CERTIFICATE OF ANALYSIS

REPORTED TO	Allterra Construction 2158 Millstream Road Victoria, BC V9B 6H4	**TEL** **FAX**	(250) 508-0726
ATTENTION	Rahim Gaidhar	**WORK ORDER**	6101012
PO NUMBER	P15-06 SIRM	**RECEIVED / TEMP**	2016-10-15 14:00 / 8°C
PROJECT	SIRM 460 Stebbings	**REPORTED**	2016-10-20
PROJECT INFO		**COC NUMBER**	B33061

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.

Authorized By: **Brent Coates, B.Sc.**
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ANALYSIS INFORMATION

REPORTED TO	Allterra Construction	**WORK ORDER**	6101012
PROJECT	SIRM 460 Stebbings	**REPORTED**	2016-10-20

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
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, 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	Kelowna
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

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

REPORTED TO	Allterra Construction	**WORK ORDER**	6101012
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Analyte	Result / *Recovery*	Estimate of Uncertainty	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PEA (6101012-01) [Water] Sampled: 2016-10-14 12:00							F1
Anions							
Chloride	**8.38**	± 0.38	0.10	mg/L	N/A	2016-10-19	
Fluoride	< 0.10		0.10	mg/L	N/A	2016-10-19	
Nitrate+Nitrite (as N)	< 0.010		0.005	mg/L	N/A	2016-10-19	
Nitrite (as N)	< 0.005		0.005	mg/L	N/A	2016-10-17	
Sulfate	**6.4**	± 0.8	1.0	mg/L	N/A	2016-10-19	
General Parameters							
Alkalinity, Total (as CaCO3)	**3**	± 1	1	mg/L	N/A	2016-10-18	
Alkalinity, Phenolphthalein (as CaCO3)	< 1		1	mg/L	N/A	2016-10-18	
Alkalinity, Bicarbonate (as CaCO3)	**3**		1	mg/L	N/A	2016-10-18	
Alkalinity, Carbonate (as CaCO3)	< 1		1	mg/L	N/A	2016-10-18	
Alkalinity, Hydroxide (as CaCO3)	< 1		1	mg/L	N/A	2016-10-18	
Colour, True	**6**	± 4	5	CU	N/A	2016-10-18	HT1
Conductivity (EC)	**53**	± 1	2	µS/cm	N/A	2016-10-18	
pH	**6.49**	± 0.02	0.01	pH units	N/A	2016-10-18	HT2
Solids, Total Dissolved	**79**	± 10	10	mg/L	N/A	2016-10-19	
Solids, Total Suspended	**175**	± 13	2	mg/L	N/A	2016-10-19	
Turbidity	**156**	± 7	0.10	NTU	N/A	2016-10-19	HT1
Calculated Parameters							
Hardness, Total (as CaCO3)	**14.3**		0.50	mg/L	N/A	N/A	
Nitrate (as N)	< 0.015		0.015	mg/L	N/A	N/A	
Dissolved Metals							
Aluminum, dissolved	**0.018**	± 0.004	0.005	mg/L	N/A	2016-10-19	
Antimony, dissolved	**0.0002**	± 0.0001	0.0001	mg/L	N/A	2016-10-19	
Arsenic, dissolved	< 0.0005		0.0005	mg/L	N/A	2016-10-19	
Barium, dissolved	**0.005**	± 0.001	0.005	mg/L	N/A	2016-10-19	
Beryllium, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-10-19	
Bismuth, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-10-19	
Boron, dissolved	**0.010**	± 0.002	0.004	mg/L	N/A	2016-10-19	
Cadmium, dissolved	**0.00003**	± 0.00001	0.00001	mg/L	N/A	2016-10-19	
Calcium, dissolved	**4.1**	± 0.7	0.2	mg/L	N/A	2016-10-19	
Chromium, dissolved	< 0.0005		0.0005	mg/L	N/A	2016-10-19	
Cobalt, dissolved	**0.00007**	± 0.00001	0.00005	mg/L	N/A	2016-10-19	
Copper, dissolved	**0.0006**	± 0.0003	0.0002	mg/L	N/A	2016-10-19	
Iron, dissolved	**0.053**	± 0.015	0.010	mg/L	N/A	2016-10-19	
Lead, dissolved	**0.0002**	± 0.0001	0.0001	mg/L	N/A	2016-10-19	
Lithium, dissolved	**0.0002**	± 0.0001	0.0001	mg/L	N/A	2016-10-19	
Magnesium, dissolved	**1.00**	± 0.18	0.01	mg/L	N/A	2016-10-19	
Manganese, dissolved	**0.0125**	± 0.0017	0.0002	mg/L	N/A	2016-10-19	
Mercury, dissolved	< 0.00002		0.00002	mg/L	N/A	2016-10-19	CT5
Molybdenum, dissolved	**0.0001**	± 0.0001	0.0001	mg/L	N/A	2016-10-19	
Nickel, dissolved	< 0.0002		0.0002	mg/L	N/A	2016-10-19	
Phosphorus, dissolved	< 0.02		0.02	mg/L	N/A	2016-10-19	
Potassium, dissolved	**0.19**	± 0.04	0.02	mg/L	N/A	2016-10-19	

