface Water 02-JAN-14 15:20 R8	
WATER						
Total Metals	Nickel (Ni)-Total (mg/L)	0.00087	<0.00050	<0.00050	<0.00050	
	Phosphorus (P)-Total (mg/L)	<0.30	<0.30	<0.30	<0.30	
	Potassium (K)-Total (mg/L)	1.74	0.886	<0.050	0.797	
	Selenium (Se)-Total (mg/L)	0.00046	0.00044	<0.00010	0.00042	
	Silicon (Si)-Total (mg/L)	6.33	5.55	<0.050	5.67	
	Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	
	Sodium (Na)-Total (mg/L)	3.11	2.72	<0.050	2.69	
	Strontium (Sr)-Total (mg/L)	0.191	0.177	<0.00020	0.159	
	Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	
	Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	
	Titanium (Ti)-Total (mg/L)	<0.010	<0.010	<0.010	<0.010	
	Uranium (U)-Total (mg/L)	0.00231	0.00213	<0.000010	0.00183	
	Vanadium (V)-Total (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	
	Zinc (Zn)-Total (mg/L)	0.0250	<0.0030	<0.0030	<0.0030	
	Zirconium (Zr)-Total (mg/L)	<0.00080	<0.00080	<0.00080	<0.00080	
Dissolved Metals	Dissolved Metals Filtration Location	FIELD	FIELD	FIELD	FIELD	
	Aluminum (Al)-Dissolved (mg/L)	0.0028	0.0027	0.0013 RRV	0.0024	
	Antimony (Sb)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	
	Arsenic (As)-Dissolved (mg/L)	0.00042	0.00043	<0.00010	0.00049	
	Barium (Ba)-Dissolved (mg/L)	0.0786	0.0636	<0.000050	0.0638	
	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)	0.000031	<0.000010	<0.000010	<0.000010	
	Calcium (Ca)-Dissolved (mg/L)	43.2	37.2	<0.020	35.9	
	Chromium (Cr)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	
	Cobalt (Co)-Dissolved (mg/L)	0.00018	<0.00010	<0.00010	<0.00010	
	Copper (Cu)-Dissolved (mg/L)	0.00043	0.00026	<0.00020	0.00027	
	Iron (Fe)-Dissolved (mg/L)	0.031	0.039	<0.010	0.060	
	Lead (Pb)-Dissolved (mg/L)	0.000089	<0.000050	<0.000050	<0.000050	
	Lithium (Li)-Dissolved (mg/L)	0.00652	0.00568	<0.00050	0.00583	
	Magnesium (Mg)-Dissolved (mg/L)	9.02	8.00	<0.0050	6.67	
	Manganese (Mn)-Dissolved (mg/L)	0.0852	0.0222	<0.000050	0.0224	
	Molybdenum (Mo)-Dissolved (mg/L)	0.000843	0.000773	<0.000050	0.000790	
	Nickel (Ni)-Dissolved (mg/L)	0.00065	<0.00050	<0.00050	<0.00050	
	Phosphorus (P)-Dissolved (mg/L)	<0.30	<0.30	<0.30	<0.30	
	Potassium (K)-Dissolved (mg/L)	1.63	0.856	<0.050	0.786	

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1408313-1	L1408313-2	L1408313-3	L1408313-4	L1408313-5
	Description	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
	Sampled Date	02-JAN-14	02-JAN-14	02-JAN-14	02-JAN-14	02-JAN-14
	Sampled Time	13:30	13:20	13:00	13:45	13:00
	Client ID	X3A	X10	X14-R	X2	X14
Grouping	**Analyte**					
WATER						
Dissolved Metals	Selenium (Se)-Dissolved (mg/L)	0.00037	0.00039	0.00040	0.00045	0.00039
	Silicon (Si)-Dissolved (mg/L)	5.21	4.99	5.37	5.44	5.53
	Silver (Ag)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Sodium (Na)-Dissolved (mg/L)	2.73	2.61	5.55	2.86	5.30
	Strontium (Sr)-Dissolved (mg/L)	0.192	0.197	0.312	0.177	0.312
	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)	0.00224	0.00227	0.00268	0.00210	0.00268
	Vanadium (V)-Dissolved (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	Zinc (Zn)-Dissolved (mg/L)	0.391	0.332	0.280	0.589	0.279
	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	L1408313-6 Surface Water 02-JAN-14 14:15 NF-2	L1408313-7 Surface Water 30-DEC-13 12:00 TRAVEL BLANK	L1408313-8 Surface Water 02-JAN-14 14:05 NF-2B	L1408313-9 Surface Water 02-JAN-14 14:00 NF-2A	L1408313-10 Surface Water 02-JAN-14 15:00 R10
Sample ID						
Description						
Sampled Date						
Sampled Time						
Client ID						
WATER						
Dissolved Metals	Selenium (Se)-Dissolved (mg/L)	0.00045		0.00043	0.00045	0.00044
	Silicon (Si)-Dissolved (mg/L)	5.44		5.43	5.57	5.31
	Silver (Ag)-Dissolved (mg/L)	<0.000010		<0.000010	<0.000010	<0.000010
	Sodium (Na)-Dissolved (mg/L)	2.89		2.67	3.19	2.79
	Strontium (Sr)-Dissolved (mg/L)	0.181		0.169	0.189	0.172
	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)	0.00209		0.00206	0.00212	0.00206
	Vanadium (V)-Dissolved (mg/L)	<0.0010		<0.0010	<0.0010	<0.0010
	Zinc (Zn)-Dissolved (mg/L)	1.48		0.0127	4.41	0.0094
	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.

