

REPORTED TO Allterra Construction
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WORK ORDER 6110806

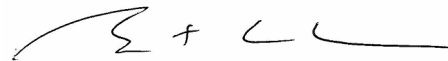
PO NUMBER P15-06 SIRM
PROJECT SIRM 460 Stebbings
PROJECT INFO

RECEIVED / TEMP 2016-11-10 10:00 / 8°C
REPORTED 2016-11-18
COC NUMBER B34099

General Comments:

CARO Analytical Services employs methods which are conducted according to procedures accepted by appropriate regulatory agencies, and/or are conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts, except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the Chain of Custody or Sample Requisition document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.



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Analysis Description	Method Reference	Technique	Location
Alkalinity in Water	APHA 2320 B*	Titration with H2SO4	Kelowna
Anions by IC in Water	APHA 4110 B	Ion Chromatography with Chemical Suppression of Eluent Conductivity	Kelowna
Chromium, Hexavalent (Total) in Water	APHA 3500-Cr B	Colorimetry	Richmond
Colour, True in Water	APHA 2120 C	Spectrophotometry (456 nm)	Kelowna
Conductivity in Water	APHA 2510 B	Conductivity Meter	Kelowna
Dissolved Metals by ICPMS in Water	APHA 3030 B / APHA 3125 B	0.45 µm Filtration / Inductively Coupled Plasma Mass Spectrometry (ICP-MS)	Richmond
EPH in Water	EPA 3511* / BCMOE EPHw	Hexane MicroExtraction (Base/Neutral) / Gas Chromatography (GC-FID)	Richmond
Glycols in Water	EPA 8015B*	Gas Chromatography (GC-FID)	Richmond
Hardness (as CaCO3) in Water	APHA 2340 B	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	N/A
Hardness (as CaCO3) in Water	APHA 2340 B*	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Estimated)	N/A
HEPHw in Water	BCMOE LEPH/HEPH	Calculation	N/A
LEPHw in Water	BCMOE LEPH/HEPH	Calculation	N/A
Mercury, dissolved by CVAFS in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	Richmond
Mercury, total by CVAFS in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	Richmond
Nitrate+Nitrite by Colorimetry in Water	APHA 4500-NO3- F	Automated Colorimetry (Cadmium Reduction)	Kelowna
Nitrite by Colorimetry in Water	APHA 4500-NO2 B	Colorimetry	Richmond
pH in Water	APHA 4500-H+ B	Electrometry	Kelowna
Polycyclic Aromatic Hydrocarbons in Water	EPA 3511* / EPA 8270D	Hexane MicroExtraction (Base/Neutral) / GC-MS (SIM)	Richmond
Solids, Total Dissolved in Water	APHA 2540 C*	Gravimetry (Dried at 103-105C)	Kelowna
Solids, Total Suspended in Water	APHA 2540 D*	Gravimetry (Dried at 103-105C)	Kelowna
Total Metals by ICPMS in Water	APHA 3030E* / APHA 3125 B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma Mass Spectrometry (ICP-MS)	Richmond
Turbidity in Water	APHA 2130 B	Nephelometry	Richmond
Volatile Organic Compounds in Water	EPA 5030B / EPA 8260B	Purge&Trap / GC-MS (SIM)	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Method Reference Descriptions:

APHA Standard Methods for the Examination of Water and Wastewater, 22nd Edition, American Public Health Association/American Water Works Association/Water Environment Federation

BCMOE British Columbia Environmental Laboratory Manual, 2013, British Columbia Ministry of Environment

EPA United States Environmental Protection Agency Test Methods

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Glossary of Terms:

MRL Method Reporting Limit
< Less than the Reported Detection Limit (RDL) - the RDL may be higher than the MRL due to various factors such as dilutions, limited sample volume, high moisture, or interferences
CU Colour Units (referenced against a platinum cobalt standard)
mg/L Milligrams per litre
NTU Nephelometric Turbidity Units
pH units pH < 7 = acidic, pH > 7 = basic
µg/L Micrograms per litre
µS/cm Microsiemens per centimetre

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Analyte	Result / Estimate of Recovery	Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: Weir (6110806-01) [Water] Sampled: 2016-11-09 09:05

Anions

Chloride	47.0	± 2.2	0.10	mg/L	N/A	2016-11-15	
Fluoride	< 0.10		0.10	mg/L	N/A	2016-11-15	
Nitrate+Nitrite (as N)	0.324	± 0.009	0.005	mg/L	N/A	2016-11-15	
Nitrite (as N)	< 0.005		0.005	mg/L	N/A	2016-11-10	
Sulfate	66.8	± 7.9	1.0	mg/L	N/A	2016-11-15	

General Parameters

Alkalinity, Total (as CaCO3)	52	± 3	1	mg/L	N/A	2016-11-15	
Alkalinity, Phenolphthalein (as CaCO3)	< 1		1	mg/L	N/A	2016-11-15	
Alkalinity, Bicarbonate (as CaCO3)	52	± 3	1	mg/L	N/A	2016-11-15	
Alkalinity, Carbonate (as CaCO3)	< 1		1	mg/L	N/A	2016-11-15	
Alkalinity, Hydroxide (as CaCO3)	< 1		1	mg/L	N/A	2016-11-15	
Chromium, Hexavalent	< 0.001		0.001	mg/L	N/A	2016-11-16	
Colour, True	< 5		5	CU	N/A	2016-11-10	
Conductivity (EC)	424	± 7	2	µS/cm	N/A	2016-11-15	
pH	7.45	± 0.02	0.01	pH units	N/A	2016-11-15	HT2
Solids, Total Dissolved	260	± 25	10	mg/L	N/A	2016-11-14	
Solids, Total Suspended	21	± 2	2	mg/L	N/A	2016-11-14	
Turbidity	46.8	± 5.9	0.10	NTU	N/A	2016-11-10	

Calculated Parameters

Chromium, Trivalent	0.005		0.001	mg/L	N/A	N/A	
Hardness, Total (as CaCO3)	136		0.50	mg/L	N/A	N/A	
Nitrate (as N)	0.324		0.015	mg/L	N/A	N/A	

Dissolved Metals

Aluminum, dissolved	0.011	± 0.003	0.005	mg/L	N/A	2016-11-17	
Antimony, dissolved	0.0002	± 0.0001	0.0001	mg/L	N/A	2016-11-17	
Arsenic, dissolved	< 0.0005		0.0005	mg/L	N/A	2016-11-17	
Barium, dissolved	0.009	± 0.001	0.005	mg/L	N/A	2016-11-17	
Beryllium, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-17	
Bismuth, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-17	
Boron, dissolved	0.026	± 0.005	0.004	mg/L	N/A	2016-11-17	
Cadmium, dissolved	< 0.00001		0.00001	mg/L	N/A	2016-11-17	
Calcium, dissolved	42.1	± 7.2	0.2	mg/L	N/A	2016-11-17	
Chromium, dissolved	< 0.0005		0.0005	mg/L	N/A	2016-11-17	
Cobalt, dissolved	< 0.00005		0.00005	mg/L	N/A	2016-11-17	
Copper, dissolved	0.0007	± 0.0003	0.0002	mg/L	N/A	2016-11-17	
Iron, dissolved	< 0.010		0.010	mg/L	N/A	2016-11-17	
Lead, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-17	
Lithium, dissolved	0.0002	± 0.0001	0.0001	mg/L	N/A	2016-11-17	
Magnesium, dissolved	7.41	± 1.33	0.01	mg/L	N/A	2016-11-17	
Manganese, dissolved	0.0025	± 0.0004	0.0002	mg/L	N/A	2016-11-17	
Mercury, dissolved	< 0.00002		0.00002	mg/L	2016-11-10	2016-11-10	
Molybdenum, dissolved	0.0008	± 0.0001	0.0001	mg/L	N/A	2016-11-17	
Nickel, dissolved	0.0005	± 0.0002	0.0002	mg/L	N/A	2016-11-17	

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Sample ID: Weir (6110806-01) [Water] Sampled: 2016-11-09 09:05, Continued

Dissolved Metals, Continued

Phosphorus, dissolved	< 0.02		0.02	mg/L	N/A	2016-11-17	
Potassium, dissolved	1.45	± 0.23	0.02	mg/L	N/A	2016-11-17	
Selenium, dissolved	< 0.0005		0.0005	mg/L	N/A	2016-11-17	
Silicon, dissolved	3.1	± 1.6	0.5	mg/L	N/A	2016-11-17	
Silver, dissolved	< 0.00005		0.00005	mg/L	N/A	2016-11-17	
Sodium, dissolved	27.8	± 4.8	0.02	mg/L	N/A	2016-11-17	
Strontium, dissolved	0.159	± 0.018	0.001	mg/L	N/A	2016-11-17	
Sulfur, dissolved	24	± 299	1	mg/L	N/A	2016-11-17	
Tellurium, dissolved	< 0.0002		0.0002	mg/L	N/A	2016-11-17	
Thallium, dissolved	< 0.00002		0.00002	mg/L	N/A	2016-11-17	
Thorium, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-17	
Tin, dissolved	< 0.0002		0.0002	mg/L	N/A	2016-11-17	
Titanium, dissolved	< 0.005		0.005	mg/L	N/A	2016-11-17	
Uranium, dissolved	0.00050	± 0.00007	0.00002	mg/L	N/A	2016-11-17	
Vanadium, dissolved	< 0.001		0.001	mg/L	N/A	2016-11-17	
Zinc, dissolved	< 0.004		0.004	mg/L	N/A	2016-11-17	
Zirconium, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-17	

Total Metals

Aluminum, total	2.07	± 0.38	0.005	mg/L	2016-11-16	2016-11-17	
Antimony, total	0.0002	± 0.0001	0.0001	mg/L	2016-11-16	2016-11-17	
Arsenic, total	0.0006	± 0.0001	0.0005	mg/L	2016-11-16	2016-11-17	
Barium, total	0.020	± 0.003	0.005	mg/L	2016-11-16	2016-11-17	
Beryllium, total	< 0.0001		0.0001	mg/L	2016-11-16	2016-11-17	
Bismuth, total	< 0.0001		0.0001	mg/L	2016-11-16	2016-11-17	
Boron, total	0.028	± 0.006	0.004	mg/L	2016-11-16	2016-11-17	
Cadmium, total	0.00001	± 0.00002	0.00001	mg/L	2016-11-16	2016-11-17	
Calcium, total	48.4	± 5.9	0.2	mg/L	2016-11-16	2016-11-17	
Chromium, total	0.0049	± 0.0007	0.0005	mg/L	2016-11-16	2016-11-17	
Cobalt, total	0.00095	± 0.00010	0.00005	mg/L	2016-11-16	2016-11-17	
Copper, total	0.0055	± 0.0006	0.0002	mg/L	2016-11-16	2016-11-17	
Iron, total	2.21	± 0.43	0.01	mg/L	2016-11-16	2016-11-17	
Lead, total	0.0011	± 0.0001	0.0001	mg/L	2016-11-16	2016-11-17	
Lithium, total	0.0010	± 0.0002	0.0001	mg/L	2016-11-16	2016-11-17	
Magnesium, total	8.84	± 1.35	0.01	mg/L	2016-11-16	2016-11-17	
Manganese, total	0.0366	± 0.0033	0.0002	mg/L	2016-11-16	2016-11-17	
Mercury, total	< 0.00002		0.00002	mg/L	2016-11-10	2016-11-10	
Molybdenum, total	0.0009	± 0.0001	0.0001	mg/L	2016-11-16	2016-11-17	
Nickel, total	0.0038	± 0.0004	0.0002	mg/L	2016-11-16	2016-11-17	
Phosphorus, total	0.05	± 0.05	0.02	mg/L	2016-11-16	2016-11-17	
Potassium, total	1.85	± 0.21	0.02	mg/L	2016-11-16	2016-11-17	
Selenium, total	< 0.0005		0.0005	mg/L	2016-11-16	2016-11-17	
Silicon, total	7.0	± 2.6	0.5	mg/L	2016-11-16	2016-11-17	
Silver, total	< 0.00005		0.00005	mg/L	2016-11-16	2016-11-17	
Sodium, total	31.1	± 4.6	0.02	mg/L	2016-11-16	2016-11-17	
Strontium, total	0.177	± 0.016	0.001	mg/L	2016-11-16	2016-11-17	

