EDI ENVIRONMENTAL DYNAMICS INC.
ATTN: Lyndsay Doetzel
2195 - 2nd Ave
Whitehorse YT Y1A 3T8

Date Received: 07-DEC-16
Report Date: 22-DEC-16 14:10 (MT)
Version: FINAL

Client Phone: 867-393-4882

Certificate of Analysis

Lab Work Order #: L1867796

Project P.O. #: NOT SUBMITTED
Job Reference: MOUNT NANSEN 16Y0089
C of C Numbers:
Legal Site Desc:

Can Dang
Senior Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1867796-2	L1867796-3	L1867796-4	L1867796-5	L1867796-6
Description	WATER	WATER	WATER	WATER	WATER
Sampled Date	06-DEC-16	05-DEC-16	05-DEC-16	05-DEC-16	05-DEC-16
Sampled Time	12:45	16:40	15:15	14:50	16:00
Client ID	WQ-VC-UMN	WQ-DC-DX+105	WQ-SEEP	WQ-DC-U	WQ-TP-R
Grouping / **Analyte**					
WATER					
Physical Tests Colour, True (CU)					
Conductivity (uS/cm)	253	1110	1540	1470	1980
Hardness (as CaCO3) (mg/L)	127	672	849	832	1240
pH (pH)	7.89	8.12	8.00	8.01	8.12
Total Suspended Solids (mg/L)	<3.0	<3.0	44.8	46.2	3.1
Total Dissolved Solids (mg/L)					
TDS (Calculated) (mg/L)	143	795	1210	1120	1710
Turbidity (NTU)					
Anions and Nutrients Alkalinity, Bicarbonate (as CaCO3) (mg/L)	106	271	281	279	195
Alkalinity, Carbonate (as CaCO3) (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Hydroxide (as CaCO3) (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Total (as CaCO3) (mg/L)	106	271	281	279	195
Ammonia, Total (as N) (mg/L)	<0.0050	0.0175	5.98 DLDS	4.65 DLDS	0.153
Bromide (Br) (mg/L)	<0.050	<0.25 DLDS	<0.25 DLDS	<0.25 DLDS	<0.50 DLDS
Chloride (Cl) (mg/L)	<0.50	<2.5 DLDS	<2.5 DLDS	<2.5 DLDS	<5.0 DLDS
Fluoride (F) (mg/L)	0.047	0.17	<0.10 DLDS	0.11	0.30
Nitrate (as N) (mg/L)	0.111	<0.025 DLDS	1.02	0.289	0.085
Nitrite (as N) (mg/L)	<0.0010	<0.0050	0.0168	0.0117	<0.010 DLDS
Sulfate (SO4) (mg/L)	31.8	390	660	605	1090
Anion Sum (meq/L)	2.78	13.5	19.4	18.2	26.6
Cation Sum (meq/L)	2.69	13.8	20.1	18.7	26.4
Cation - Anion Balance (%)	-1.6	0.9	1.5	1.4	-0.4
Cyanides Cyanide, Weak Acid Diss (mg/L)	<0.0050	<0.0050	0.0110	0.0092	<0.0050
Cyanide, Total (mg/L)	<0.0050	<0.0050	0.0190	0.0149	<0.0050
Cyanate (mg/L)	<2.0 DLIS	<0.20	<0.20	<0.20	1.40
Thiocyanate (SCN) (mg/L)	<0.50	<0.50	5.04	2.40	<0.50
Total Metals Aluminum (Al)-Total (mg/L)	0.0255	0.0207	0.0177	0.101	0.0157
Antimony (Sb)-Total (mg/L)	0.00042	0.00878	0.00049	0.00038	0.0394
Arsenic (As)-Total (mg/L)	0.00204	0.0650	0.0736	0.0713	0.129
Barium (Ba)-Total (mg/L)	0.0770	0.0126	0.0633	0.0781	0.0210
Beryllium (Be)-Total (mg/L)	<0.000020	<0.000020	<0.000020	<0.000020	<0.000040 DLA
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.00010 DLA
Boron (B)-Total (mg/L)	<0.010	<0.010	0.051	0.041	0.107
Cadmium (Cd)-Total (mg/L)	0.0000292	0.00216	0.000418	0.000136	0.000909
Calcium (Ca)-Total (mg/L)	29.0	170	247	228	368
Chromium (Cr)-Total (mg/L)	0.00011	<0.00010	0.00062	0.00056	<0.00020 DLA
Cobalt (Co)-Total (mg/L)	<0.00010	0.00094	0.00734	0.00519	0.00055