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1408313-11	L1408313-12	L1408313-13	L1408313-14	
	Description	Surface Water	Surface Water	Surface Water	Surface Water	
	Sampled Date	02-JAN-14	02-JAN-14	02-JAN-14	02-JAN-14	
	Sampled Time	14:45	15:10	15:50	15:20	
	Client ID	NF1	R9	FIELD BLANK	R8	
Grouping	**Analyte**					
WATER						
Dissolved Metals	Selenium (Se)-Dissolved (mg/L)	0.00046	0.00041	<0.00010	0.00041	
	Silicon (Si)-Dissolved (mg/L)	6.12	5.33	<0.050	5.46	
	Silver (Ag)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	
	Sodium (Na)-Dissolved (mg/L)	3.08	2.70	<0.050	2.63	
	Strontium (Sr)-Dissolved (mg/L)	0.188	0.169	<0.00020	0.158	
	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)	0.00219	0.00204	<0.000010	0.00178	
	Vanadium (V)-Dissolved (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	
	Zinc (Zn)-Dissolved (mg/L)	0.0230	<0.0010	<0.0010	<0.0010	
	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)
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L1408313-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1408313-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -8, -9

Qualifiers for Individual Parameters Listed:

Qualifier	Description
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRV	Reported Result Verified By Repeat Analysis
SP	Sample was Preserved at the laboratory

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-PCT-VA Water Conductivity (Automated) APHA 2510 Auto. Conduc.

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

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

Reference Information

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-COL-VA Water Total P in Water by Colour APHA 4500-P Phosphorous

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

PH-PCT-VA Water pH by Meter (Automated) APHA 4500-H "pH Value"

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

It is recommended that this analysis be conducted in the field.

PH-PCT-VA Water pH by Meter (Automated) APHA 4500-H pH Value

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

It is recommended that this analysis be conducted in the field.

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:

1 2

Reference Information

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.

ALS Environmental

Chain of Custody / Analytical Request Form

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

COC # _____

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Report To		Report Format / Distribution	Service Requested (Rush for routine analysis subject to availability)
Company:	EDI	☑ Standard ☐ Other	○ Regular (Standard Turnaround Times - Business Days)
Contact:	Meighan Kearns	☑ PDF ☑ Excel ☐ Digital ☐ Fax	◉ Priority (2-4 Business Days) - 50% Surcharge - Contact ALS to Confirm TAT
Address:	2195 - 2nd Avenue	Email 1: mkearns@edynamics.com	○ Emergency (1-2 Bus. Days) - 100% Surcharge - Contact ALS to Confirm TAT
	Whitehorse, YT Y1A 3T8	Email 2: adrienne.turcotte@gov.yk.ca	○ Same Day or Weekend Emergency - Contact ALS to Confirm TAT
Phone:	867-393-4882 Fax:	Email 3:	
Invoice To	Same as Report ? ☑ Yes ☐ No	Client / Project Information	
Hardcopy of Invoice with Report?	☐ Yes ☐ No	Job #: 13-Y-0452	
Company:		PO / AFE:	
Contact:		LSD:	
Address:			
Phone:	Fax:	Quote #: Q38556	
Lab Work Order # (lab use only)		ALS Contact: Shawn	Sampler: CL + LG

Analysis Request

Please indicate below Filtered, Preserved or both (F, P, F/P)