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Sample ID: Weir (6110806-01) [Water] Sampled: 2016-11-09 09:05, Continued

Total Metals, Continued

Sulfur, total	26	± 250	1	mg/L	2016-11-16	2016-11-17	
Tellurium, total	< 0.0002		0.0002	mg/L	2016-11-16	2016-11-17	
Thallium, total	< 0.00002		0.00002	mg/L	2016-11-16	2016-11-17	
Thorium, total	< 0.0001		0.0001	mg/L	2016-11-16	2016-11-17	
Tin, total	< 0.0002		0.0002	mg/L	2016-11-16	2016-11-17	
Titanium, total	0.106	± 0.014	0.005	mg/L	2016-11-16	2016-11-17	
Uranium, total	0.00061	± 0.00004	0.00002	mg/L	2016-11-16	2016-11-17	
Vanadium, total	0.007	± 0.001	0.001	mg/L	2016-11-16	2016-11-17	
Zinc, total	0.008	± 0.003	0.004	mg/L	2016-11-16	2016-11-17	
Zirconium, total	0.0004	± 0.0001	0.0001	mg/L	2016-11-16	2016-11-17	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250		250	µg/L	2016-11-14	2016-11-15	
EPHw19-32	< 250		250	µg/L	2016-11-14	2016-11-15	
LEPHw	< 250		250	µg/L	N/A	N/A	
HEPHw	< 250		250	µg/L	N/A	N/A	
Surrogate: 2-Methylnonane	82		60-140	%	2016-11-14	2016-11-15	

Glycols

Propylene glycol	< 5		5	mg/L	N/A	2016-11-15	
Ethylene glycol	< 5		5	mg/L	N/A	2016-11-15	
Diethylene glycol	< 5		5	mg/L	N/A	2016-11-15	
Triethylene glycol	< 5		5	mg/L	N/A	2016-11-15	
Surrogate: Tetramethylene Glycol	101		66-125	%	N/A	2016-11-15	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.05		0.05	µg/L	2016-11-14	2016-11-16	
Acenaphthylene	< 0.20		0.20	µg/L	2016-11-14	2016-11-16	
Acridine	< 0.10		0.10	µg/L	2016-11-14	2016-11-16	
Anthracene	< 0.01		0.01	µg/L	2016-11-14	2016-11-16	
Benz (a) anthracene	< 0.01		0.01	µg/L	2016-11-14	2016-11-16	
Benzo (a) pyrene	< 0.01		0.01	µg/L	2016-11-14	2016-11-16	
Benzo (b) fluoranthene	< 0.05		0.05	µg/L	2016-11-14	2016-11-16	
Benzo (g,h,i) perylene	< 0.05		0.05	µg/L	2016-11-14	2016-11-16	
Benzo (k) fluoranthene	< 0.05		0.05	µg/L	2016-11-14	2016-11-16	
Chrysene	< 0.05		0.05	µg/L	2016-11-14	2016-11-16	
Dibenz (a,h) anthracene	< 0.05		0.05	µg/L	2016-11-14	2016-11-16	
Fluoranthene	< 0.03		0.03	µg/L	2016-11-14	2016-11-16	
Fluorene	< 0.05		0.05	µg/L	2016-11-14	2016-11-16	
Indeno (1,2,3-cd) pyrene	< 0.05		0.05	µg/L	2016-11-14	2016-11-16	
Naphthalene	< 0.20		0.20	µg/L	2016-11-14	2016-11-16	
Phenanthrene	< 0.10		0.10	µg/L	2016-11-14	2016-11-16	
Pyrene	< 0.02		0.02	µg/L	2016-11-14	2016-11-16	
Quinoline	< 0.10		0.10	µg/L	2016-11-14	2016-11-16	
Surrogate: Acridine-d9	55		60-130	%	2016-11-14	2016-11-16	S02
Surrogate: Naphthalene-d8	86		60-130	%	2016-11-14	2016-11-16	
Surrogate: Perylene-d12	106		60-130	%	2016-11-14	2016-11-16	

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Sample ID: Weir (6110806-01) [Water] Sampled: 2016-11-09 09:05, Continued

Volatile Organic Compounds (VOC)

Benzene	< 0.5		0.5	µg/L	N/A	2016-11-12	
Bromodichloromethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
Bromoform	< 1.0		1.0	µg/L	N/A	2016-11-12	
Bromomethane	< 2.0		2.0	µg/L	N/A	2016-11-12	
Carbon tetrachloride	< 1.0		1.0	µg/L	N/A	2016-11-12	
Chlorobenzene	< 1.0		1.0	µg/L	N/A	2016-11-12	
Chloroethane	< 2.0		2.0	µg/L	N/A	2016-11-12	
Chloroform	< 1.0		1.0	µg/L	N/A	2016-11-12	
Chloromethane	< 2.0		2.0	µg/L	N/A	2016-11-12	
Dibromochloromethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,2-Dibromoethane	< 0.3		0.3	µg/L	N/A	2016-11-12	
Dibromomethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,2-Dichlorobenzene	< 0.5		0.5	µg/L	N/A	2016-11-12	
1,3-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,4-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,1-Dichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,2-Dichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,1-Dichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-12	
cis-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-12	
trans-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,2-Dichloropropane	< 1.0		1.0	µg/L	N/A	2016-11-12	
cis-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2016-11-12	
trans-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2016-11-12	
Ethylbenzene	< 1.0		1.0	µg/L	N/A	2016-11-12	
Methyl tert-butyl ether	< 1.0		1.0	µg/L	N/A	2016-11-12	
Methylene chloride	< 3.0		3.0	µg/L	N/A	2016-11-12	
Styrene	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,1,1,2-Tetrachloroethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,1,2,2-Tetrachloroethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
Tetrachloroethene	< 1.0		1.0	µg/L	N/A	2016-11-12	
Toluene	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,1,1-Trichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,1,2-Trichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
Trichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-12	
Trichlorofluoromethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
Vinyl chloride	< 2.0		2.0	µg/L	N/A	2016-11-12	
Xylenes (total)	< 2.0		2.0	µg/L	N/A	2016-11-12	
Surrogate: Toluene-d8	102		70-130	%	N/A	2016-11-12	
Surrogate: 4-Bromofluorobenzene	102		70-130	%	N/A	2016-11-12	
Surrogate: 1,4-Dichlorobenzene-d4	113		70-130	%	N/A	2016-11-12	

Sample ID: SW-1 (6110806-02) [Water] Sampled: 2016-11-09 09:20

Anions

Chloride	55.6 ± 2.5		0.10	mg/L	N/A	2016-11-15	
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Sample ID: SW-1 (6110806-02) [Water] Sampled: 2016-11-09 09:20, Continued

Anions, Continued

Fluoride	< 0.10		0.10	mg/L	N/A	2016-11-15	
Nitrate+Nitrite (as N)	1.07	± 0.03	0.005	mg/L	N/A	2016-11-15	
Nitrite (as N)	< 0.005		0.005	mg/L	N/A	2016-11-10	
Sulfate	108	± 13	1.0	mg/L	N/A	2016-11-15	

General Parameters

Alkalinity, Total (as CaCO3)	79	± 4	1	mg/L	N/A	2016-11-15	
Alkalinity, Phenolphthalein (as CaCO3)	< 1		1	mg/L	N/A	2016-11-15	
Alkalinity, Bicarbonate (as CaCO3)	79	± 4	1	mg/L	N/A	2016-11-15	
Alkalinity, Carbonate (as CaCO3)	< 1		1	mg/L	N/A	2016-11-15	
Alkalinity, Hydroxide (as CaCO3)	< 1		1	mg/L	N/A	2016-11-15	
Colour, True	< 5		5	CU	N/A	2016-11-10	
Conductivity (EC)	580	± 9	2	µS/cm	N/A	2016-11-15	
pH	7.69	± 0.02	0.01	pH units	N/A	2016-11-15	HT2
Solids, Total Dissolved	368	± 34	10	mg/L	N/A	2016-11-14	
Solids, Total Suspended	2	± 1	2	mg/L	N/A	2016-11-14	
Turbidity	4.39	± 0.55	0.10	NTU	N/A	2016-11-10	

Calculated Parameters

Hardness, Total (as CaCO3)	201		0.50	mg/L	N/A	N/A	
Nitrate (as N)	1.07		0.055	mg/L	N/A	N/A	

Dissolved Metals

Aluminum, dissolved	< 0.005		0.005	mg/L	N/A	2016-11-17	
Antimony, dissolved	0.0003	± 0.0001	0.0001	mg/L	N/A	2016-11-17	
Arsenic, dissolved	< 0.0005		0.0005	mg/L	N/A	2016-11-17	
Barium, dissolved	0.016	± 0.002	0.005	mg/L	N/A	2016-11-17	
Beryllium, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-17	
Bismuth, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-17	
Boron, dissolved	0.029	± 0.006	0.004	mg/L	N/A	2016-11-17	
Cadmium, dissolved	< 0.00001		0.00001	mg/L	N/A	2016-11-17	
Calcium, dissolved	62.0	± 10.6	0.2	mg/L	N/A	2016-11-17	
Chromium, dissolved	< 0.0005		0.0005	mg/L	N/A	2016-11-17	
Cobalt, dissolved	0.00006	± 0.00001	0.00005	mg/L	N/A	2016-11-17	
Copper, dissolved	0.0013	± 0.0004	0.0002	mg/L	N/A	2016-11-17	
Iron, dissolved	< 0.010		0.010	mg/L	N/A	2016-11-17	
Lead, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-17	
Lithium, dissolved	0.0002	± 0.0001	0.0001	mg/L	N/A	2016-11-17	
Magnesium, dissolved	11.3	± 2.0	0.01	mg/L	N/A	2016-11-17	
Manganese, dissolved	0.0017	± 0.0003	0.0002	mg/L	N/A	2016-11-17	
Mercury, dissolved	< 0.00002		0.00002	mg/L	2016-11-10	2016-11-10	
Molybdenum, dissolved	0.0015	± 0.0001	0.0001	mg/L	N/A	2016-11-17	
Nickel, dissolved	0.0007	± 0.0002	0.0002	mg/L	N/A	2016-11-17	
Phosphorus, dissolved	< 0.02		0.02	mg/L	N/A	2016-11-17	
Potassium, dissolved	1.80	± 0.28	0.02	mg/L	N/A	2016-11-17	
Selenium, dissolved	< 0.0005		0.0005	mg/L	N/A	2016-11-17	

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Sample ID: SW-1 (6110806-02) [Water] Sampled: 2016-11-09 09:20, Continued

Dissolved Metals, Continued

Silicon, dissolved	4.7	± 2.3	0.5	mg/L	N/A	2016-11-17	
Silver, dissolved	< 0.00005		0.00005	mg/L	N/A	2016-11-17	
Sodium, dissolved	31.8	± 5.4	0.02	mg/L	N/A	2016-11-17	
Strontium, dissolved	0.233	± 0.026	0.001	mg/L	N/A	2016-11-17	
Sulfur, dissolved	38	± 483	1	mg/L	N/A	2016-11-17	
Tellurium, dissolved	< 0.0002		0.0002	mg/L	N/A	2016-11-17	
Thallium, dissolved	< 0.00002		0.00002	mg/L	N/A	2016-11-17	
Thorium, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-17	
Tin, dissolved	< 0.0002		0.0002	mg/L	N/A	2016-11-17	
Titanium, dissolved	< 0.005		0.005	mg/L	N/A	2016-11-17	
Uranium, dissolved	0.00074	± 0.00011	0.00002	mg/L	N/A	2016-11-17	
Vanadium, dissolved	< 0.001		0.001	mg/L	N/A	2016-11-17	
Zinc, dissolved	< 0.004		0.004	mg/L	N/A	2016-11-17	
Zirconium, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-17	