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1867796-7 WATER 06-DEC-16 15:55 WQ-PW	L1867796-8 WATER 06-DEC-16 10:25 WQ-VC-DBC	L1867796-9 WATER 06-DEC-16 15:30 WQ-FIELD BLANK	L1867796-10 WATER 06-DEC-16 WQ-TRAVEL BLANK	L1867796-11 WATER 06-DEC-16 10:45 WQ-VC-U
WATER						
Physical Tests	Colour, True (CU)	<5.0				
	Conductivity (uS/cm)	352	230	<2.0	<2.0	224
	Hardness (as CaCO3) (mg/L)	173 HTC	116	<0.50	<0.50 HTC	113
	pH (pH)	8.27	8.05	5.46	5.46	8.04
	Total Suspended Solids (mg/L)		<3.0	<3.0	<3.0	<3.0
	Total Dissolved Solids (mg/L)	238				
	TDS (Calculated) (mg/L)		127	<1.0	<1.0	125
	Turbidity (NTU)	<0.10				
Anions and Nutrients	Alkalinity, Bicarbonate (as CaCO3) (mg/L)		105	<1.0	<1.0	105
	Alkalinity, Carbonate (as CaCO3) (mg/L)		<1.0	<1.0	<1.0	<1.0
	Alkalinity, Hydroxide (as CaCO3) (mg/L)		<1.0	<1.0	<1.0	<1.0
	Alkalinity, Total (as CaCO3) (mg/L)	164	105	<1.0	<1.0	105
	Ammonia, Total (as N) (mg/L)		<0.0050	<0.0050	<0.0050	<0.0050
	Bromide (Br) (mg/L)		<0.050	<0.050	<0.050	<0.050
	Chloride (Cl) (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50
	Fluoride (F) (mg/L)	0.101	0.046	<0.020	<0.020	0.046
	Nitrate (as N) (mg/L)	0.124	0.115	<0.0050	<0.0050	0.117
	Nitrite (as N) (mg/L)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	Sulfate (SO4) (mg/L)	30.7	19.8	<0.30	<0.30	19.2
	Anion Sum (meq/L)		2.53	<0.10	<0.10	2.50
	Cation Sum (meq/L)		2.45	<0.10	<0.10	2.41
	Cation - Anion Balance (%)		-1.5	0.0	0.0	-1.9
Cyanides	Cyanide, Weak Acid Diss (mg/L)		<0.0050	<0.0050	<0.0050	<0.0050
	Cyanide, Total (mg/L)		<0.0050	<0.0050	<0.0050	<0.0050
	Cyanate (mg/L)		<0.20	<0.20	<0.20	<0.20
	Thiocyanate (SCN) (mg/L)		<0.50	<0.50	<0.50	<0.50
Total Metals	Aluminum (Al)-Total (mg/L)	<0.010	0.0132	<0.0030	<0.0030	0.0143
	Antimony (Sb)-Total (mg/L)	<0.00050	0.00014	<0.00010	<0.00010	0.00012
	Arsenic (As)-Total (mg/L)	0.00035	0.00024	<0.00010	<0.00010	0.00024
	Barium (Ba)-Total (mg/L)	0.078	0.0817	<0.000050	<0.000050	0.0814
	Beryllium (Be)-Total (mg/L)		<0.000020	<0.000020	<0.000020	<0.000020
	Bismuth (Bi)-Total (mg/L)		<0.000050	<0.000050	<0.000050	<0.000050
	Boron (B)-Total (mg/L)	<0.10	<0.010	<0.010	<0.010	<0.010
	Cadmium (Cd)-Total (mg/L)	<0.00020	0.0000243	<0.0000050	<0.0000050	0.0000193
	Calcium (Ca)-Total (mg/L)	40.0	28.3	<0.050	<0.050	27.8
	Chromium (Cr)-Total (mg/L)	<0.0020	<0.00010	<0.00010	<0.00010	<0.00010
	Cobalt (Co)-Total (mg/L)		<0.00010	<0.00010	<0.00010	<0.00010

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ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1867796-12	L1867796-13			
	Description	WATER	WATER			
	Sampled Date	05-DEC-16	05-DEC-16			
	Sampled Time	13:05	15:50			
	Client ID	WQ-VC-R+150	WQ-TP			
Grouping	**Analyte**					
WATER						
Physical Tests	Colour, True (CU)					
	Conductivity (uS/cm)	255	1970			
	Hardness (as CaCO3) (mg/L)	129	1260			
	pH (pH)	8.04	8.14			
	Total Suspended Solids (mg/L)	<3.0	<3.0			
	Total Dissolved Solids (mg/L)					
	TDS (Calculated) (mg/L)	145	1700			
	Turbidity (NTU)					
Anions and Nutrients	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	104	195			
	Alkalinity, Carbonate (as CaCO3) (mg/L)	<1.0	<1.0			
	Alkalinity, Hydroxide (as CaCO3) (mg/L)	<1.0	<1.0			
	Alkalinity, Total (as CaCO3) (mg/L)	104	195			
	Ammonia, Total (as N) (mg/L)	0.0091	0.157			
	Bromide (Br) (mg/L)	<0.050	<0.50 DLDS			
	Chloride (Cl) (mg/L)	<0.50	<5.0 DLDS			
	Fluoride (F) (mg/L)	0.047	0.31			
	Nitrate (as N) (mg/L)	0.106	0.093			
	Nitrite (as N) (mg/L)	<0.0010	<0.010 DLDS			
	Sulfate (SO4) (mg/L)	33.4	1080			
	Anion Sum (meq/L)	2.79	26.4			
	Cation Sum (meq/L)	2.74	26.8			
	Cation - Anion Balance (%)	-0.8	0.7			
Cyanides	Cyanide, Weak Acid Diss (mg/L)	<0.0050	<0.0050			
	Cyanide, Total (mg/L)	<0.0050	<0.0050			
	Cyanate (mg/L)	<0.20	<0.20			
	Thiocyanate (SCN) (mg/L)	<0.50	<0.50			
Total Metals	Aluminum (Al)-Total (mg/L)	0.0167	0.0150			
	Antimony (Sb)-Total (mg/L)	0.00050	0.0391			
	Arsenic (As)-Total (mg/L)	0.00171	0.138			
	Barium (Ba)-Total (mg/L)	0.0792	0.0240			
	Beryllium (Be)-Total (mg/L)	<0.000020	<0.000040 DLA			
	Bismuth (Bi)-Total (mg/L)	<0.000050	<0.00010 DLA			
	Boron (B)-Total (mg/L)	<0.010	0.105			
	Cadmium (Cd)-Total (mg/L)	0.0000243	0.000895			
	Calcium (Ca)-Total (mg/L)	31.5	363			
	Chromium (Cr)-Total (mg/L)	<0.00010	<0.00020 DLA			
	Cobalt (Co)-Total (mg/L)	<0.00010	0.00055			