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Analyte	Result / *Recovery*	Estimate of Uncertainty	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PEA (6101012-01) [Water] Sampled: 2016-10-14 12:00, Continued							F1
Dissolved Metals, Continued							
Selenium, dissolved	< 0.0005		0.0005	mg/L	N/A	2016-10-19	
Silicon, dissolved	< 0.5		0.5	mg/L	N/A	2016-10-19	
Silver, dissolved	< 0.00005		0.00005	mg/L	N/A	2016-10-19	
Sodium, dissolved	**5.04**	± 0.86	0.02	mg/L	N/A	2016-10-19	
Strontium, dissolved	**0.022**	± 0.003	0.001	mg/L	N/A	2016-10-19	
Sulfur, dissolved	**1**	± 7	1	mg/L	N/A	2016-10-19	
Tellurium, dissolved	< 0.0002		0.0002	mg/L	N/A	2016-10-19	
Thallium, dissolved	< 0.00002		0.00002	mg/L	N/A	2016-10-19	
Thorium, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-10-19	
Tin, dissolved	< 0.0002		0.0002	mg/L	N/A	2016-10-19	
Titanium, dissolved	< 0.005		0.005	mg/L	N/A	2016-10-19	
Uranium, dissolved	**0.00002**		0.00002	mg/L	N/A	2016-10-19	
Vanadium, dissolved	< 0.001		0.001	mg/L	N/A	2016-10-19	
Zinc, dissolved	**0.012**	± 0.006	0.004	mg/L	N/A	2016-10-19	
Zirconium, dissolved	**0.0001**	± 0.0001	0.0001	mg/L	N/A	2016-10-19	
Total Metals							
Aluminum, total	**8.58**	± 1.74	0.005	mg/L	2016-10-19	2016-10-19	
Antimony, total	**0.0007**	± 0.0001	0.0001	mg/L	2016-10-19	2016-10-19	
Arsenic, total	**0.0016**	± 0.0002	0.0005	mg/L	2016-10-19	2016-10-19	
Barium, total	**0.051**	± 0.009	0.005	mg/L	2016-10-19	2016-10-19	
Beryllium, total	**0.0002**	± 0.0001	0.0001	mg/L	2016-10-19	2016-10-19	
Bismuth, total	< 0.0001		0.0001	mg/L	2016-10-19	2016-10-19	
Boron, total	**0.008**	± 0.002	0.004	mg/L	2016-10-19	2016-10-19	
Cadmium, total	**0.00009**	± 0.00002	0.00001	mg/L	2016-10-19	2016-10-19	
Calcium, total	**4.6**	± 0.6	0.2	mg/L	2016-10-19	2016-10-19	
Chromium, total	**0.0153**	± 0.0023	0.0005	mg/L	2016-10-19	2016-10-19	
Cobalt, total	**0.00409**	± 0.00041	0.00005	mg/L	2016-10-19	2016-10-19	
Copper, total	**0.0198**	± 0.0025	0.0002	mg/L	2016-10-19	2016-10-19	
Iron, total	**8.96**	± 1.96	0.01	mg/L	2016-10-19	2016-10-19	
Lead, total	**0.0307**	± 0.0028	0.0001	mg/L	2016-10-19	2016-10-19	
Lithium, total	**0.0027**	± 0.0005	0.0001	mg/L	2016-10-19	2016-10-19	
Magnesium, total	**2.85**	± 0.48	0.01	mg/L	2016-10-19	2016-10-19	
Manganese, total	**0.166**	± 0.017	0.0002	mg/L	2016-10-19	2016-10-19	
Mercury, total	< 0.00002		0.00002	mg/L	2016-10-16	2016-10-16	
Molybdenum, total	**0.0003**		0.0001	mg/L	2016-10-19	2016-10-19	
Nickel, total	**0.0091**	± 0.0010	0.0002	mg/L	2016-10-19	2016-10-19	
Phosphorus, total	**0.20**	± 14.59	0.02	mg/L	2016-10-19	2016-10-19	
Potassium, total	**0.70**	± 0.10	0.02	mg/L	2016-10-19	2016-10-19	
Selenium, total	< 0.0005		0.0005	mg/L	2016-10-19	2016-10-19	
Silicon, total	**10.2**	± 4.1	0.5	mg/L	2016-10-19	2016-10-19	
Silver, total	< 0.00005		0.00005	mg/L	2016-10-19	2016-10-19	
Sodium, total	**5.05**	± 0.83	0.02	mg/L	2016-10-19	2016-10-19	
Strontium, total	**0.033**	± 0.003	0.001	mg/L	2016-10-19	2016-10-19	
Sulfur, total	< 1		1	mg/L	2016-10-19	2016-10-19	
Tellurium, total	< 0.0002		0.0002	mg/L	2016-10-19	2016-10-19	