Total Metals

Aluminum, total	0.134	± 0.025	0.005	mg/L	2016-11-16	2016-11-17	
Antimony, total	0.0003	± 0.0001	0.0001	mg/L	2016-11-16	2016-11-17	
Arsenic, total	< 0.0005		0.0005	mg/L	2016-11-16	2016-11-17	
Barium, total	0.018	± 0.003	0.005	mg/L	2016-11-16	2016-11-17	
Beryllium, total	< 0.0001		0.0001	mg/L	2016-11-16	2016-11-17	
Bismuth, total	< 0.0001		0.0001	mg/L	2016-11-16	2016-11-17	
Boron, total	0.033	± 0.007	0.004	mg/L	2016-11-16	2016-11-17	
Cadmium, total	< 0.00001		0.00001	mg/L	2016-11-16	2016-11-17	
Calcium, total	71.1	± 8.7	0.2	mg/L	2016-11-16	2016-11-17	
Chromium, total	0.0016	± 0.0002	0.0005	mg/L	2016-11-16	2016-11-17	
Cobalt, total	0.00021	± 0.00002	0.00005	mg/L	2016-11-16	2016-11-17	
Copper, total	0.0024	± 0.0003	0.0002	mg/L	2016-11-16	2016-11-17	
Iron, total	0.19	± 0.04	0.01	mg/L	2016-11-16	2016-11-17	
Lead, total	0.0002	± 0.0001	0.0001	mg/L	2016-11-16	2016-11-17	
Lithium, total	0.0003		0.0001	mg/L	2016-11-16	2016-11-17	
Magnesium, total	12.7	± 1.9	0.01	mg/L	2016-11-16	2016-11-17	
Manganese, total	0.0130	± 0.0012	0.0002	mg/L	2016-11-16	2016-11-17	
Mercury, total	< 0.00002		0.00002	mg/L	2016-11-10	2016-11-10	
Molybdenum, total	0.0017	± 0.0001	0.0001	mg/L	2016-11-16	2016-11-17	
Nickel, total	0.0012	± 0.0001	0.0002	mg/L	2016-11-16	2016-11-17	
Phosphorus, total	< 0.02		0.02	mg/L	2016-11-16	2016-11-17	
Potassium, total	2.02	± 0.23	0.02	mg/L	2016-11-16	2016-11-17	
Selenium, total	< 0.0005		0.0005	mg/L	2016-11-16	2016-11-17	
Silicon, total	5.4	± 2.0	0.5	mg/L	2016-11-16	2016-11-17	
Silver, total	< 0.00005		0.00005	mg/L	2016-11-16	2016-11-17	
Sodium, total	35.9	± 5.3	0.02	mg/L	2016-11-16	2016-11-17	
Strontium, total	0.258	± 0.024	0.001	mg/L	2016-11-16	2016-11-17	
Sulfur, total	44	± 420	1	mg/L	2016-11-16	2016-11-17	
Tellurium, total	< 0.0002		0.0002	mg/L	2016-11-16	2016-11-17	
Thallium, total	< 0.00002		0.00002	mg/L	2016-11-16	2016-11-17	

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Sample ID: SW-1 (6110806-02) [Water] Sampled: 2016-11-09 09:20, Continued

Total Metals, Continued

Thorium, total	< 0.0001	0.0001	mg/L	2016-11-16	2016-11-17	
Tin, total	< 0.0002	0.0002	mg/L	2016-11-16	2016-11-17	
Titanium, total	0.006 ± 0.001	0.005	mg/L	2016-11-16	2016-11-17	
Uranium, total	0.00085 ± 0.00005	0.00002	mg/L	2016-11-16	2016-11-17	
Vanadium, total	0.001	0.001	mg/L	2016-11-16	2016-11-17	
Zinc, total	< 0.004	0.004	mg/L	2016-11-16	2016-11-17	
Zirconium, total	< 0.0001	0.0001	mg/L	2016-11-16	2016-11-17	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2016-11-14	2016-11-15	
EPHw19-32	< 250	250	µg/L	2016-11-14	2016-11-15	
LEPHw	< 250	250	µg/L	N/A	N/A	
HEPHw	< 250	250	µg/L	N/A	N/A	
<i>Surrogate: 2-Methylnonane</i>	83	60-140	%	2016-11-14	2016-11-15	

Glycols

Propylene glycol	< 5	5	mg/L	N/A	2016-11-15	
Ethylene glycol	< 5	5	mg/L	N/A	2016-11-15	
Diethylene glycol	< 5	5	mg/L	N/A	2016-11-15	
Triethylene glycol	< 5	5	mg/L	N/A	2016-11-15	
<i>Surrogate: Tetramethylene Glycol</i>	102	66-125	%	N/A	2016-11-15	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.05	0.05	µg/L	2016-11-14	2016-11-16	
Acenaphthylene	< 0.20	0.20	µg/L	2016-11-14	2016-11-16	
Acridine	< 0.10	0.10	µg/L	2016-11-14	2016-11-16	
Anthracene	< 0.01	0.01	µg/L	2016-11-14	2016-11-16	
Benz (a) anthracene	< 0.01	0.01	µg/L	2016-11-14	2016-11-16	
Benzo (a) pyrene	< 0.01	0.01	µg/L	2016-11-14	2016-11-16	
Benzo (b) fluoranthene	< 0.05	0.05	µg/L	2016-11-14	2016-11-16	
Benzo (g,h,i) perylene	< 0.05	0.05	µg/L	2016-11-14	2016-11-16	
Benzo (k) fluoranthene	< 0.05	0.05	µg/L	2016-11-14	2016-11-16	
Chrysene	< 0.05	0.05	µg/L	2016-11-14	2016-11-16	
Dibenz (a,h) anthracene	< 0.05	0.05	µg/L	2016-11-14	2016-11-16	
Fluoranthene	< 0.03	0.03	µg/L	2016-11-14	2016-11-16	
Fluorene	< 0.05	0.05	µg/L	2016-11-14	2016-11-16	
Indeno (1,2,3-cd) pyrene	< 0.05	0.05	µg/L	2016-11-14	2016-11-16	
Naphthalene	< 0.20	0.20	µg/L	2016-11-14	2016-11-16	
Phenanthrene	< 0.10	0.10	µg/L	2016-11-14	2016-11-16	
Pyrene	< 0.02	0.02	µg/L	2016-11-14	2016-11-16	
Quinoline	< 0.10	0.10	µg/L	2016-11-14	2016-11-16	
<i>Surrogate: Acridine-d9</i>	53	60-130	%	2016-11-14	2016-11-16	S02
<i>Surrogate: Naphthalene-d8</i>	79	60-130	%	2016-11-14	2016-11-16	
<i>Surrogate: Perylene-d12</i>	109	60-130	%	2016-11-14	2016-11-16	

Volatile Organic Compounds (VOC)

Benzene	< 0.5	0.5	µg/L	N/A	2016-11-12	
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Sample ID: SW-1 (6110806-02) [Water] Sampled: 2016-11-09 09:20, Continued

Volatile Organic Compounds (VOC), Continued							
Bromodichloromethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
Bromoform	< 1.0		1.0	µg/L	N/A	2016-11-12	
Bromomethane	< 2.0		2.0	µg/L	N/A	2016-11-12	
Carbon tetrachloride	< 1.0		1.0	µg/L	N/A	2016-11-12	
Chlorobenzene	< 1.0		1.0	µg/L	N/A	2016-11-12	
Chloroethane	< 2.0		2.0	µg/L	N/A	2016-11-12	
Chloroform	< 1.0		1.0	µg/L	N/A	2016-11-12	
Chloromethane	< 2.0		2.0	µg/L	N/A	2016-11-12	
Dibromochloromethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,2-Dibromoethane	< 0.3		0.3	µg/L	N/A	2016-11-12	
Dibromomethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,2-Dichlorobenzene	< 0.5		0.5	µg/L	N/A	2016-11-12	
1,3-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,4-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,1-Dichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,2-Dichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,1-Dichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-12	
cis-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-12	
trans-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,2-Dichloropropane	< 1.0		1.0	µg/L	N/A	2016-11-12	
cis-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2016-11-12	
trans-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2016-11-12	
Ethylbenzene	< 1.0		1.0	µg/L	N/A	2016-11-12	
Methyl tert-butyl ether	< 1.0		1.0	µg/L	N/A	2016-11-12	
Methylene chloride	< 3.0		3.0	µg/L	N/A	2016-11-12	
Styrene	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,1,1,2-Tetrachloroethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,1,2,2-Tetrachloroethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
Tetrachloroethene	< 1.0		1.0	µg/L	N/A	2016-11-12	
Toluene	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,1,1-Trichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
1,1,2-Trichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
Trichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-12	
Trichlorofluoromethane	< 1.0		1.0	µg/L	N/A	2016-11-12	
Vinyl chloride	< 2.0		2.0	µg/L	N/A	2016-11-12	
Xylenes (total)	< 2.0		2.0	µg/L	N/A	2016-11-12	
Surrogate: Toluene-d8	101		70-130	%	N/A	2016-11-12	
Surrogate: 4-Bromofluorobenzene	100		70-130	%	N/A	2016-11-12	
Surrogate: 1,4-Dichlorobenzene-d4	109		70-130	%	N/A	2016-11-12	

Sample / Analysis Qualifiers:

HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

S02 Surrogate recovery outside of control limits. Data accepted based on acceptable recovery of other surrogates.

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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk):** Laboratory reagent water is carried through sample preparation and analysis steps. Method Blanks indicate that results are free from contamination, i.e. not biased high from sources such as the sample container or the laboratory environment
- **Duplicate (Dup):** Preparation and analysis of a replicate aliquot of a sample. Duplicates provide a measure of the analytical method's precision, i.e. how reproducible a result is. Duplicates are only reported if they are associated with your sample data.
- **Blank Spike (BS):** A known amount of standard is carried through sample preparation and analysis steps. Blank Spikes, also known as laboratory control samples (LCS), are prepared from a different source of standard than used for the calibration. They ensure that the calibration is acceptable (i.e. not biased high or low) and also provide a measure of the analytical method's accuracy (i.e. closeness of the result to a target value).
- **Standard Reference Material (SRM):** A material of similar matrix to the samples, externally certified for the parameter(s) listed. Standard Reference Materials ensure that the preparation steps in the method are adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Anions, Batch B6K0734									
Blank (B6K0734-BLK1)			Prepared: 2016-11-10, Analyzed: 2016-11-10						
Nitrite (as N)	< 0.005	0.005 mg/L							
LCS (B6K0734-BS1)			Prepared: 2016-11-10, Analyzed: 2016-11-10						
Nitrite (as N)	0.050	0.005 mg/L	0.0500		100	90-110			
Anions, Batch B6K0804									
Blank (B6K0804-BLK1)			Prepared: 2016-11-15, Analyzed: 2016-11-15						
Nitrate+Nitrite (as N)	< 0.010	0.005 mg/L							
LCS (B6K0804-BS1)			Prepared: 2016-11-15, Analyzed: 2016-11-15						
Nitrate+Nitrite (as N)	0.509	0.005 mg/L	0.500		102	91-108			
Duplicate (B6K0804-DUP1)			Source: 6110806-01		Prepared: 2016-11-15, Analyzed: 2016-11-15				
Nitrate+Nitrite (as N)	0.357	0.005 mg/L		0.324			10	15	
Matrix Spike (B6K0804-MS1)			Source: 6110806-01		Prepared: 2016-11-15, Analyzed: 2016-11-15				
Nitrate+Nitrite (as N)	0.461	0.005 mg/L	0.125	0.324	110	81-118			
Anions, Batch B6K0885									
Blank (B6K0885-BLK1)			Prepared: 2016-11-14, Analyzed: 2016-11-14						
Chloride	< 0.10	0.10 mg/L							
Fluoride	< 0.10	0.10 mg/L							
Sulfate	< 1.0	1.0 mg/L							
Blank (B6K0885-BLK2)			Prepared: 2016-11-15, Analyzed: 2016-11-15						
Chloride	< 0.10	0.10 mg/L							
Fluoride	< 0.10	0.10 mg/L							
Sulfate	< 1.0	1.0 mg/L							