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	ALK-COL-VA,P-T-COL-VA	ANIONS-ALL-IC-WR	CARBONS-DOC-VA	CARBONS-TOC-VA,NH3-F-VA	EC-MAN-WR,PH-MAN-WR	MET-D-CCMS-VA,ZR-D-MS	MET-T-CCMS-VA,ZR-T-MS	IONBALANCE-VA	TDS-CALC-VA	TSS-LOW-WR	HARDNESS-CALC-VA		Number of Containers
	X3A	02-Jan-14	13:30	Surface Water	X	X	X	X	X	X	X	X	X	X	X		5
	X10	02-Jan-14	13:20	Surface Water	X	X	X	X	X	X	X	X	X	X	X		5
	X14-c	02-Jan-14	13:00	Surface Water	X	X	X	X	X	X	X	X	X	X	X		5
	X2	02-Jan-14	13:45	Surface Water	X	X	X	X	X	X	X	X	X	X	X		5
	X14	02-Jan-14	13:00	Surface Water	X	X	X	X	X	X	X	X	X	X	X		5
	NF-2	02-Jan-14	14:15	Surface Water	X	X	X	X	X	X	X	X	X	X	X		5
	Travel Blank	30-Dec-14		WATER	X	X	X	X	X	X	X	X	X	X	X		4

L1408313-COFC

Special Instructions / Regulations with water or land use (CCME-Freshwater Aquatic Life/BC CSR - Commercial/AB Tier 1 - Natural, etc) / Hazardous Details

Use Faro Equis Format to report

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 provided on a separate Excel tab.

Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date (dd-mmm-yy)	Time (hh-mm)	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
[signature]	03-Jan-14	09:11	[signature]	3-Jan 13	10:00	3.8, 1.0 °C				

ALS Environmental

Chain of Custody / Analytical Request Form
Canada Toll Free: 1 800 668 9878
www.alsglobal.com

COC # ____

Page 1 of 1

Report To		Report Format / Distribution	
Company:	EDI	☑ Standard ☐ Other	
Contact:	Meighan Kearns	☑ PDF ☑ Excel ☐ Digital ☐ Fax	
Address:	2195 - 2nd Avenue	Email 1:	mkearns@edynamics.com
	Whitehorse, YT Y1A 3T8	Email 2:	adrienne.turcotte@gov.yk.ca
Phone:	867-393-4882 Fax:	Email 3:	
Invoice To	Same as Report ? ☑ Yes ☐ No	Client / Project Information	
Hardcopy of Invoice with Report?	☐ Yes ☐ No	Job #:	13-Y-0452
Company:		PO / AFE:	
Contact:		LSD:	
Address:			
Phone:	Fax:	Quote #:	Q38556
Lab Work Order # (lab use only)		ALS Contact: Shawn	Sampler: CL + LG

Service Requested (Rush for routine analysis subject to availability)
- ○ Regular (Standard Turnaround Times - Business Days)
- ◉ Priority (2-4 Business Days) - 50% Surcharge - Contact ALS to Confirm TAT
- ○ Emergency (1-2 Bus. Days) - 100% Surcharge - Contact ALS to Confirm TAT
- ○ Same Day or Weekend Emergency - Contact ALS to Confirm TAT

Analysis Request

Please indicate below Filtered, Preserved or both (F, P, F/P)

Sample #	Sample Identification (This description	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	ALK-COL-VA,P-T-COL-VA	ANIONS-ALL-IC-WR	CARBONS-DOC-VA	CARBONS-TOC-VA,NH3-F-V	EC-MAN-WR,PH-MAN-WR	MET-D-CCMS-VA,ZR-D-MS-	MET-T-CCMS-VA,ZR-T-MS-	IONBALANCE-VA	TDS-CALC-VA	TSS-LOW-WR	HARDNESS-CALC-VA		Number of Containers
	NF-2B	02-Jan-14	14:05	Surface Water	X	X	X	X	X	X	X	X	X	X	X		5
	NF-2A	02-Jan-14	14:00	Surface Water	X	X	X	X	X	X	X	X	X	X	X		5
	R10	02-Jan-14	15:00	Surface Water	X	X	X	X	X	X	X	X	X	X	X		5
	~~[illegible]~~ NF1	02-Jan-14	14:45	Surface Water	X	X	X	X	X	X	X	X	X	X	X		5
	R9	02-Jan-14	15:10	Surface Water	X	X	X	X	X	X	X	X	X	X	X		5
	Field Blank	02-Jan-14	15:50	Surface Water	X	X	X	X	X	X	X	X	X	X	X		5
	R8	02-Jan-14	15:20	Surface Water	X	X	X	X	X	X	X	X	X	X	X		5

L1408313-COFC

Special Instructions / Regulations with water or land use (CCME-Freshwater Aquatic Life/BC CSR - Commercial/AB Tier 1 - Natural, etc) / Hazardous Details

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SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date (dd-mmm-yy)	Time (hh-mm)	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
[signature]	03-Jan-14	09:02	[signature]	3-Jan-13	10:00	3.8, 1.0 °C				

GENF 18.01 Front