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Analyte	Result / *Recovery*	Estimate of Uncertainty	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PEA (6101012-01) [Water] Sampled: 2016-10-14 12:00, Continued							F1
Total Metals, Continued							
Thallium, total	**0.00002**		0.00002	mg/L	2016-10-19	2016-10-19	
Thorium, total	**0.0002**		0.0001	mg/L	2016-10-19	2016-10-19	
Tin, total	**0.0009**	± 0.0002	0.0002	mg/L	2016-10-19	2016-10-19	
Titanium, total	**0.492**	± 0.073	0.005	mg/L	2016-10-19	2016-10-19	
Uranium, total	**0.00025**	± 0.00002	0.00002	mg/L	2016-10-19	2016-10-19	
Vanadium, total	**0.025**	± 0.003	0.001	mg/L	2016-10-19	2016-10-19	
Zinc, total	**0.041**	± 0.007	0.004	mg/L	2016-10-19	2016-10-19	
Zirconium, total	**0.0021**	± 0.0005	0.0001	mg/L	2016-10-19	2016-10-19	
BCMOE Aggregate Hydrocarbons							
EPHw10-19	< 250		250	µg/L	2016-10-17	2016-10-18	
EPHw19-32	**612**	± 572	250	µg/L	2016-10-17	2016-10-18	
LEPHw	< 250		250	µg/L	N/A	N/A	
HEPHw	**612**		250	µg/L	N/A	N/A	
Surrogate: 2-Methylnonane	*76*		*60-140*	%	*2016-10-17*	*2016-10-18*	
Glycols							
Propylene glycol	< 5		5	mg/L	N/A	2016-10-17	
Ethylene glycol	< 5		5	mg/L	N/A	2016-10-17	
Diethylene glycol	< 5		5	mg/L	N/A	2016-10-17	
Triethylene glycol	< 5		5	mg/L	N/A	2016-10-17	
Surrogate: Tetramethylene Glycol	*105*		*66-125*	%	*N/A*	*2016-10-17*	
Polycyclic Aromatic Hydrocarbons (PAH)							
Acenaphthene	< 0.05		0.05	µg/L	2016-10-17	2016-10-18	
Acenaphthylene	< 0.20		0.20	µg/L	2016-10-17	2016-10-18	
Acridine	< 0.10		0.10	µg/L	2016-10-17	2016-10-18	
Anthracene	< 0.01		0.01	µg/L	2016-10-17	2016-10-18	
Benz (a) anthracene	< 0.01		0.01	µg/L	2016-10-17	2016-10-18	
Benzo (a) pyrene	< 0.01		0.01	µg/L	2016-10-17	2016-10-18	
Benzo (b) fluoranthene	< 0.05		0.05	µg/L	2016-10-17	2016-10-18	
Benzo (g,h,i) perylene	< 0.05		0.05	µg/L	2016-10-17	2016-10-18	
Benzo (k) fluoranthene	< 0.05		0.05	µg/L	2016-10-17	2016-10-18	
Chrysene	< 0.05		0.05	µg/L	2016-10-17	2016-10-18	
Dibenz (a,h) anthracene	< 0.05		0.05	µg/L	2016-10-17	2016-10-18	
Fluoranthene	< 0.03		0.03	µg/L	2016-10-17	2016-10-18	
Fluorene	< 0.05		0.05	µg/L	2016-10-17	2016-10-18	
Indeno (1,2,3-cd) pyrene	< 0.05		0.05	µg/L	2016-10-17	2016-10-18	
Naphthalene	< 0.20		0.20	µg/L	2016-10-17	2016-10-18	
Phenanthrene	< 0.10		0.10	µg/L	2016-10-17	2016-10-18	
Pyrene	< 0.02		0.02	µg/L	2016-10-17	2016-10-18	
Quinoline	< 0.10		0.10	µg/L	2016-10-17	2016-10-18	
Surrogate: Acridine-d9	*62*		*60-130*	%	*2016-10-17*	*2016-10-18*	
Surrogate: Naphthalene-d8	*125*		*60-130*	%	*2016-10-17*	*2016-10-18*	
Surrogate: Perylene-d12	*105*		*60-130*	%	*2016-10-17*	*2016-10-18*	
Volatile Organic Compounds (VOC)							