APPENDIX 1: QUALITY CONTROL DATA

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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Anions, Batch B6K0885, Continued									
LCS (B6K0885-BS1)			Prepared: 2016-11-14, Analyzed: 2016-11-14						
Chloride	15.7	0.10 mg/L	16.0		98	90-110			
Fluoride	3.80	0.10 mg/L	4.00		95	88-108			
Sulfate	15.3	1.0 mg/L	16.0		96	91-109			
LCS (B6K0885-BS2)			Prepared: 2016-11-15, Analyzed: 2016-11-15						
Chloride	15.7	0.10 mg/L	16.0		98	90-110			
Fluoride	3.95	0.10 mg/L	4.00		99	88-108			
Sulfate	15.3	1.0 mg/L	16.0		96	91-109			
Duplicate (B6K0885-DUP2)			Source: 6110806-01		Prepared: 2016-11-15, Analyzed: 2016-11-15				
Chloride	46.3	0.10 mg/L		47.0			2	10	
Fluoride	< 0.10	0.10 mg/L		< 0.10				10	
Sulfate	66.6	1.0 mg/L		66.8			< 1	6	
Matrix Spike (B6K0885-MS2)			Source: 6110806-01		Prepared: 2016-11-15, Analyzed: 2016-11-15				
Chloride	64.6	0.10 mg/L	16.0	47.0	110	75-125			
Fluoride	3.88	0.10 mg/L	4.00	< 0.10	97	75-125			
Sulfate	82.6	1.0 mg/L	16.0	66.8	99	75-125			
BCMOE Aggregate Hydrocarbons, Batch B6K0838									
Blank (B6K0838-BLK1)			Prepared: 2016-11-14, Analyzed: 2016-11-15						
EPHw10-19	< 250	250 µg/L							
EPHw19-32	< 250	250 µg/L							
Surrogate: 2-Methylnonane	370	µg/L	444		83	60-140			
LCS (B6K0838-BS2)			Prepared: 2016-11-14, Analyzed: 2016-11-15						
EPHw10-19	17600	250 µg/L	15500		113	70-130			
EPHw19-32	19500	250 µg/L	22200		88	70-130			
Surrogate: 2-Methylnonane	516	µg/L	444		116	60-140			
Dissolved Metals, Batch B6K0745									
Blank (B6K0745-BLK1)			Prepared: 2016-11-10, Analyzed: 2016-11-10						
Mercury, dissolved	< 0.00002	0.00002 mg/L							
Reference (B6K0745-SRM1)			Prepared: 2016-11-10, Analyzed: 2016-11-10						
Mercury, dissolved	0.00509	0.00002 mg/L	0.00486		105	50-150			
Dissolved Metals, Batch B6K1120									
Blank (B6K1120-BLK1)			Prepared: 2016-11-17, Analyzed: 2016-11-17						
Aluminum, dissolved	< 0.005	0.005 mg/L							
Antimony, dissolved	< 0.0001	0.0001 mg/L							
Arsenic, dissolved	< 0.0005	0.0005 mg/L							
Barium, dissolved	< 0.005	0.005 mg/L							
Beryllium, dissolved	< 0.0001	0.0001 mg/L							
Bismuth, dissolved	< 0.0001	0.0001 mg/L							
Boron, dissolved	< 0.004	0.004 mg/L							
Cadmium, dissolved	< 0.00001	0.00001 mg/L							
Calcium, dissolved	< 0.2	0.2 mg/L							
Chromium, dissolved	< 0.0005	0.0005 mg/L							
Cobalt, dissolved	< 0.00005	0.00005 mg/L							
Copper, dissolved	< 0.0002	0.0002 mg/L							
Iron, dissolved	< 0.010	0.010 mg/L							
Lead, dissolved	< 0.0001	0.0001 mg/L							

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WORK ORDER REPORTED 6110806
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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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Dissolved Metals, Batch B6K1120, Continued

Blank (B6K1120-BLK1), Continued

Prepared: 2016-11-17, Analyzed: 2016-11-17

Lithium, dissolved	< 0.0001	0.0001 mg/L							
Magnesium, dissolved	< 0.01	0.01 mg/L							
Manganese, dissolved	< 0.0002	0.0002 mg/L							
Molybdenum, dissolved	< 0.0001	0.0001 mg/L							
Nickel, dissolved	< 0.0002	0.0002 mg/L							
Phosphorus, dissolved	< 0.02	0.02 mg/L							
Potassium, dissolved	< 0.02	0.02 mg/L							
Selenium, dissolved	< 0.0005	0.0005 mg/L							
Silicon, dissolved	< 0.5	0.5 mg/L							
Silver, dissolved	< 0.00005	0.00005 mg/L							
Sodium, dissolved	< 0.02	0.02 mg/L							
Strontium, dissolved	< 0.001	0.001 mg/L							
Sulfur, dissolved	< 1	1 mg/L							
Tellurium, dissolved	< 0.0002	0.0002 mg/L							
Thallium, dissolved	< 0.00002	0.00002 mg/L							
Thorium, dissolved	< 0.0001	0.0001 mg/L							
Tin, dissolved	< 0.0002	0.0002 mg/L							
Titanium, dissolved	< 0.005	0.005 mg/L							
Uranium, dissolved	< 0.00002	0.00002 mg/L							
Vanadium, dissolved	< 0.001	0.001 mg/L							
Zinc, dissolved	< 0.004	0.004 mg/L							
Zirconium, dissolved	< 0.0001	0.0001 mg/L							

Duplicate (B6K1120-DUP1)

Source: 6110806-01

Prepared: 2016-11-17, Analyzed: 2016-11-17

Aluminum, dissolved	0.011	0.005 mg/L		0.011				11	
Antimony, dissolved	0.0002	0.0001 mg/L		0.0002				44	
Arsenic, dissolved	< 0.0005	0.0005 mg/L		< 0.0005				8	
Barium, dissolved	0.009	0.005 mg/L		0.009				7	
Beryllium, dissolved	< 0.0001	0.0001 mg/L		< 0.0001				14	
Bismuth, dissolved	< 0.0001	0.0001 mg/L		< 0.0001				20	
Boron, dissolved	0.031	0.004 mg/L		0.026		18		13	RPD
Cadmium, dissolved	< 0.00001	0.00001 mg/L		< 0.00001				27	
Calcium, dissolved	42.5	0.2 mg/L		42.1		< 1		8	
Chromium, dissolved	< 0.0005	0.0005 mg/L		< 0.0005				14	
Cobalt, dissolved	< 0.00005	0.00005 mg/L		< 0.00005				10	
Copper, dissolved	0.0008	0.0002 mg/L		0.0007				28	
Iron, dissolved	< 0.010	0.010 mg/L		< 0.010				14	
Lead, dissolved	0.0001	0.0001 mg/L		< 0.0001				26	
Lithium, dissolved	0.0002	0.0001 mg/L		0.0002				14	
Magnesium, dissolved	7.57	0.01 mg/L		7.41		2		6	
Manganese, dissolved	0.0024	0.0002 mg/L		0.0025		3		9	
Molybdenum, dissolved	0.0008	0.0001 mg/L		0.0008		2		19	
Nickel, dissolved	0.0006	0.0002 mg/L		0.0005				21	
Phosphorus, dissolved	< 0.02	0.02 mg/L		< 0.02				14	
Potassium, dissolved	1.48	0.02 mg/L		1.45		2		8	
Selenium, dissolved	< 0.0005	0.0005 mg/L		< 0.0005				36	
Silicon, dissolved	3.1	0.5 mg/L		3.1		< 1		12	
Silver, dissolved	< 0.00005	0.00005 mg/L		< 0.00005				20	
Sodium, dissolved	28.2	0.02 mg/L		27.8		1		6	
Strontium, dissolved	0.161	0.001 mg/L		0.159		1		6	
Sulfur, dissolved	25	1 mg/L		24		5		26	
Tellurium, dissolved	< 0.0002	0.0002 mg/L		< 0.0002				20	
Thallium, dissolved	0.00002	0.00002 mg/L		< 0.00002				13	
Thorium, dissolved	< 0.0001	0.0001 mg/L		< 0.0001				30	
Tin, dissolved	< 0.0002	0.0002 mg/L		< 0.0002				6	
Titanium, dissolved	< 0.005	0.005 mg/L		< 0.005				20	
Uranium, dissolved	0.00050	0.00002 mg/L		0.00050		< 1		14	

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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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Dissolved Metals, Batch B6K1120, Continued

Duplicate (B6K1120-DUP1), Continued

Source: 6110806-01

Prepared: 2016-11-17, Analyzed: 2016-11-17

Vanadium, dissolved	< 0.001	0.001 mg/L		< 0.001				20	
Zinc, dissolved	< 0.004	0.004 mg/L		< 0.004				11	
Zirconium, dissolved	< 0.0001	0.0001 mg/L		< 0.0001				36	

Matrix Spike (B6K1120-MS1)

Source: 6110806-02

Prepared: 2016-11-17, Analyzed: 2016-11-17

Antimony, dissolved	0.415	0.0001 mg/L	0.400	0.0003	104	76-114			
Arsenic, dissolved	0.223	0.0005 mg/L	0.200	< 0.0005	111	81-115			
Barium, dissolved	0.986	0.005 mg/L	1.00	0.016	97	80-113			
Beryllium, dissolved	0.0882	0.0001 mg/L	0.100	< 0.0001	88	69-109			
Cadmium, dissolved	0.0993	0.0001 mg/L	0.100	< 0.00001	99	83-110			
Chromium, dissolved	0.436	0.0005 mg/L	0.400	< 0.0005	109	85-115			
Cobalt, dissolved	0.430	0.00005 mg/L	0.400	0.00006	107	86-114			
Copper, dissolved	0.433	0.0002 mg/L	0.400	0.0013	108	82-119			
Iron, dissolved	2.14	0.010 mg/L	2.00	< 0.010	107	80-116			
Lead, dissolved	0.187	0.0001 mg/L	0.200	< 0.0001	93	83-112			
Manganese, dissolved	0.414	0.0002 mg/L	0.400	0.0017	103	62-131			
Nickel, dissolved	0.423	0.0002 mg/L	0.400	0.0007	106	81-115			
Selenium, dissolved	0.100	0.0005 mg/L	0.100	< 0.0005	100	79-115			
Silver, dissolved	0.105	0.00005 mg/L	0.100	< 0.00005	105	69-121			
Thallium, dissolved	0.0936	0.00002 mg/L	0.100	< 0.00002	94	84-115			
Vanadium, dissolved	0.418	0.001 mg/L	0.400	< 0.001	104	83-113			
Zinc, dissolved	1.09	0.004 mg/L	1.00	< 0.004	109	82-115			

Reference (B6K1120-SRM1)