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1867796-2 WATER 06-DEC-16 12:45 WQ-VC-UMN	L1867796-3 WATER 05-DEC-16 16:40 WQ-DC-DX+105	L1867796-4 WATER 05-DEC-16 15:15 WQ-SEEP	L1867796-5 WATER 05-DEC-16 14:50 WQ-DC-U	L1867796-6 WATER 05-DEC-16 16:00 WQ-TP-R
WATER						
Total Metals	Copper (Cu)-Total (mg/L)	0.00125	<0.00050	0.00348	0.00265	0.0298
	Iron (Fe)-Total (mg/L)	0.058	0.649	17.0	8.07	0.257
	Lead (Pb)-Total (mg/L)	0.000214	0.000254	0.000068	0.000275	0.00492
	Lithium (Li)-Total (mg/L)	<0.0010	0.0090	<0.0010	<0.0010	0.0140
	Magnesium (Mg)-Total (mg/L)	10.5	56.1	53.7	57.7	67.0
	Manganese (Mn)-Total (mg/L)	0.0511	1.22	5.81	4.79	0.284
	Mercury (Hg)-Total (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000062
	Molybdenum (Mo)-Total (mg/L)	0.000351	0.000382	0.00106	0.000804	0.00154
	Nickel (Ni)-Total (mg/L)	<0.00050	0.00160	0.00304	0.00216	0.0011
	Phosphorus (P)-Total (mg/L)	<0.050	<0.050	<0.050	0.064	<0.10 DLA
	Potassium (K)-Total (mg/L)	0.73	3.37	5.68	4.92	21.6
	Selenium (Se)-Total (mg/L)	<0.000050	<0.000050	0.000287	0.000200	<0.00010 DLA
	Silicon (Si)-Total (mg/L)	6.56	6.88	8.00	7.73	5.54
	Silver (Ag)-Total (mg/L)	<0.000010	<0.000010	0.000026	0.000016	0.000166
	Sodium (Na)-Total (mg/L)	3.28	5.18	36.1	29.8	23.1
	Strontium (Sr)-Total (mg/L)	0.297	0.428	0.741	0.746	1.02
	Sulfur (S)-Total (mg/L)	10.7	138	235	218	377
	Thallium (Tl)-Total (mg/L)	<0.000010	0.000091	<0.000010	<0.000010	0.000169
	Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020 DLA
	Titanium (Ti)-Total (mg/L)	0.00066	0.00089	0.00101	0.00548	<0.00060 DLA
	Uranium (U)-Total (mg/L)	0.000688	0.00442	0.00219	0.00153	0.00181
	Vanadium (V)-Total (mg/L)	<0.00050	<0.00050	0.00271	0.00175	<0.0010 DLA
	Zinc (Zn)-Total (mg/L)	0.0032	0.735	0.0375	0.0118	0.130
	Zirconium (Zr)-Total (mg/L)	<0.00030	<0.00030	0.00078	0.00041	<0.00060 DLA
Dissolved Metals	Dissolved Mercury Filtration Location	FIELD	FIELD	FIELD	FIELD	FIELD
	Dissolved Metals Filtration Location	FIELD	FIELD	FIELD	FIELD	FIELD
	Aluminum (Al)-Dissolved (mg/L)	0.0073	<0.0010	0.0100	0.0070	<0.0020 DLA
	Antimony (Sb)-Dissolved (mg/L)	0.00040	0.00840	0.00043	0.00029	0.0405
	Arsenic (As)-Dissolved (mg/L)	0.00185	0.0158	0.0582	0.0418	0.107
	Barium (Ba)-Dissolved (mg/L)	0.0760	0.0111	0.0615	0.0725	0.0220
	Beryllium (Be)-Dissolved (mg/L)	<0.000020	<0.000020	<0.000020	<0.000020	<0.000040 DLA
	Bismuth (Bi)-Dissolved (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.00010 DLA
	Boron (B)-Dissolved (mg/L)	<0.010	<0.010	0.048	0.035	0.102
	Cadmium (Cd)-Dissolved (mg/L)	0.0000284	0.000481	0.000340	0.000107	0.000924
	Calcium (Ca)-Dissolved (mg/L)	32.4	174	251	233	381
	Chromium (Cr)-Dissolved (mg/L)	<0.00010	<0.00010	0.00048	0.00032	<0.00020 DLA
	Cobalt (Co)-Dissolved (mg/L)	<0.00010	0.00091	0.00762	0.00517	0.00060

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1867796-7	L1867796-8	L1867796-9	L1867796-10	L1867796-11
Description	WATER	WATER	WATER	WATER	WATER
Sampled Date	06-DEC-16	06-DEC-16	06-DEC-16	06-DEC-16	06-DEC-16
Sampled Time	15:55	10:25	15:30		10:45
Client ID	WQ-PW	WQ-VC-DBC	WQ-FIELD BLANK	WQ-TRAVEL BLANK	WQ-VC-U
Grouping / **Analyte**					
WATER					
Total Metals Copper (Cu)-Total (mg/L)	<0.0010	0.00148	<0.00050	<0.00050	0.00137
Iron (Fe)-Total (mg/L)	<0.030	0.029	<0.010	<0.010	0.029
Lead (Pb)-Total (mg/L)	0.00061	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Total (mg/L)		<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total (mg/L)	17.7	9.74	<0.10	<0.10	9.56
Manganese (Mn)-Total (mg/L)	<0.0020	0.0865	<0.00010	<0.00010	0.0819
Mercury (Hg)-Total (mg/L)	<0.00020	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Total (mg/L)		0.000401	<0.000050	<0.000050	0.000401
Nickel (Ni)-Total (mg/L)		<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Total (mg/L)		<0.050	<0.050	<0.050	<0.050
Potassium (K)-Total (mg/L)	0.81	0.69	<0.10	<0.10	0.67
Selenium (Se)-Total (mg/L)	<0.0010	<0.000050	<0.000050	<0.000050	<0.000050
Silicon (Si)-Total (mg/L)		6.53	<0.050	<0.050	6.69
Silver (Ag)-Total (mg/L)		<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Total (mg/L)	4.4	2.84	<0.050	<0.050	2.73
Strontium (Sr)-Total (mg/L)		0.326	<0.00020	<0.00020	0.327
Sulfur (S)-Total (mg/L)		6.78	<0.50	<0.50	6.43
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)		<0.00030	<0.00030	<0.00030	<0.00030
Uranium (U)-Total (mg/L)	0.00167	0.000700	<0.000010	<0.000010	0.000714
Vanadium (V)-Total (mg/L)		<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total (mg/L)	<0.050	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium (Zr)-Total (mg/L)		<0.00030	<0.00030	<0.00030	<0.00030
Dissolved Metals Dissolved Mercury Filtration Location		FIELD	FIELD		FIELD
Dissolved Metals Filtration Location		FIELD	FIELD		FIELD
Aluminum (Al)-Dissolved (mg/L)		0.0068	<0.0010		0.0070
Antimony (Sb)-Dissolved (mg/L)		<0.00010	<0.00010		<0.00010
Arsenic (As)-Dissolved (mg/L)		0.00028	<0.00010		0.00025
Barium (Ba)-Dissolved (mg/L)		0.0856	<0.000050		0.0860
Beryllium (Be)-Dissolved (mg/L)		<0.000020	<0.000020		<0.000020
Bismuth (Bi)-Dissolved (mg/L)		<0.000050	<0.000050		<0.000050
Boron (B)-Dissolved (mg/L)		<0.010	<0.010		<0.010
Cadmium (Cd)-Dissolved (mg/L)		0.0000284	<0.0000050		0.0000229
Calcium (Ca)-Dissolved (mg/L)		29.7	<0.050		29.1
Chromium (Cr)-Dissolved (mg/L)		<0.00010	<0.00010		<0.00010
Cobalt (Co)-Dissolved (mg/L)		<0.00010	<0.00010		<0.00010