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Analyte	Result / *Recovery*	Estimate of Uncertainty	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PEA (6101012-01) [Water] Sampled: 2016-10-14 12:00, Continued							F1
Volatile Organic Compounds (VOC), Continued							
Benzene	< 0.5		0.5	µg/L	N/A	2016-10-17	
Bromodichloromethane	< 1.0		1.0	µg/L	N/A	2016-10-17	
Bromoform	< 1.0		1.0	µg/L	N/A	2016-10-17	
Bromomethane	< 2.0		2.0	µg/L	N/A	2016-10-17	
Carbon tetrachloride	< 1.0		1.0	µg/L	N/A	2016-10-17	
Chlorobenzene	< 1.0		1.0	µg/L	N/A	2016-10-17	
Chloroethane	< 2.0		2.0	µg/L	N/A	2016-10-17	
Chloroform	< 1.0		1.0	µg/L	N/A	2016-10-17	
Chloromethane	< 2.0		2.0	µg/L	N/A	2016-10-17	
Dibromochloromethane	< 1.0		1.0	µg/L	N/A	2016-10-17	
1,2-Dibromoethane	< 0.3		0.3	µg/L	N/A	2016-10-17	
Dibromomethane	< 1.0		1.0	µg/L	N/A	2016-10-17	
1,2-Dichlorobenzene	< 0.5		0.5	µg/L	N/A	2016-10-17	
1,3-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2016-10-17	
1,4-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2016-10-17	
1,1-Dichloroethane	< 1.0		1.0	µg/L	N/A	2016-10-17	
1,2-Dichloroethane	< 1.0		1.0	µg/L	N/A	2016-10-17	
1,1-Dichloroethene	< 1.0		1.0	µg/L	N/A	2016-10-17	
cis-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2016-10-17	
trans-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2016-10-17	
1,2-Dichloropropane	< 1.0		1.0	µg/L	N/A	2016-10-17	
cis-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2016-10-17	
trans-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2016-10-17	
Ethylbenzene	< 1.0		1.0	µg/L	N/A	2016-10-17	
Methyl tert-butyl ether	< 1.0		1.0	µg/L	N/A	2016-10-17	
Methylene chloride	< 3.0		3.0	µg/L	N/A	2016-10-17	
Styrene	< 1.0		1.0	µg/L	N/A	2016-10-17	
1,1,1,2-Tetrachloroethane	< 1.0		1.0	µg/L	N/A	2016-10-17	
1,1,2,2-Tetrachloroethane	< 1.0		1.0	µg/L	N/A	2016-10-17	
Tetrachloroethene	< 1.0		1.0	µg/L	N/A	2016-10-17	
Toluene	< 1.0		1.0	µg/L	N/A	2016-10-17	
1,1,1-Trichloroethane	< 1.0		1.0	µg/L	N/A	2016-10-17	
1,1,2-Trichloroethane	< 1.0		1.0	µg/L	N/A	2016-10-17	
Trichloroethene	< 1.0		1.0	µg/L	N/A	2016-10-17	
Trichlorofluoromethane	< 1.0		1.0	µg/L	N/A	2016-10-17	
Vinyl chloride	< 2.0		2.0	µg/L	N/A	2016-10-17	
Xylenes (total)	< 2.0		2.0	µg/L	N/A	2016-10-17	
Surrogate: Toluene-d8	*112*		*70-130*	%	*N/A*	*2016-10-17*	
Surrogate: 4-Bromofluorobenzene	*109*		*70-130*	%	*N/A*	*2016-10-17*	
Surrogate: 1,4-Dichlorobenzene-d4	*105*		*70-130*	%	*N/A*	*2016-10-17*	