Prepared: 2016-11-17, Analyzed: 2016-11-17

Aluminum, dissolved	0.234	0.005 mg/L	0.233		101	58-142			
Antimony, dissolved	0.0433	0.0001 mg/L	0.0430		101	75-125			
Arsenic, dissolved	0.464	0.0005 mg/L	0.438		106	81-119			
Barium, dissolved	3.16	0.005 mg/L	3.35		94	83-117			
Beryllium, dissolved	0.197	0.0001 mg/L	0.213		92	80-120			
Boron, dissolved	1.44	0.004 mg/L	1.74		83	74-117			
Cadmium, dissolved	0.213	0.00001 mg/L	0.224		95	83-117			
Calcium, dissolved	7.8	0.2 mg/L	7.69		101	76-124			
Chromium, dissolved	0.462	0.0005 mg/L	0.437		106	81-119			
Cobalt, dissolved	0.136	0.00005 mg/L	0.128		106	76-124			
Copper, dissolved	0.884	0.0002 mg/L	0.844		105	84-116			
Iron, dissolved	1.31	0.010 mg/L	1.29		102	74-126			
Lead, dissolved	0.106	0.0001 mg/L	0.112		94	72-128			
Lithium, dissolved	0.0837	0.0001 mg/L	0.104		80	60-140			
Magnesium, dissolved	7.12	0.01 mg/L	6.92		103	81-119			
Manganese, dissolved	0.348	0.0002 mg/L	0.345		101	84-116			
Molybdenum, dissolved	0.418	0.0001 mg/L	0.426		98	83-117			
Nickel, dissolved	0.881	0.0002 mg/L	0.840		105	74-126			
Phosphorus, dissolved	0.50	0.02 mg/L	0.495		100	68-132			
Potassium, dissolved	3.36	0.02 mg/L	3.19		105	74-126			
Selenium, dissolved	0.0331	0.0005 mg/L	0.0331		100	70-130			
Sodium, dissolved	19.3	0.02 mg/L	19.1		101	72-128			
Strontium, dissolved	0.890	0.001 mg/L	0.916		97	84-113			
Thallium, dissolved	0.0368	0.00002 mg/L	0.0393		94	57-143			
Uranium, dissolved	0.239	0.00002 mg/L	0.266		90	85-115			
Vanadium, dissolved	0.899	0.001 mg/L	0.869		103	87-113			
Zinc, dissolved	0.906	0.004 mg/L	0.881		103	72-128			

General Parameters, Batch B6K0730

Blank (B6K0730-BLK1)

Prepared: 2016-11-10, Analyzed: 2016-11-10

Turbidity	< 0.10	0.10 NTU							
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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
General Parameters, Batch B6K0730, Continued									
Blank (B6K0730-BLK2)			Prepared: 2016-11-10, Analyzed: 2016-11-10						
Turbidity	< 0.10	0.10 NTU							
LCS (B6K0730-BS1)			Prepared: 2016-11-10, Analyzed: 2016-11-10						
Turbidity	10.3	0.10 NTU	10.0		103	82-115			
LCS (B6K0730-BS2)			Prepared: 2016-11-10, Analyzed: 2016-11-10						
Turbidity	9.68	0.10 NTU	10.0		97	82-115			
General Parameters, Batch B6K0801									
Blank (B6K0801-BLK1)			Prepared: 2016-11-10, Analyzed: 2016-11-10						
Colour, True	< 5	5 CU							
LCS (B6K0801-BS1)			Prepared: 2016-11-10, Analyzed: 2016-11-10						
Colour, True	10	5 CU	10.0		102	85-115			
Duplicate (B6K0801-DUP1)			Source: 6110806-01		Prepared: 2016-11-10, Analyzed: 2016-11-10				
Colour, True	< 5	5 CU		< 5				5	
General Parameters, Batch B6K0864									
Blank (B6K0864-BLK1)			Prepared: 2016-11-14, Analyzed: 2016-11-14						
Solids, Total Suspended	< 0.5	2 mg/L							
Blank (B6K0864-BLK2)			Prepared: 2016-11-14, Analyzed: 2016-11-14						
Solids, Total Suspended	< 0.5	2 mg/L							
LCS (B6K0864-BS1)			Prepared: 2016-11-14, Analyzed: 2016-11-14						
Solids, Total Suspended	49	2 mg/L	50.0		99	85-110			
LCS (B6K0864-BS2)			Prepared: 2016-11-14, Analyzed: 2016-11-14						
Solids, Total Suspended	50	2 mg/L	50.0		100	85-110			
General Parameters, Batch B6K0896									
Blank (B6K0896-BLK1)			Prepared: 2016-11-14, Analyzed: 2016-11-14						
Solids, Total Dissolved	< 10	10 mg/L							
LCS (B6K0896-BS1)			Prepared: 2016-11-14, Analyzed: 2016-11-14						
Solids, Total Dissolved	240	10 mg/L	240		100	80-120			
General Parameters, Batch B6K0898									
Blank (B6K0898-BLK1)			Prepared: 2016-11-15, Analyzed: 2016-11-15						
Alkalinity, Total (as CaCO ₃)	< 1	1 mg/L							
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1	1 mg/L							
Alkalinity, Bicarbonate (as CaCO ₃)	< 1	1 mg/L							
Alkalinity, Carbonate (as CaCO ₃)	< 1	1 mg/L							
Alkalinity, Hydroxide (as CaCO ₃)	< 1	1 mg/L							
Conductivity (EC)	< 2	2 µS/cm							
LCS (B6K0898-BS1)			Prepared: 2016-11-15, Analyzed: 2016-11-15						
Alkalinity, Total (as CaCO ₃)	102	1 mg/L	100		102	96-108			
LCS (B6K0898-BS2)			Prepared: 2016-11-15, Analyzed: 2016-11-15						
Conductivity (EC)	1400	2 µS/cm	1410		99	95-104			

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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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General Parameters, Batch B6K0898, Continued

Reference (B6K0898-SRM1)

Prepared: 2016-11-15, Analyzed: 2016-11-15

pH	6.92	0.01 pH units	7.00		99	98-102			
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General Parameters, Batch B6K1024

Blank (B6K1024-BLK1)

Prepared: 2016-11-16, Analyzed: 2016-11-16

Chromium, Hexavalent	< 0.001	0.001 mg/L							
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LCS (B6K1024-BS1)

Prepared: 2016-11-16, Analyzed: 2016-11-16

Chromium, Hexavalent	0.105	0.001 mg/L	0.100		105	90-111			
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Matrix Spike (B6K1024-MS1)

Source: 6110806-01

Prepared: 2016-11-16, Analyzed: 2016-11-16

Chromium, Hexavalent	0.087	0.001 mg/L	0.100	< 0.001	87	70-116			
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Glycols, Batch B6K0949

Blank (B6K0949-BLK1)

Prepared: 2016-11-15, Analyzed: 2016-11-15

Propylene glycol	< 5	5 mg/L							
Ethylene glycol	< 5	5 mg/L							
Diethylene glycol	< 5	5 mg/L							
Triethylene glycol	< 5	5 mg/L							
Surrogate: Tetramethylene Glycol	95.6	mg/L	95.6		100	66-125			

LCS (B6K0949-BS1)

Prepared: 2016-11-15, Analyzed: 2016-11-15

Propylene glycol	44	5 mg/L	50.0		88	71-114			
Ethylene glycol	48	5 mg/L	49.9		96	82-124			
Diethylene glycol	46	5 mg/L	50.0		93	80-116			
Triethylene glycol	46	5 mg/L	49.8		93	73-120			
Surrogate: Tetramethylene Glycol	92.2	mg/L	95.6		96	66-125			

LCS Dup (B6K0949-BSD1)

Prepared: 2016-11-15, Analyzed: 2016-11-15

Propylene glycol	45	5 mg/L	50.0		90	71-114	2	20	
Ethylene glycol	51	5 mg/L	49.9		102	82-124	7	20	
Diethylene glycol	51	5 mg/L	50.0		102	80-116	10	20	
Triethylene glycol	52	5 mg/L	49.8		104	73-120	10	20	
Surrogate: Tetramethylene Glycol	96.3	mg/L	95.6		101	66-125			

Polycyclic Aromatic Hydrocarbons (PAH), Batch B6K0838

Blank (B6K0838-BLK1)

Prepared: 2016-11-14, Analyzed: 2016-11-16

Acenaphthene	< 0.05	0.05 µg/L							
Acenaphthylene	< 0.20	0.20 µg/L							
Acridine	< 0.10	0.10 µg/L							
Anthracene	< 0.01	0.01 µg/L							
Benz (a) anthracene	< 0.01	0.01 µg/L							
Benzo (a) pyrene	< 0.01	0.01 µg/L							
Benzo (b) fluoranthene	< 0.05	0.05 µg/L							
Benzo (g,h,i) perylene	< 0.05	0.05 µg/L							
Benzo (k) fluoranthene	< 0.05	0.05 µg/L							
Chrysene	< 0.05	0.05 µg/L							
Dibenz (a,h) anthracene	< 0.05	0.05 µg/L							
Fluoranthene	< 0.03	0.03 µg/L							
Fluorene	< 0.05	0.05 µg/L							
Indeno (1,2,3-cd) pyrene	< 0.05	0.05 µg/L							
Naphthalene	< 0.20	0.20 µg/L							
Phenanthrene	< 0.10	0.10 µg/L							

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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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Polycyclic Aromatic Hydrocarbons (PAH), Batch B6K0838, Continued

Blank (B6K0838-BLK1), Continued

Prepared: 2016-11-14, Analyzed: 2016-11-16

Pyrene	< 0.02	0.02 µg/L							
Quinoline	< 0.10	0.10 µg/L							
Surrogate: Acridine-d9	1.96	µg/L	4.44		44	60-130			S02
Surrogate: Naphthalene-d8	3.60	µg/L	4.44		81	60-130			
Surrogate: Perylene-d12	4.66	µg/L	4.44		105	60-130			

LCS (B6K0838-BS1)

Prepared: 2016-11-14, Analyzed: 2016-11-16

Acenaphthene	4.05	0.05 µg/L	4.44		91	70-130			
Acenaphthylene	4.05	0.20 µg/L	4.44		91	70-130			
Acridine	3.60	0.10 µg/L	4.44		81	60-130			
Anthracene	4.30	0.01 µg/L	4.44		97	70-130			
Benz (a) anthracene	4.24	0.01 µg/L	4.44		95	70-130			
Benzo (a) pyrene	4.43	0.01 µg/L	4.44		100	70-130			
Benzo (b) fluoranthene	4.43	0.05 µg/L	4.44		100	70-130			
Benzo (g,h,i) perylene	4.71	0.05 µg/L	4.44		106	70-130			
Benzo (k) fluoranthene	4.70	0.05 µg/L	4.44		106	70-130			
Chrysene	4.18	0.05 µg/L	4.44		94	70-130			
Dibenz (a,h) anthracene	4.60	0.05 µg/L	4.44		103	70-130			
Fluoranthene	4.66	0.03 µg/L	4.44		105	70-130			
Fluorene	3.90	0.05 µg/L	4.44		88	70-130			
Indeno (1,2,3-cd) pyrene	4.94	0.05 µg/L	4.44		111	70-130			
Naphthalene	4.02	0.20 µg/L	4.44		90	70-130			
Phenanthrene	4.27	0.10 µg/L	4.44		96	70-130			
Pyrene	4.72	0.02 µg/L	4.44		106	70-130			
Quinoline	5.06	0.10 µg/L	4.44		114	70-130			
Surrogate: Acridine-d9	2.24	µg/L	4.44		50	60-130			S02
Surrogate: Naphthalene-d8	3.63	µg/L	4.44		82	60-130			
Surrogate: Perylene-d12	4.69	µg/L	4.44		106	60-130			

LCS Dup (B6K0838-BSD1)