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1867796-12	L1867796-13			
	Description	WATER	WATER			
	Sampled Date	05-DEC-16	05-DEC-16			
	Sampled Time	13:05	15:50			
	Client ID	WQ-VC-R+150	WQ-TP			
Grouping	**Analyte**					
WATER						
Total Metals	Copper (Cu)-Total (mg/L)	0.00119	0.0295			
	Iron (Fe)-Total (mg/L)	0.029	0.259			
	Lead (Pb)-Total (mg/L)	0.000076	0.00492			
	Lithium (Li)-Total (mg/L)	<0.0010	0.0138			
	Magnesium (Mg)-Total (mg/L)	10.8	67.2			
	Manganese (Mn)-Total (mg/L)	0.0150	0.275			
	Mercury (Hg)-Total (mg/L)	<0.0000050	0.0000059			
	Molybdenum (Mo)-Total (mg/L)	0.000374	0.00155			
	Nickel (Ni)-Total (mg/L)	<0.00050	0.0012			
	Phosphorus (P)-Total (mg/L)	<0.050	<0.10 DLA			
	Potassium (K)-Total (mg/L)	0.81	21.1			
	Selenium (Se)-Total (mg/L)	<0.000050	<0.00010 DLA			
	Silicon (Si)-Total (mg/L)	6.63	5.56			
	Silver (Ag)-Total (mg/L)	<0.000010	0.000158			
	Sodium (Na)-Total (mg/L)	3.42	23.0			
	Strontium (Sr)-Total (mg/L)	0.313	1.01			
	Sulfur (S)-Total (mg/L)	11.4	377			
	Thallium (Tl)-Total (mg/L)	<0.000010	0.000167			
	Tin (Sn)-Total (mg/L)	<0.00010	<0.00020 DLA			
	Titanium (Ti)-Total (mg/L)	0.00045	0.00262			
	Uranium (U)-Total (mg/L)	0.000640	0.00181			
	Vanadium (V)-Total (mg/L)	<0.00050	<0.0010 DLA			
	Zinc (Zn)-Total (mg/L)	<0.0030	0.133			
	Zirconium (Zr)-Total (mg/L)	<0.00030	<0.00060 DLA			
Dissolved Metals	Dissolved Mercury Filtration Location	FIELD	FIELD			
	Dissolved Metals Filtration Location	FIELD	FIELD			
	Aluminum (Al)-Dissolved (mg/L)	0.0062	0.0021			
	Antimony (Sb)-Dissolved (mg/L)	0.00050	0.0408			
	Arsenic (As)-Dissolved (mg/L)	0.00176	0.109			
	Barium (Ba)-Dissolved (mg/L)	0.0825	0.0229			
	Beryllium (Be)-Dissolved (mg/L)	<0.000020	<0.000040 DLA			
	Bismuth (Bi)-Dissolved (mg/L)	<0.000050	<0.00010 DLA			
	Boron (B)-Dissolved (mg/L)	<0.010	0.102			
	Cadmium (Cd)-Dissolved (mg/L)	0.0000217	0.000925			
	Calcium (Ca)-Dissolved (mg/L)	33.1	388			
	Chromium (Cr)-Dissolved (mg/L)	<0.00010	<0.00020 DLA			
	Cobalt (Co)-Dissolved (mg/L)	<0.00010	0.00055			

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1867796-2 WATER 06-DEC-16 12:45 WQ-VC-UMN	L1867796-3 WATER 05-DEC-16 16:40 WQ-DC-DX+105	L1867796-4 WATER 05-DEC-16 15:15 WQ-SEEP	L1867796-5 WATER 05-DEC-16 14:50 WQ-DC-U	L1867796-6 WATER 05-DEC-16 16:00 WQ-TP-R
WATER						
Dissolved Metals	Copper (Cu)-Dissolved (mg/L)	0.00170	<0.00020	0.00206	0.00161	0.0282
	Iron (Fe)-Dissolved (mg/L)	0.022	0.154	15.9	3.92	0.041
	Lead (Pb)-Dissolved (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	0.00079
	Lithium (Li)-Dissolved (mg/L)	<0.0010	0.0085	0.0013	0.0011	0.0139
	Magnesium (Mg)-Dissolved (mg/L)	11.1	57.8	54.2	60.8	70.1
	Manganese (Mn)-Dissolved (mg/L)	0.0501	1.24	6.35	5.28	0.292
	Mercury (Hg)-Dissolved (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
	Molybdenum (Mo)-Dissolved (mg/L)	0.000366	0.000365	0.000993	0.000739	0.00155
	Nickel (Ni)-Dissolved (mg/L)	<0.00050	0.00153	0.00320	0.00207	0.0011
	Phosphorus (P)-Dissolved (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.10 DLA
	Potassium (K)-Dissolved (mg/L)	0.82	3.52	6.14	5.60	24.5
	Selenium (Se)-Dissolved (mg/L)	<0.000050	<0.000050	0.000288	0.000201	<0.00010 DLA
	Silicon (Si)-Dissolved (mg/L)	6.54	6.76	7.75	7.37	5.27
	Silver (Ag)-Dissolved (mg/L)	<0.000010	<0.000010	0.000011	<0.000010	0.000062
	Sodium (Na)-Dissolved (mg/L)	3.24	4.89	32.9	27.9	22.0
	Strontium (Sr)-Dissolved (mg/L)	0.329	0.428	0.750	0.745	1.03
	Sulfur (S)-Dissolved (mg/L)	10.3	135	225	213	369
	Thallium (Tl)-Dissolved (mg/L)	<0.000010	0.000082	<0.000010	<0.000010	0.000172
	Tin (Sn)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020 DLA
	Titanium (Ti)-Dissolved (mg/L)	<0.00030	<0.00030	0.00101	0.00041	<0.00060 DLA
	Uranium (U)-Dissolved (mg/L)	0.000708	0.00438	0.00207	0.00154	0.00180
	Vanadium (V)-Dissolved (mg/L)	<0.00050	<0.00050	0.00221	0.00080	<0.0010 DLA
	Zinc (Zn)-Dissolved (mg/L)	0.0022	0.729	0.0401	0.0107	0.130
	Zirconium (Zr)-Dissolved (mg/L)	<0.00030	<0.00030	0.00076	0.00037	<0.00060 DLA