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Sample / Analysis Qualifiers:

CT5	This sample has been incorrectly preserved for Mercury analysis
F1	The sample was not field-filtered and was therefore filtered through a 0.45 µm membrane in the laboratory and preserved with HNO3 prior to analysis for dissolved metals.
HT1	The sample was prepared and/or analyzed past the recommended holding time.
HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

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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 B6J0790										
Blank (B6J0790-BLK1)				Prepared: 2016-10-20, Analyzed: 2016-10-20						
Nitrate+Nitrite (as N)	< 0.005	0.005	mg/L							
Blank (B6J0790-BLK2)				Prepared: 2016-10-20, Analyzed: 2016-10-20						
Nitrate+Nitrite (as N)	< 0.005	0.005	mg/L							
Blank (B6J0790-BLK3)				Prepared: 2016-10-20, Analyzed: 2016-10-20						
Nitrate+Nitrite (as N)	< 0.005	0.005	mg/L							
Blank (B6J0790-BLK4)				Prepared: 2016-10-20, Analyzed: 2016-10-20						
Nitrate+Nitrite (as N)	< 0.005	0.005	mg/L							
Blank (B6J0790-BLK5)				Prepared: 2016-10-20, Analyzed: 2016-10-20						
Nitrate+Nitrite (as N)	< 0.005	0.005	mg/L							
LCS (B6J0790-BS1)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Nitrate+Nitrite (as N)	0.502	0.005	mg/L	0.500		100	91-108			
LCS (B6J0790-BS2)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Nitrate+Nitrite (as N)	0.500	0.005	mg/L	0.500		100	91-108			
LCS (B6J0790-BS3)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Nitrate+Nitrite (as N)	0.503	0.005	mg/L	0.500		101	91-108			
LCS (B6J0790-BS4)				Prepared: 2016-10-20, Analyzed: 2016-10-20						
Nitrate+Nitrite (as N)	0.510	0.005	mg/L	0.500		102	91-108			
LCS (B6J0790-BS5)				Prepared: 2016-10-20, Analyzed: 2016-10-20						
Nitrate+Nitrite (as N)	0.506	0.005	mg/L	0.500		101	91-108			
Anions, Batch B6J1011										
Blank (B6J1011-BLK1)				Prepared: 2016-10-17, Analyzed: 2016-10-17						
Nitrite (as N)	< 0.005	0.005	mg/L							