Prepared: 2016-11-14, Analyzed: 2016-11-16

Acenaphthene	3.98	0.05 µg/L	4.44		90	70-130	2	20	
Acenaphthylene	3.98	0.20 µg/L	4.44		90	70-130	2	20	
Acridine	3.67	0.10 µg/L	4.44		83	60-130	2	20	
Anthracene	4.18	0.01 µg/L	4.44		94	70-130	3	20	
Benz (a) anthracene	4.15	0.01 µg/L	4.44		93	70-130	2	20	
Benzo (a) pyrene	4.37	0.01 µg/L	4.44		98	70-130	2	20	
Benzo (b) fluoranthene	4.34	0.05 µg/L	4.44		98	70-130	2	20	
Benzo (g,h,i) perylene	4.91	0.05 µg/L	4.44		110	70-130	4	20	
Benzo (k) fluoranthene	4.60	0.05 µg/L	4.44		103	70-130	2	20	
Chrysene	4.14	0.05 µg/L	4.44		93	70-130	< 1	20	
Dibenz (a,h) anthracene	4.77	0.05 µg/L	4.44		107	70-130	4	20	
Fluoranthene	4.49	0.03 µg/L	4.44		101	70-130	4	20	
Fluorene	3.79	0.05 µg/L	4.44		85	70-130	3	20	
Indeno (1,2,3-cd) pyrene	5.09	0.05 µg/L	4.44		115	70-130	3	20	
Naphthalene	4.08	0.20 µg/L	4.44		92	70-130	2	20	
Phenanthrene	4.14	0.10 µg/L	4.44		93	70-130	3	20	
Pyrene	4.52	0.02 µg/L	4.44		102	70-130	4	20	
Quinoline	5.16	0.10 µg/L	4.44		116	70-130	2	20	
Surrogate: Acridine-d9	2.31	µg/L	4.44		52	60-130			S02
Surrogate: Naphthalene-d8	3.66	µg/L	4.44		82	60-130			
Surrogate: Perylene-d12	4.57	µg/L	4.44		103	60-130			

Total Metals, Batch B6K0746

Blank (B6K0746-BLK1)

Prepared: 2016-11-10, Analyzed: 2016-11-10

Mercury, total	< 0.00002	0.00002 mg/L							
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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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Total Metals, Batch B6K0746, Continued

Reference (B6K0746-SRM1)

Prepared: 2016-11-10, Analyzed: 2016-11-10

Mercury, total	0.00498	0.00002 mg/L	0.00486		102	50-150			
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Total Metals, Batch B6K1038

Blank (B6K1038-BLK1)

Prepared: 2016-11-16, Analyzed: 2016-11-17

Aluminum, total	< 0.005	0.005 mg/L							
Antimony, total	< 0.0001	0.0001 mg/L							
Arsenic, total	< 0.0005	0.0005 mg/L							
Barium, total	< 0.005	0.005 mg/L							
Beryllium, total	< 0.0001	0.0001 mg/L							
Bismuth, total	< 0.0001	0.0001 mg/L							
Boron, total	< 0.004	0.004 mg/L							
Cadmium, total	< 0.00001	0.00001 mg/L							
Calcium, total	< 0.2	0.2 mg/L							
Chromium, total	< 0.0005	0.0005 mg/L							
Cobalt, total	< 0.00005	0.00005 mg/L							
Copper, total	< 0.0002	0.0002 mg/L							
Iron, total	< 0.01	0.01 mg/L							
Lead, total	< 0.0001	0.0001 mg/L							
Lithium, total	< 0.0001	0.0001 mg/L							
Magnesium, total	< 0.01	0.01 mg/L							
Manganese, total	< 0.0002	0.0002 mg/L							
Molybdenum, total	< 0.0001	0.0001 mg/L							
Nickel, total	< 0.0002	0.0002 mg/L							
Phosphorus, total	< 0.02	0.02 mg/L							
Potassium, total	< 0.02	0.02 mg/L							
Selenium, total	< 0.0005	0.0005 mg/L							
Silicon, total	< 0.5	0.5 mg/L							
Silver, total	< 0.00005	0.00005 mg/L							
Sodium, total	< 0.02	0.02 mg/L							
Strontium, total	< 0.001	0.001 mg/L							
Sulfur, total	< 1	1 mg/L							
Tellurium, total	< 0.0002	0.0002 mg/L							
Thallium, total	< 0.00002	0.00002 mg/L							
Thorium, total	< 0.0001	0.0001 mg/L							
Tin, total	< 0.0002	0.0002 mg/L							
Titanium, total	< 0.005	0.005 mg/L							
Uranium, total	< 0.00002	0.00002 mg/L							
Vanadium, total	< 0.001	0.001 mg/L							
Zinc, total	< 0.004	0.004 mg/L							
Zirconium, total	< 0.0001	0.0001 mg/L							

Duplicate (B6K1038-DUP1)

Source: 6110806-01

Prepared: 2016-11-16, Analyzed: 2016-11-17

Aluminum, total	2.05	0.005 mg/L	2.07			1	29		
Antimony, total	0.0002	0.0001 mg/L	0.0002						31
Arsenic, total	0.0006	0.0005 mg/L	0.0006						15
Barium, total	0.020	0.005 mg/L	0.020						9
Beryllium, total	< 0.0001	0.0001 mg/L	< 0.0001						16
Bismuth, total	< 0.0001	0.0001 mg/L	< 0.0001						20
Boron, total	0.031	0.004 mg/L	0.028			9	29		
Cadmium, total	0.00001	0.00001 mg/L	0.00001						33
Calcium, total	45.2	0.2 mg/L	48.4			7	12		
Chromium, total	0.0045	0.0005 mg/L	0.0049			8	12		
Cobalt, total	0.00094	0.00005 mg/L	0.00095			1	13		
Copper, total	0.0050	0.0002 mg/L	0.0055			9	37		
Iron, total	2.14	0.01 mg/L	2.21			3	18		

APPENDIX 1: QUALITY CONTROL DATA

REPORTED TO PROJECT Allterra Construction
SIRM 460 Stebbings

WORK ORDER REPORTED 6110806
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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Total Metals, Batch B6K1038, Continued									
Duplicate (B6K1038-DUP1), Continued		Source: 6110806-01		Prepared: 2016-11-16, Analyzed: 2016-11-17					
Lead, total	0.0010	0.0001 mg/L		0.0011			6	23	
Lithium, total	0.0010	0.0001 mg/L		0.0010			1	19	
Magnesium, total	8.73	0.01 mg/L		8.84			1	10	
Manganese, total	0.0354	0.0002 mg/L		0.0366			3	13	
Molybdenum, total	0.0008	0.0001 mg/L		0.0009			4	20	
Nickel, total	0.0037	0.0002 mg/L		0.0038			4	28	
Phosphorus, total	0.05	0.02 mg/L		0.05				24	
Potassium, total	1.81	0.02 mg/L		1.85			2	13	
Selenium, total	< 0.0005	0.0005 mg/L		< 0.0005				24	
Silicon, total	6.8	0.5 mg/L		7.0			3	11	
Silver, total	< 0.00005	0.00005 mg/L		< 0.00005				18	
Sodium, total	30.7	0.02 mg/L		31.1			1	10	
Strontium, total	0.174	0.001 mg/L		0.177			2	9	
Sulfur, total	25	1 mg/L		26			5	24	
Tellurium, total	< 0.0002	0.0002 mg/L		< 0.0002				20	
Thallium, total	< 0.00002	0.00002 mg/L		< 0.00002				24	
Thorium, total	< 0.0001	0.0001 mg/L		< 0.0001				18	
Tin, total	< 0.0002	0.0002 mg/L		< 0.0002				18	
Titanium, total	0.107	0.005 mg/L		0.106			1	32	
Uranium, total	0.00058	0.00002 mg/L		0.00061			6	14	
Vanadium, total	0.006	0.001 mg/L		0.007			4	17	
Zinc, total	0.007	0.004 mg/L		0.008				8	
Zirconium, total	0.0005	0.0001 mg/L		0.0004			21	60	
Matrix Spike (B6K1038-MS1)		Source: 6110806-02		Prepared: 2016-11-16, Analyzed: 2016-11-17					
Antimony, total	0.451	0.0001 mg/L	0.400	0.0003	113	84-125			
Arsenic, total	0.228	0.0005 mg/L	0.200	< 0.0005	114	85-116			
Barium, total	1.08	0.005 mg/L	1.00	0.018	106	87-114			
Beryllium, total	0.0989	0.0001 mg/L	0.100	< 0.0001	99	72-116			
Cadmium, total	0.108	0.00001 mg/L	0.100	< 0.00001	108	90-112			
Chromium, total	0.480	0.0005 mg/L	0.400	0.0016	120	89-120			
Cobalt, total	0.425	0.00005 mg/L	0.400	0.00021	106	88-120			
Copper, total	0.480	0.0002 mg/L	0.400	0.0024	119	88-125			
Iron, total	2.49	0.01 mg/L	2.00	0.19	115	88-119			
Lead, total	0.209	0.0001 mg/L	0.200	0.0002	105	89-118			
Manganese, total	0.465	0.0002 mg/L	0.400	0.0130	113	84-120			
Nickel, total	0.466	0.0002 mg/L	0.400	0.0012	116	87-119			
Selenium, total	0.110	0.0005 mg/L	0.100	< 0.0005	109	85-113			
Silver, total	0.117	0.00005 mg/L	0.100	< 0.00005	117	89-119			
Thallium, total	0.105	0.00002 mg/L	0.100	< 0.00002	105	92-119			
Vanadium, total	0.458	0.001 mg/L	0.400	0.001	114	87-117			
Zinc, total	1.11	0.004 mg/L	1.00	< 0.004	111	85-116			
Reference (B6K1038-SRM1)		Prepared: 2016-11-16, Analyzed: 2016-11-17							
Aluminum, total	0.327	0.005 mg/L	0.303		108	81-129			
Antimony, total	0.0524	0.0001 mg/L	0.0511		103	88-114			
Arsenic, total	0.126	0.0005 mg/L	0.118		107	88-114			
Barium, total	0.789	0.005 mg/L	0.823		96	72-104			
Beryllium, total	0.0482	0.0001 mg/L	0.0496		97	76-131			
Boron, total	3.17	0.004 mg/L	3.45		92	75-121			
Cadmium, total	0.0505	0.00001 mg/L	0.0495		102	89-111			
Calcium, total	12.2	0.2 mg/L	11.6		105	86-121			
Chromium, total	0.276	0.0005 mg/L	0.250		110	89-114			
Cobalt, total	0.0393	0.00005 mg/L	0.0377		104	91-113			
Copper, total	0.561	0.0002 mg/L	0.486		115	91-115			
Iron, total	0.56	0.01 mg/L	0.488		115	77-124			
Lead, total	0.209	0.0001 mg/L	0.204		102	92-113			

APPENDIX 1: QUALITY CONTROL DATA

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 6110806
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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Total Metals, Batch B6K1038, Continued									
Reference (B6K1038-SRM1), Continued					Prepared: 2016-11-16, Analyzed: 2016-11-17				
Lithium, total	0.344	0.0001 mg/L	0.403		85	85-115			
Magnesium, total	4.36	0.01 mg/L	3.79		115	78-120			
Manganese, total	0.117	0.0002 mg/L	0.109		108	90-114			
Molybdenum, total	0.208	0.0001 mg/L	0.198		105	90-111			
Nickel, total	0.277	0.0002 mg/L	0.249		111	90-111			
Phosphorus, total	0.23	0.02 mg/L	0.227		102	85-115			
Potassium, total	8.13	0.02 mg/L	7.21		113	84-113			
Selenium, total	0.131	0.0005 mg/L	0.121		108	85-115			
Sodium, total	8.45	0.02 mg/L	7.54		112	82-123			
Strontium, total	0.391	0.001 mg/L	0.375		104	88-112			
Thallium, total	0.0836	0.00002 mg/L	0.0805		104	91-114			
Uranium, total	0.0299	0.00002 mg/L	0.0306		98	85-120			
Vanadium, total	0.427	0.001 mg/L	0.386		111	86-111			
Zinc, total	2.63	0.004 mg/L	2.49		106	85-111			