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1867796-7	L1867796-8	L1867796-9	L1867796-10	L1867796-11
Description	WATER	WATER	WATER	WATER	WATER
Sampled Date	06-DEC-16	06-DEC-16	06-DEC-16	06-DEC-16	06-DEC-16
Sampled Time	15:55	10:25	15:30		10:45
Client ID	WQ-PW	WQ-VC-DBC	WQ-FIELD BLANK	WQ-TRAVEL BLANK	WQ-VC-U
Grouping / **Analyte**					
WATER					
Dissolved Metals Copper (Cu)-Dissolved (mg/L)		0.00107	<0.00020		0.00106
Iron (Fe)-Dissolved (mg/L)		0.016	<0.010		0.017
Lead (Pb)-Dissolved (mg/L)		<0.000050	<0.000050		<0.000050
Lithium (Li)-Dissolved (mg/L)		<0.0010	<0.0010		<0.0010
Magnesium (Mg)-Dissolved (mg/L)		10.1	<0.10		9.92
Manganese (Mn)-Dissolved (mg/L)		0.0889	<0.00010		0.0839
Mercury (Hg)-Dissolved (mg/L)		<0.0000050	<0.0000050		<0.0000050
Molybdenum (Mo)-Dissolved (mg/L)		0.000379	<0.000050		0.000397
Nickel (Ni)-Dissolved (mg/L)		0.00123	<0.00050		<0.00050
Phosphorus (P)-Dissolved (mg/L)		<0.050	<0.050		<0.050
Potassium (K)-Dissolved (mg/L)		0.76	<0.10		0.75
Selenium (Se)-Dissolved (mg/L)		<0.000050	<0.000050		<0.000050
Silicon (Si)-Dissolved (mg/L)		6.45	<0.050		6.50
Silver (Ag)-Dissolved (mg/L)		<0.000010	<0.000010		<0.000010
Sodium (Na)-Dissolved (mg/L)		2.71	<0.050		2.68
Strontium (Sr)-Dissolved (mg/L)		0.333	<0.00020		0.328
Sulfur (S)-Dissolved (mg/L)		6.77	<0.50		6.63
Thallium (Tl)-Dissolved (mg/L)		<0.000010	<0.000010		<0.000010
Tin (Sn)-Dissolved (mg/L)		<0.00010	<0.00010		<0.00010
Titanium (Ti)-Dissolved (mg/L)		<0.00030	<0.00030		<0.00030
Uranium (U)-Dissolved (mg/L)		0.000676	<0.000010		0.000650
Vanadium (V)-Dissolved (mg/L)		<0.00050	<0.00050		<0.00050
Zinc (Zn)-Dissolved (mg/L)		0.0011	<0.0010		0.0012
Zirconium (Zr)-Dissolved (mg/L)		<0.00030	<0.00030		<0.00030

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1867796-12	L1867796-13			
	Description	WATER	WATER			
	Sampled Date	05-DEC-16	05-DEC-16			
	Sampled Time	13:05	15:50			
	Client ID	WQ-VC-R+150	WQ-TP			
Grouping	**Analyte**					
WATER						
Dissolved Metals	Copper (Cu)-Dissolved (mg/L)	0.00122	0.0278			
	Iron (Fe)-Dissolved (mg/L)	0.012	0.042			
	Lead (Pb)-Dissolved (mg/L)	<0.000050	0.00080			
	Lithium (Li)-Dissolved (mg/L)	<0.0010	0.0145			
	Magnesium (Mg)-Dissolved (mg/L)	11.2	70.5			
	Manganese (Mn)-Dissolved (mg/L)	0.0158	0.297			
	Mercury (Hg)-Dissolved (mg/L)	<0.0000050	<0.0000050			
	Molybdenum (Mo)-Dissolved (mg/L)	0.000351	0.00151			
	Nickel (Ni)-Dissolved (mg/L)	<0.00050	0.0010			
	Phosphorus (P)-Dissolved (mg/L)	<0.050	<0.10 DLA			
	Potassium (K)-Dissolved (mg/L)	0.91	24.5			
	Selenium (Se)-Dissolved (mg/L)	<0.000050	<0.00010 DLA			
	Silicon (Si)-Dissolved (mg/L)	6.58	5.60			
	Silver (Ag)-Dissolved (mg/L)	<0.000010	0.000056			
	Sodium (Na)-Dissolved (mg/L)	3.25	22.1			
	Strontium (Sr)-Dissolved (mg/L)	0.316	1.04			
	Sulfur (S)-Dissolved (mg/L)	11.6	398			
	Thallium (Tl)-Dissolved (mg/L)	<0.000010	0.000171			
	Tin (Sn)-Dissolved (mg/L)	<0.00010	<0.00020 DLA			
	Titanium (Ti)-Dissolved (mg/L)	<0.00030	<0.00060 DLA			
	Uranium (U)-Dissolved (mg/L)	0.000600	0.00178			
	Vanadium (V)-Dissolved (mg/L)	<0.00050	<0.0010 DLA			
	Zinc (Zn)-Dissolved (mg/L)	0.0029	0.131			
	Zirconium (Zr)-Dissolved (mg/L)	<0.00030	<0.00060 DLA			

* 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)
Method Blank	Alkalinity, Total (as CaCO3)	B	L1867796-10, -11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Boron (B)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Iron (Fe)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Potassium (K)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Sulfur (S)-Dissolved	MS-B	L1867796-11, -12, -13, -2, -3, -4, -5, -6, -8, -9
Matrix Spike	Aluminum (Al)-Total	MS-B	L1867796-10, -11, -12, -13, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Total	MS-B	L1867796-10, -11, -12, -13, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Total	MS-B	L1867796-10, -11, -12, -13, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Total	MS-B	L1867796-10, -11, -12, -13, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Manganese (Mn)-Total	MS-B	L1867796-10, -11, -12, -13, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sodium (Na)-Total	MS-B	L1867796-10, -11, -12, -13, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Total	MS-B	L1867796-10, -11, -12, -13, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sulfur (S)-Total	MS-B	L1867796-10, -11, -12, -13, -2, -3, -4, -5, -6, -7, -8, -9

Qualifiers for Individual Parameters Listed:

Qualifier	Description
B	Method Blank exceeds ALS DQO. All associated sample results are at least 5 times greater than blank levels and are considered reliable.
DLA	Detection Limit adjusted for required dilution
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLIS	Detection Limit Adjusted: Insufficient Sample
HTC	Hardness was calculated from Total Ca and/or Mg concentrations and may be biased high (dissolved Ca/Mg results unavailable).
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.

ALK-TITR-VA	Water	Alkalinity Species by Titration	APHA 2320 Alkalinity

This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.

BE-D-L-CCMS-VA	Water	Diss. Be (low) in Water by CRC ICPMS	APHA 3030B/6020A (mod)

Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

BE-T-L-CCMS-VA	Water	Total Be (Low) in Water by CRC ICPMS	EPA 200.2/6020A (mod)

Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Reference Information

BR-L-IC-N-VA	Water	Bromide in Water by IC (Low Level)	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

CL-IC-N-VA	Water	Chloride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

CN-CNO-WT	Water	Cyanate	APHA 4500-CN-L

This analysis is carried out using procedures adapted from APHA method 4500-CN "Cyanide". Cyanate is determined by the Cyanate hydrolysis method using an ammonia selective electrode

CN-SCN-VA	Water	Thiocyanate by Colour	APHA 4500-CN CYANIDE

This analysis is carried out using procedures adapted from APHA Method 4500-CN- M "Thiocyanate" Thiocyanate is determined by the ferric nitrate colourimetric method.

CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002

This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.

CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE

This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.

COLOUR-TRUE-VA	Water	Colour (True) by Spectrometer	BCMOE Colour Single Wavelength

This analysis is carried out using procedures adapted from British Columbia Environmental Manual "Colour- Single Wavelength." Colour (True Colour) is determined by filtering a sample through a 0.45 micron membrane filter followed by analysis of the filtrate using the platinum-cobalt colourimetric method.
Colour measurements can be highly pH dependent, and apply to the pH of the sample as received (at time of testing), without pH adjustment. Concurrent measurement of sample pH is recommended.

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.

F-IC-N-VA	Water	Fluoride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

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.

HG-D-CVAA-VA	Water	Diss. Mercury in Water by CVAAS or CVAFS	APHA 3030B/EPA 1631E (mod)

Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.

HG-T-CVAA-VA	Water	Total Mercury in Water by CVAAS or CVAFS	EPA 1631E (mod)

Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.

HG-TOT-CVAFS-VA	Water	Total Hg in Water by CVAFS LOR=50ppt	EPA 1631E (mod)

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 procedure involves a cold-oxidation of the acidified sample using bromine monochloride prior to reduction of the sample with stannous chloride. Instrumental analysis is by cold vapour atomic fluorescence spectrophotometry or atomic absorption spectrophotometry (EPA Method 245.7).

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 3030B/6020A (mod)

Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Reference Information

MET-T-CCMS-VA	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020A (mod)

Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

NH3-F-VA	Water	Ammonia in Water by Fluorescence	APHA 4500 NH3-NITROGEN (AMMONIA)

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.

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.

NO2-L-IC-N-VA	Water	Nitrite in Water by IC (Low Level)	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

NO3-L-IC-N-VA	Water	Nitrate in Water by IC (Low Level)	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

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.

SO4-IC-N-VA	Water	Sulfate in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

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".
The Total Dissolved Solids result is calculated from measured concentrations of anions and cations in the sample.

TDS-VA	Water	Total Dissolved Solids by Gravimetric	APHA 2540 C - GRAVIMETRIC

This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius.

TSS-VA	Water	Total Suspended Solids by Gravimetric	APHA 2540 D - GRAVIMETRIC

This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, TSS is determined by drying the filter at 104 degrees celsius.
Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.

TURBIDITY-VA	Water	Turbidity by Meter	APHA 2130 Turbidity

This analysis is carried out using procedures adapted from APHA Method 2130 "Turbidity". Turbidity is determined by the nephelometric method.

** 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
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

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.

Acute Toxicity Test Results

Sample L1867796-1 WQ-SEEP,
collected December 5, 2016

Final Report

December 20, 2016

Submitted to: **ALS Environmental**
Burnaby, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			Receipt temperature
	Collected	Received	Rainbow trout test initiation	
L1867796-1 WQ-SEEP	05-Dec-16 at N/A	08-Dec-16 at 1320h	09-Dec-16 at 0800h	5.8°C

N/A = Not available

TESTS

- Rainbow trout 96-h LC50 test

RESULTS

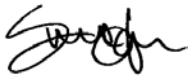
Toxicity test results

Sample ID	96-h LC50 (% v/v)
L1867796-1 WQ-SEEP	>100

QA/QC

QA/QC summary	Rainbow trout
Reference toxicant LC50 (95% CI)	39.4 (32.2 – 48.4) µg/L Zn[1]
Reference toxicant historical mean (2 SD range)	58.3 (21.0 – 161.7) µg/L Zn
Reference toxicant CV	66%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

[1] Test date: December 2, 2016



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist

Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) LC50 test.