Volatile Organic Compounds (VOC), Batch B6K0772

Blank (B6K0772-BLK1)			Prepared: 2016-11-12, Analyzed: 2016-11-12						
Benzene	< 0.5	0.5 µg/L							
Bromodichloromethane	< 1.0	1.0 µg/L							
Bromoform	< 1.0	1.0 µg/L							
Bromomethane	< 2.0	2.0 µg/L							
Carbon tetrachloride	< 1.0	1.0 µg/L							
Chlorobenzene	< 1.0	1.0 µg/L							
Chloroethane	< 2.0	2.0 µg/L							
Chloroform	< 1.0	1.0 µg/L							
Chloromethane	< 2.0	2.0 µg/L							
Dibromochloromethane	< 1.0	1.0 µg/L							
1,2-Dibromoethane	< 0.3	0.3 µg/L							
Dibromomethane	< 1.0	1.0 µg/L							
1,2-Dichlorobenzene	< 0.5	0.5 µg/L							
1,3-Dichlorobenzene	< 1.0	1.0 µg/L							
1,4-Dichlorobenzene	< 1.0	1.0 µg/L							
1,1-Dichloroethane	< 1.0	1.0 µg/L							
1,2-Dichloroethane	< 1.0	1.0 µg/L							
1,1-Dichloroethene	< 1.0	1.0 µg/L							
cis-1,2-Dichloroethene	< 1.0	1.0 µg/L							
trans-1,2-Dichloroethene	< 1.0	1.0 µg/L							
1,2-Dichloropropane	< 1.0	1.0 µg/L							
cis-1,3-Dichloropropene	< 1.0	1.0 µg/L							
trans-1,3-Dichloropropene	< 1.0	1.0 µg/L							
Ethylbenzene	< 1.0	1.0 µg/L							
Methyl tert-butyl ether	< 1.0	1.0 µg/L							
Methylene chloride	< 3.0	3.0 µg/L							
Styrene	< 1.0	1.0 µg/L							
1,1,1,2-Tetrachloroethane	< 1.0	1.0 µg/L							
1,1,2,2-Tetrachloroethane	< 1.0	1.0 µg/L							
Tetrachloroethene	< 1.0	1.0 µg/L							
Toluene	< 1.0	1.0 µg/L							
1,1,1-Trichloroethane	< 1.0	1.0 µg/L							
1,1,2-Trichloroethane	< 1.0	1.0 µg/L							
Trichloroethene	< 1.0	1.0 µg/L							
Trichlorofluoromethane	< 1.0	1.0 µg/L							
Vinyl chloride	< 2.0	2.0 µg/L							
Xylenes (total)	< 2.0	2.0 µg/L							
Surrogate: Toluene-d8	25.8	µg/L	25.0		103	70-130			

APPENDIX 1: QUALITY CONTROL DATA

REPORTED TO PROJECT Allterra Construction
SIRM 460 Stebbings

WORK ORDER REPORTED 6110806
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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Volatile Organic Compounds (VOC), Batch B6K0772, Continued									
Blank (B6K0772-BLK1), Continued					Prepared: 2016-11-12, Analyzed: 2016-11-12				
Surrogate: 4-Bromofluorobenzene	26.9	µg/L	25.0		108	70-130			
Surrogate: 1,4-Dichlorobenzene-d4	26.2	µg/L	25.0		105	70-130			
LCS (B6K0772-BS1)					Prepared: 2016-11-11, Analyzed: 2016-11-11				
Benzene	20.6	0.5 µg/L	20.0		103	70-130			
Bromodichloromethane	20.4	1.0 µg/L	20.0		102	70-130			
Bromoform	19.8	1.0 µg/L	20.0		99	70-130			
Bromomethane	16.8	2.0 µg/L	20.0		84	70-130			
Carbon tetrachloride	19.8	1.0 µg/L	20.0		99	70-130			
Chlorobenzene	20.8	1.0 µg/L	20.0		104	70-130			
Chloroethane	16.1	2.0 µg/L	20.0		80	70-130			
Chloroform	20.8	1.0 µg/L	20.0		104	70-130			
Chloromethane	18.2	2.0 µg/L	20.0		91	70-130			
Dibromochloromethane	19.4	1.0 µg/L	20.0		97	70-130			
1,2-Dibromoethane	20.0	0.3 µg/L	20.0		100	70-130			
Dibromomethane	19.8	1.0 µg/L	20.0		99	70-130			
1,2-Dichlorobenzene	20.2	0.5 µg/L	20.0		101	70-130			
1,3-Dichlorobenzene	19.8	1.0 µg/L	20.0		99	70-130			
1,4-Dichlorobenzene	19.4	1.0 µg/L	20.0		97	70-130			
1,1-Dichloroethane	20.5	1.0 µg/L	20.0		102	70-130			
1,2-Dichloroethane	19.6	1.0 µg/L	20.0		98	70-130			
1,1-Dichloroethene	17.0	1.0 µg/L	20.0		85	70-130			
cis-1,2-Dichloroethene	20.6	1.0 µg/L	20.0		103	70-130			
trans-1,2-Dichloroethene	20.2	1.0 µg/L	20.0		101	70-130			
1,2-Dichloropropane	21.4	1.0 µg/L	20.0		107	70-130			
cis-1,3-Dichloropropene	22.0	1.0 µg/L	20.0		110	70-130			
trans-1,3-Dichloropropene	19.6	1.0 µg/L	20.0		98	70-130			
Ethylbenzene	20.4	1.0 µg/L	20.0		102	70-130			
Methyl tert-butyl ether	19.5	1.0 µg/L	20.0		97	70-130			
Methylene chloride	19.6	3.0 µg/L	20.0		98	70-130			
Styrene	21.2	1.0 µg/L	20.0		106	70-130			
1,1,1,2-Tetrachloroethane	19.0	1.0 µg/L	20.0		95	70-130			
1,1,2,2-Tetrachloroethane	19.8	1.0 µg/L	20.0		99	70-130			
Tetrachloroethene	21.0	1.0 µg/L	20.0		105	70-130			
Toluene	20.2	1.0 µg/L	20.0		101	70-130			
1,1,1-Trichloroethane	20.3	1.0 µg/L	20.0		102	70-130			
1,1,2-Trichloroethane	20.8	1.0 µg/L	20.0		104	70-130			
Trichloroethene	20.7	1.0 µg/L	20.0		104	70-130			
Trichlorofluoromethane	16.5	1.0 µg/L	20.0		83	70-130			
Vinyl chloride	17.6	2.0 µg/L	20.0		88	70-130			
Xylenes (total)	63.4	2.0 µg/L	60.0		106	70-130			
Surrogate: Toluene-d8	26.9	µg/L	25.0		108	70-130			
Surrogate: 4-Bromofluorobenzene	26.4	µg/L	25.0		106	70-130			
Surrogate: 1,4-Dichlorobenzene-d4	27.7	µg/L	25.0		111	70-130			

QC Qualifiers:

RPD Relative percent difference (RPD) of duplicate analysis are outside of control limits for unknown reason(s).
S02 Surrogate recovery outside of control limits. Data accepted based on acceptable recovery of other surrogates.

REPORTED TO PROJECT Allterra Construction
SIRM 460 Stebbings

WORK ORDER REPORTED 6110806
2016-11-18

		6110806-01	6110806-02
		Water	Water
		2016-11-09	2016-11-09
		Weir	SW-1
Anions	Chloride (mg/L)	47.0	55.6
	Fluoride (mg/L)	< 0.10	< 0.10
	Nitrate+Nitrite (as N) (mg/L)	0.324	1.07
	Nitrite (as N) (mg/L)	< 0.005	< 0.005
	Sulfate (mg/L)	66.8	108
General Parameters	Alkalinity, Total (as CaCO3) (mg/L)	52	79
	Alkalinity, Phenolphthalein (as CaCO3) (mg/	< 1	< 1
	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	52	79
	Alkalinity, Carbonate (as CaCO3) (mg/L)	< 1	< 1
	Alkalinity, Hydroxide (as CaCO3) (mg/L)	< 1	< 1
	Chromium, Hexavalent (mg/L)	< 0.001	
	Colour, True (CU)	< 5	< 5
	Conductivity (EC) (uS/cm)	424	580
	pH (pH units)	7.45	7.69
	Solids, Total Dissolved (mg/L)	260	368
	Solids, Total Suspended (mg/L)	21	2
	Turbidity (NTU)	46.8	4.39
Calculated Parameters	Chromium, Trivalent (mg/L)	0.005	
	Hardness, Total (as CaCO3) (mg/L)	136	201
	Nitrate (as N) (mg/L)	0.324	1.07
Dissolved Metals	Aluminum, dissolved (mg/L)	0.011	< 0.005
	Antimony, dissolved (mg/L)	0.0002	0.0003
	Arsenic, dissolved (mg/L)	< 0.0005	< 0.0005
	Barium, dissolved (mg/L)	0.009	0.016
	Beryllium, dissolved (mg/L)	< 0.0001	< 0.0001
	Bismuth, dissolved (mg/L)	< 0.0001	< 0.0001
	Boron, dissolved (mg/L)	0.026	0.029
	Cadmium, dissolved (mg/L)	< 0.00001	< 0.00001
	Calcium, dissolved (mg/L)	42.1	62.0
	Chromium, dissolved (mg/L)	< 0.0005	< 0.0005
	Cobalt, dissolved (mg/L)	< 0.00005	0.00006
	Copper, dissolved (mg/L)	0.0007	0.0013
	Iron, dissolved (mg/L)	< 0.010	< 0.010
	Lead, dissolved (mg/L)	< 0.0001	< 0.0001
	Lithium, dissolved (mg/L)	0.0002	0.0002
	Magnesium, dissolved (mg/L)	7.41	11.3
	Manganese, dissolved (mg/L)	0.0025	0.0017
	Mercury, dissolved (mg/L)	< 0.00002	< 0.00002
	Molybdenum, dissolved (mg/L)	0.0008	0.0015
	Nickel, dissolved (mg/L)	0.0005	0.0007
	Phosphorus, dissolved (mg/L)	< 0.02	< 0.02
	Potassium, dissolved (mg/L)	1.45	1.80
	Selenium, dissolved (mg/L)	< 0.0005	< 0.0005
Silicon, dissolved (mg/L)	3.1	4.7	