Test species	*Oncorhynchus mykiss*
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	Five concentrations, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS Version 1.8.7
Test endpoints	Survival (96-hour LC50)
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as $ZnCl_2$)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: ALS

Start Date/Time: Dec 9 /16 @ 0800h

Work Order No.: 161336

Test Species: *Oncorhynchus mykiss*

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Sample Information:

Sample ID: L1867796-1-WQ-SEEP
Sample Date: Dec 5 /16
Date Received: Dec 8 /16
Sample Volume: 2 X 20 L
Other: /

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L $CaCO_3$): 9
Alkalinity (mg/L $CaCO_3$): 5

Test Organism Information:

Batch No.: 110916(B)
Source: Vancouver Island Trout Hatchery
No. Fish/Volume (L): 10/12L
Loading Density (g/L): 0.32
Mean Length ± SD (mm): 35 ~~38~~ ± 2 Range: 33 - 39
Mean Weight ± SD (g): 0.38 ± 0.05 Range: 0.30 - 0.46

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn56
Stock Solution ID: 16Zn02
Date Initiated: Dec 2/16
96-h LC50 (95% CL): 39.4 (32.2 - 48.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 58.3 (21.0 - 161.7) mg/L Zn
Reference Toxicant CV (%): 66%

Test Results: The 96 h LC50 is estimated to be >100% (v/v)

Reviewed by: [signature]

Date reviewed: Dec 21, 2016

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: ALS
Sample I.D. L1867796-1-WQ-SEEP
W.O. # 16,336
RBT Batch #: 110916B
Date Collected/Time: Dec 5/16 @ Not available
Date Setup/Time: Dec 9/16 @ 0900h
Sample Setup By: EC

Number Fish/Volume: 10/12 L
7-d % Mortality: 1.6
Total Pre-aeration Time (mins): 30
Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER #2 **D.O. meter:** 2
Cond./Salinity: 2 **pH meter:** 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0		14.0
D.O. (mg/L)	8.7		7.0
pH	6.7		6.8
Cond. (µS/cm)	1569		1568
Salinity (ppt)	0.8		0.8

Concentration	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ctl				10	10	10	10	14.0	15.0	15.0	15.0	14.5	9.9	9.8	9.7	9.9	9.7	6.8	6.8	6.8	7.1	7.0	25	31
6.25				10	10	9	9	14.0	15.0	15.0	15.0	14.5	9.9	9.9	9.8	9.8	9.8	6.8	6.9	7.1	7.1	7.3	151	155
12.5				10	10	10	10	14.0	15.0	15.0	15.0	14.5	9.8	9.8	9.7	9.8	9.8	6.7	7.1	7.3	7.3	7.5	299	307
25				10	10	10	10	14.0	15.0	15.0	15.0	14.5	9.9	9.9	9.7	9.9	9.8	6.7	7.2	7.5	7.6	7.8	489	491
50				10	10	10	9	14.0	15.0	15.0	15.0	14.5	9.9	9.9	9.8	9.9	9.9	6.8	7.5	7.7	7.9	8.1	863	862
100				10	10	8	7	14.0	15.0	15.0	15.0	14.5	9.0	9.8	9.8	9.8	9.8	6.8	7.7	8.1	8.2	8.3	1569	1537
Initials				AS	AS	YW	YW	EC	AS	AS	YW	YW	EC	AS	AS	YW	YW	EC	AS	AS	YW	YW	EC	YW

Sample Description/Comments: Orange, turbid, No particulates, No odour

Fish Description at 96 h: All surviving fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations:

Reviewed by: [signature] Date Reviewed: Dec. 21, 2016

APPENDIX C – Chain-of-custody form

ALS Environmental

L1867796

VANCOUVER

Subcontract Request Form

Subcontract To:

NAUTILUS ENVIRONMENTAL
8664 COMMERCE COURT
BURNABY,BC V5A 4N7

NOTES: Please reference on final report and invoice: PO# *L1867796*
ALS requires QC data to be provided with your final results.

Please see enclosed 1 sample(s) in 2 Container(s)

SAMPLE NUMBER	ANALYTICAL REQUIRED	DATE SAMPLED / DUE DATE	Priority Flag
L1867796-1 WQ-SEEP		**12/5/2016**	
	Trout Bioassay LC50 (96 Hour) - Nautilus (TROUT-LC50-96HR-NL 1)	12/16/2016	

Subcontract Info Contact: Walter Lin (604) 253-4188

Analysis and reporting info contact: Can Dang
8081 LOUGHEED HWY
SUITE 100
BURNABY,BC V5A 1W9
Phone: (604) 253-4188 Email: can.dang@alsglobal.com

Please email confirmation of receipt to: can.dang@alsglobal.com

Shipped By: PAUL. Date Shipped: Dec 8/2016

Received By: Nautilus Date Received: Dec 08/16 @ 13:20

Verified By: MY - Nair Yamamoto Date Verified:

Temperature: 5.8°C

Sample Integrity Issues: 2x20L

WO # 161336 - Rbt LC50

END OF REPORT

Whitehorse Receive

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

L1867796-COFC

COC Number:

Page 1 of 4

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:	Lyndsay Doetzel	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 ldoetzel@edynamics.com	Specify Date Required for E2,E or P:
		Email 2 erik.pit@gov.yk.ca	
		Email 3 Emilie.Hamm@gov.yk.ca	

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

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:	Q55559	Approver ID:	Cost Center:
Job #:	MOUNT NANSEN 16Y0089	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): [redacted]

ALS Contact: ~~Sean Sluggett~~ B. Makedki Sampler: JM/GR.

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	Rainbow Trout LC50	Number of Containers
[redacted]	WQ-SEEP	05-Dec-16	15:15	Water	R	2
[redacted]						
[redacted]						
[redacted]						
[redacted]						
[redacted]						
[redacted]						
[redacted]						
[redacted]						
[redacted]						
[redacted]						

RUSH

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	
Are samples for human drinking water use? ☐ Yes ☐ No	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | Ice packs ☑ Yes ☐ No | Cooling Initiated ☐

SIF Observations ☐ Yes ☐ No | Custody seal intact ☐ Yes ☐ No

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
3.6	[redacted]	[redacted]	6	18	[redacted]

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Joel MacFabe	Date: 07 Dec	Time: 10:40	Received by: [redacted]	Date: Dec-07-16	Time: 10:51AM	Received by: JC	Date: 8 Dec 16	Time: 12:05 PM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

Short Holding Time

Rush Processing

Chain of Custody (COC) / Analytical Request Form

Toll Free: 1 800 668 9878

L1867796-COFC

COC Number:

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:	Lyndsay Doetzel	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 Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	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
Phone:	867-393-4882	Email 1 or Fax: ldoetzel@edynamics.com	Specify Date Required for E2,E or P:
		Email 2: Emilie.Hamm@gov.yk.ca	
		Email 3: erik.pit@gov.yk.ca	

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

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:	Q55559	Approver ID:	Cost Center:
Job #:	MOUNT NANSEN 16-Y-0089	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): [redacted]

ALS Contact: ~~Craig Fleherty~~ B. Makelki **Sampler:** JM/GR

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-PCT-VA,EC-PCT-VA,PH-PCT-VA	ANIONS-ALL-IC-WR,TSS-MAN-WR	CN-WAD-CFA-VA,CN-T-CFA-VA	CN-CNO-WT	CN-SCN-VA	NH3-F-VA	MET-T-BCMDG-VA	MET-D-BCMDG-VA	IONBALANC-VA, TDS-CALC-VA					Number of Containers
	WQ-VC-UMN	06-Dec-16	12:45	Water	R	R	R	R	R	R	R	R	R					9
	WQ-DC-DX+105	05-Dec-16	16:40	Water	R	R	R	R	R	R	R	R	R					9
	WQ-SEEP	05-Dec-16	15:15	Water	R	R	R	R	R	R	R	R	R					9
	WQ-DC-U	05-Dec-16	14:50	Water	R	R	R	R	R	R	R	R	R					9
	WQ-TP-C	05-Dec-16	16:00	Water	R	R	R	R	R	R	R	R	R					9
		~~-Dec-16~~		~~Water~~	R	R	R	R	R	R	R	R	R					9
		~~-Dec-16~~		~~Water~~	R	R	R	R	R	R	R	R	R					9

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	
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		
11.9			4	3	

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Jed Mackie	Date: 07 Dec.	Time: 10:40	Received by: Jeremy Dunn	Date: Dec-07-16	Time: 10:51AM	Received by: JC	Date: 8 Dec 16	Time: 12:05 pm

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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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.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Drinking Water

ALS Environmental

www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

L1867796-COFC

COC Number:

Page 3 of 4

Report To

Company:	EDI
Contact:	Lyndsay Doetzel
Address:	2195 - 2nd Avenue Whitehorse, YT Y1A 3T8
Phone:	867-393-4882

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Quality Control (QC) Report with Report ☐ Yes ☐ No

☐ Criteria on Report - provide details below if box checked

Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: ldoetzel@edynamics.com

Email 2: Emilie.Hamm@gov.yk.ca

Email 3: erik.pit@gov.yk.ca

Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)

- R ☑ Regular (Standard TAT if 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: ldoetzel@edynamics.com

Project Information

ALS Quote #: Q55556

Job #: MOUNT NANSEN 16-Y-0089

PO / AFE:

LSD:

Oil and Gas Required Fields (client use)

Approver ID: [redacted] Cost Center: [redacted]

GL Account: [redacted] Routing Code: [redacted]

Activity Code: [redacted]

Location: [redacted]

ALS Lab Work Order # (lab use only) [redacted]

ALS Contact: ~~Craig Flaherty~~ B. Makelki

Sampler: JM/GR

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	FULL-TOT-DW-WR	Number of Containers
[redacted]	WQ-PW	06-Dec-16	15:55	Water	R	3

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ Yes ☐ No

Are samples for human drinking water use? ☑ Yes ☐ No

Special Instructions / Specify Criteria to add on report (client Use)

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: 3.0

FINAL COOLER TEMPERATURES °C: 4, 3

SHIPMENT RELEASE (client use)

Released by: Joel MacFabe Date: 07 Dec Time: 10:40

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: [redacted] Date: [redacted] Time: [redacted]

FINAL SHIPMENT RECEPTION (lab use only)

Received by: [redacted] Date: [redacted] Time: [redacted]

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

NA FM 0326e v08 Front/04 January 2014

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Short Holding Time

Rush Processing

dy (COC) / Analytical uest Form

Free: 1 800 668 9878

L1867796-COFC

COC Number:

Page 4 of 4

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:	Lyndsay Doetzel	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	☐ 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
	Whitehorse, YT Y1A 3T8	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	ldoetzel@edynamics.com	Specify Date Required for E2,E or P:
		Email 2	Emilie.Hamm@gov.yk.ca	
		Email 3	erik.pit@gov.yk.ca	

Invoice To	Same as Report To ☑ Yes ☑ No	Invoice Distribution	
	Copy of Invoice with Report ☑ Yes ☐ No	Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Company:	EDI	Email 1 or Fax	sjenner@edynamics.com
Contact:	S Jenner	Email 2	ldoetzel@edynamics.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:	Q55559	Approver ID:	Cost Center:
Job #:	MOUNT NANSEN 16-Y-0089	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): [redacted]

ALS Contact: ~~Craig Flaherty~~ E. Makelki **Sampler:** JM/GR

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-PCT-VA,EC-PCT-VA,PH-PCT-VA	ANIONS-ALL-IC-WR,TSS-MAN-WR	CN-WAD-CFA-VA,CN-T-CFA-VA	CN-CNO-WT	CN-SCN-VA	NH3-F-VA	MET-T-BCMDG-VA	MET-D-BCMDG-VA	IONBALANC-VA, TDS-CALC-VA	Number of Containers
							P	P	P	P	P	F/P		
[redacted]	WQ-VC-DBC	06-Dec-16	10:25	Water	R	R	R	R	R	R	R	R	R	9
[redacted]	WQ-Field blank	06-Dec-16	15:36	Water	R	R	R	R	R	R	R	R	R	9
[redacted]	WQ-TRAVEL BLANK	06-Dec-16	-	Water	R	R	R	R	R	R	R	R	R	9
[redacted]	WQ-VC-U	06-Dec-16	10:45	Water	R	R	R	R	R	R	R	R	R	9
[redacted]	WQ-VC-R+150	05-Dec-16	13:05	Water	R	R	R	R	R	R	R	R	R	9
[redacted]	WQ-TP	05-Dec-16	15:50	Water	R	R	R	R	R	R	R	R	R	9
[redacted]		~~7-Dec-16~~	~~-~~	Water	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~9~~
[redacted]														
[redacted]														
[redacted]														
[redacted]														
[redacted]														

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	
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		
3.0	[redacted]		4	3	

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Joel MacFabe	Date: 07 Dec.	Time: 10:46	Received by: [redacted]	Date: Dec 07-16	Time: 16:51 hr	Received by: JC	Date: 8 Dec 16	Time: 12:05

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

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.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.