REPORTED TO PROJECT Allterra Construction
SIRM 460 Stebbings

WORK ORDER REPORTED 6110806
2016-11-18

		6110806-01	6110806-02
		Water	Water
		2016-11-09	2016-11-09
		Weir	SW-1
Dissolved Metals	Silver, dissolved (mg/L)	< 0.00005	< 0.00005
	Sodium, dissolved (mg/L)	27.8	31.8
	Strontium, dissolved (mg/L)	0.159	0.233
	Sulfur, dissolved (mg/L)	24	38
	Tellurium, dissolved (mg/L)	< 0.0002	< 0.0002
	Thallium, dissolved (mg/L)	< 0.00002	< 0.00002
	Thorium, dissolved (mg/L)	< 0.0001	< 0.0001
	Tin, dissolved (mg/L)	< 0.0002	< 0.0002
	Titanium, dissolved (mg/L)	< 0.005	< 0.005
	Uranium, dissolved (mg/L)	0.00050	0.00074
	Vanadium, dissolved (mg/L)	< 0.001	< 0.001
	Zinc, dissolved (mg/L)	< 0.004	< 0.004
	Zirconium, dissolved (mg/L)	< 0.0001	< 0.0001
	Total Metals	Aluminum, total (mg/L)	2.07
Antimony, total (mg/L)		0.0002	0.0003
Arsenic, total (mg/L)		0.0006	< 0.0005
Barium, total (mg/L)		0.020	0.018
Beryllium, total (mg/L)		< 0.0001	< 0.0001
Bismuth, total (mg/L)		< 0.0001	< 0.0001
Boron, total (mg/L)		0.028	0.033
Cadmium, total (mg/L)		0.00001	< 0.00001
Calcium, total (mg/L)		48.4	71.1
Chromium, total (mg/L)		0.0049	0.0016
Cobalt, total (mg/L)		0.00095	0.00021
Copper, total (mg/L)		0.0055	0.0024
Iron, total (mg/L)		2.21	0.19
Lead, total (mg/L)		0.0011	0.0002
Lithium, total (mg/L)		0.0010	0.0003
Magnesium, total (mg/L)		8.84	12.7
Manganese, total (mg/L)		0.0366	0.0130
Mercury, total (mg/L)		< 0.00002	< 0.00002
Molybdenum, total (mg/L)		0.0009	0.0017
Nickel, total (mg/L)		0.0038	0.0012
Phosphorus, total (mg/L)		0.05	< 0.02
Potassium, total (mg/L)		1.85	2.02
Selenium, total (mg/L)		< 0.0005	< 0.0005
Silicon, total (mg/L)		7.0	5.4
Silver, total (mg/L)		< 0.00005	< 0.00005
Sodium, total (mg/L)		31.1	35.9
Strontium, total (mg/L)		0.177	0.258
Sulfur, total (mg/L)		26	44
Tellurium, total (mg/L)		< 0.0002	< 0.0002
Thallium, total (mg/L)		< 0.00002	< 0.00002
Thorium, total (mg/L)		< 0.0001	< 0.0001
Tin, total (mg/L)		< 0.0002	< 0.0002

REPORTED TO PROJECT Allterra Construction
SIRM 460 Stebbings

WORK ORDER REPORTED 6110806
2016-11-18

		6110806-01	6110806-02
		Water	Water
		2016-11-09	2016-11-09
		Weir	SW-1
Total Metals	Titanium, total (mg/L)	0.106	0.006
	Uranium, total (mg/L)	0.00061	0.00085
	Vanadium, total (mg/L)	0.007	0.001
	Zinc, total (mg/L)	0.008	< 0.004
	Zirconium, total (mg/L)	0.0004	< 0.0001
BCMOE Aggregate Hydrocarbons	EPHw10-19 (ug/L)	< 250	< 250
	EPHw19-32 (ug/L)	< 250	< 250
	LEPHw (ug/L)	< 250	< 250
	HEPHw (ug/L)	< 250	< 250
	Sur: 2-Methylnonane (%)	82	83
Glycols	Propylene glycol (mg/L)	< 5	< 5
	Ethylene glycol (mg/L)	< 5	< 5
	Diethylene glycol (mg/L)	< 5	< 5
	Triethylene glycol (mg/L)	< 5	< 5
	Sur: Tetramethylene Glycol (%)	101	102
Polycyclic Aromatic Hydrocarbons (PAH)	Acenaphthene (ug/L)	< 0.05	< 0.05
	Acenaphthylene (ug/L)	< 0.20	< 0.20
	Acridine (ug/L)	< 0.10	< 0.10
	Anthracene (ug/L)	< 0.01	< 0.01
	Benz (a) anthracene (ug/L)	< 0.01	< 0.01
	Benzo (a) pyrene (ug/L)	< 0.01	< 0.01
	Benzo (b) fluoranthene (ug/L)	< 0.05	< 0.05
	Benzo (g,h,i) perylene (ug/L)	< 0.05	< 0.05
	Benzo (k) fluoranthene (ug/L)	< 0.05	< 0.05
	Chrysene (ug/L)	< 0.05	< 0.05
	Dibenz (a,h) anthracene (ug/L)	< 0.05	< 0.05
	Fluoranthene (ug/L)	< 0.03	< 0.03
	Fluorene (ug/L)	< 0.05	< 0.05
	Indeno (1,2,3-cd) pyrene (ug/L)	< 0.05	< 0.05
	Naphthalene (ug/L)	< 0.20	< 0.20
	Phenanthrene (ug/L)	< 0.10	< 0.10
	Pyrene (ug/L)	< 0.02	< 0.02
	Quinoline (ug/L)	< 0.10	< 0.10
	Sur: Acridine-d9 (%)	55	53
	Sur: Naphthalene-d8 (%)	86	79
Sur: Perylene-d12 (%)	106	109	
Volatile Organic Compounds (VOC)	Benzene (ug/L)	< 0.5	< 0.5
	Bromodichloromethane (ug/L)	< 1.0	< 1.0
	Bromoform (ug/L)	< 1.0	< 1.0
	Bromomethane (ug/L)	< 2.0	< 2.0
	Carbon tetrachloride (ug/L)	< 1.0	< 1.0
	Chlorobenzene (ug/L)	< 1.0	< 1.0
	Chloroethane (ug/L)	< 2.0	< 2.0
	Chloroform (ug/L)	< 1.0	< 1.0
	Chloromethane (ug/L)	< 2.0	< 2.0

REPORTED TO PROJECT Allterra Construction
SIRM 460 Stebbings

WORK ORDER REPORTED 6110806
2016-11-18

		6110806-01	6110806-02
		Water	Water
		2016-11-09	2016-11-09
		Weir	SW-1
Volatile Organic Compounds (VOC)	Dibromochloromethane (ug/L)	< 1.0	< 1.0
	1,2-Dibromoethane (ug/L)	< 0.3	< 0.3
	Dibromomethane (ug/L)	< 1.0	< 1.0
	1,2-Dichlorobenzene (ug/L)	< 0.5	< 0.5
	1,3-Dichlorobenzene (ug/L)	< 1.0	< 1.0
	1,4-Dichlorobenzene (ug/L)	< 1.0	< 1.0
	1,1-Dichloroethane (ug/L)	< 1.0	< 1.0
	1,2-Dichloroethane (ug/L)	< 1.0	< 1.0
	1,1-Dichloroethene (ug/L)	< 1.0	< 1.0
	cis-1,2-Dichloroethene (ug/L)	< 1.0	< 1.0
	trans-1,2-Dichloroethene (ug/L)	< 1.0	< 1.0
	1,2-Dichloropropane (ug/L)	< 1.0	< 1.0
	cis-1,3-Dichloropropene (ug/L)	< 1.0	< 1.0
	trans-1,3-Dichloropropene (ug/L)	< 1.0	< 1.0
	Ethylbenzene (ug/L)	< 1.0	< 1.0
	Methyl tert-butyl ether (ug/L)	< 1.0	< 1.0
	Methylene chloride (ug/L)	< 3.0	< 3.0
	Styrene (ug/L)	< 1.0	< 1.0
	1,1,1,2-Tetrachloroethane (ug/L)	< 1.0	< 1.0
	1,1,2,2-Tetrachloroethane (ug/L)	< 1.0	< 1.0
	Tetrachloroethene (ug/L)	< 1.0	< 1.0
	Toluene (ug/L)	< 1.0	< 1.0
	1,1,1-Trichloroethane (ug/L)	< 1.0	< 1.0
	1,1,2-Trichloroethane (ug/L)	< 1.0	< 1.0
	Trichloroethene (ug/L)	< 1.0	< 1.0
	Trichlorofluoromethane (ug/L)	< 1.0	< 1.0
	Vinyl chloride (ug/L)	< 2.0	< 2.0
	Xylenes (total) (ug/L)	< 2.0	< 2.0
	Sur: Toluene-d8 (%)	102	101
	Sur: 4-Bromofluorobenzene (%)	102	100
Sur: 1,4-Dichlorobenzene-d4 (%)	113	109	

Client Information Allterra Construction 2158 Millstream Road Victoria BC V9B 6H4 Phone: (250) 508-0726	Project Information SIRM 460 Stebbings Number: [none] Sample count: 2 TAT: 5	Laboratory Information CARO Analytical Services #110 - 4011 Viking Way Richmond BC V6V 2K9 Phone: (604) 279-1499 Fax: (604) 279-1599	COC Information Number: B34099 Shipped via: ACE
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#1	1 (Template: 01) 11/09/2016 09:05 Grab / Water	<p style="text-align: center;">Analyses</p> Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (KEL) TAT: 5 Glycols in Water (RMD) TAT: 5 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 Comments: Cr speciation Required pH in Water (KEL) TAT: 5 Solids, Total Dissolved (KEL) TAT: 5 Solids, Total Suspended (KEL) TAT: 5 Turbidity (KEL) TAT: 5 VOC in Water (RMD) TAT: 5	<p style="text-align: center;">Containers</p> C03_250 mL Glass (EPH/PAH) (1) C04_40 mL Vial (VOC Water) (2) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) C19_40 mL Vial (General CG) (2) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1) C09_125 mL Plastic (CN/Cr6) (1)
#2	2 (Template: 01) 11/09/2016 09:20 Grab / Water	<p style="text-align: center;">Analyses</p> Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (KEL) TAT: 5 Glycols in Water (RMD) TAT: 5 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 Comments: Cr speciation Required pH in Water (KEL) TAT: 5 Solids, Total Dissolved (KEL) TAT: 5 Solids, Total Suspended (KEL) TAT: 5 Turbidity (KEL) TAT: 5 VOC in Water (RMD) TAT: 5	<p style="text-align: center;">Containers</p> C03_250 mL Glass (EPH/PAH) (1) C04_40 mL Vial (VOC Water) (2) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) C19_40 mL Vial (General CG) (2) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1) C09_125 mL Plastic (CN/Cr6) (1)

Relinquished by	Date/Time	Accepted by	Date/Time

Client Information Allterra Construction 2158 Millstream Road Victoria BC V9B 6H4 Phone: (250) 508-0726	Project Information SIRM 460 Stebbings Number: [none] Sample count: 2 TAT: 5	Laboratory Information CARO Analytical Services #110 - 4011 Viking Way Richmond BC V6V 2K9 Phone: (604) 279-1499 Fax: (604) 279-1599	COC Information Number: B34099 Shipped via: ACE
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#1	1 (Template: 01) 11/09/2016 09:05 Grab / Water <i>weir</i>	Analyses Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (KEL) TAT: 5 Glycols in Water (RMD) TAT: 5 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 Comments: Cr speciation Required pH in Water (KEL) TAT: 5 Solids, Total Dissolved (KEL) TAT: 5 Solids, Total Suspended (KEL) TAT: 5 Turbidity (KEL) TAT: 5 VOC in Water (RMD) TAT: 5	Containers C03_250 mL Glass (EPH/PAH) (1) C04_40 mL Vial (VOC Water) (2) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) C19_40 mL Vial (General CG) (2) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1) C09_125 mL Plastic (CN/Cr6) (1)
#2	2 (Template: 01) 11/09/2016 09:20 Grab / Water <i>SW-1</i>	Analyses Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (KEL) TAT: 5 Glycols in Water (RMD) TAT: 5 L/HEPH in Water (RMD) TAT: 5 Mercury, diss CVAFS Reg & Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 Comments: Cr speciation Required pH in Water (KEL) TAT: 5 Solids, Total Dissolved (KEL) TAT: 5 Solids, Total Suspended (KEL) TAT: 5 Turbidity (KEL) TAT: 5 VOC in Water (RMD) TAT: 5	Containers C03_250 mL Glass (EPH/PAH) (1) C04_40 mL Vial (VOC Water) (2) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) C19_40 mL Vial (General CG) (2) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1) C09_125 mL Plastic (CN/Cr6) (1)

Relinquished by	Date/Time	Accepted by	Date/Time
		<i>TL Ace 8.2</i>	<i>11/9/16</i>
			<i>10:00</i>