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Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Anions, Batch B6J1011, Continued										
LCS (B6J1011-BS1)				Prepared: 2016-10-17, Analyzed: 2016-10-17						
Nitrite (as N)	0.050	0.005	mg/L	0.0500		99	90-110			
Duplicate (B6J1011-DUP1)		**Source: 6101012-01**		Prepared: 2016-10-17, Analyzed: 2016-10-17						
Nitrite (as N)	< 0.005	0.005	mg/L		< 0.005				20	
Matrix Spike (B6J1011-MS1)		**Source: 6101012-01**		Prepared: 2016-10-17, Analyzed: 2016-10-17						
Nitrite (as N)	0.047	0.005	mg/L	0.0500	< 0.005	91	80-120			
Anions, Batch B6J1101										
Blank (B6J1101-BLK1)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Chloride	< 0.10	0.10	mg/L							
Fluoride	< 0.10	0.10	mg/L							
Sulfate	< 1.0	1.0	mg/L							
Blank (B6J1101-BLK2)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Chloride	< 0.10	0.10	mg/L							
Fluoride	< 0.10	0.10	mg/L							
Sulfate	< 1.0	1.0	mg/L							
LCS (B6J1101-BS1)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Chloride	16.4	0.10	mg/L	16.0		102	90-110			
Fluoride	4.01	0.10	mg/L	4.00		100	88-108			
Sulfate	16.1	1.0	mg/L	16.0		101	91-109			
LCS (B6J1101-BS2)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Chloride	16.4	0.10	mg/L	16.0		103	90-110			
Fluoride	3.89	0.10	mg/L	4.00		97	88-108			
Sulfate	16.3	1.0	mg/L	16.0		102	91-109			
BCMOE Aggregate Hydrocarbons, Batch B6J0941										
Blank (B6J0941-BLK1)				Prepared: 2016-10-17, Analyzed: 2016-10-17						
EPHw10-19	< 250	250	µg/L							
EPHw19-32	< 250	250	µg/L							
Surrogate: 2-Methylnonane	*389*		*µg/L*	*444*		*88*	*60-140*			
LCS (B6J0941-BS2)				Prepared: 2016-10-17, Analyzed: 2016-10-17						
EPHw10-19	17800	250	µg/L	15500		115	70-130			
EPHw19-32	20500	250	µg/L	22200		92	70-130			
Surrogate: 2-Methylnonane	*508*		*µg/L*	*444*		*114*	*60-140*			
Dissolved Metals, Batch B6J1138										
Blank (B6J1138-BLK1)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
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							

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Dissolved Metals, Batch B6J1138, Continued										
Blank (B6J1138-BLK1), Continued				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Copper, dissolved	< 0.0002	0.0002	mg/L							
Iron, dissolved	< 0.010	0.010	mg/L							
Lead, dissolved	< 0.0001	0.0001	mg/L							
Lithium, dissolved	< 0.0001	0.0001	mg/L							
Magnesium, dissolved	< 0.01	0.01	mg/L							
Manganese, dissolved	< 0.0002	0.0002	mg/L							
Mercury, dissolved	< 0.00002	0.00002	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							
Reference (B6J1138-SRM1)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Aluminum, dissolved	0.227	0.005	mg/L	0.233		97	58-142			
Antimony, dissolved	0.0471	0.0001	mg/L	0.0430		110	75-125			
Arsenic, dissolved	0.455	0.0005	mg/L	0.438		104	81-119			
Barium, dissolved	3.52	0.005	mg/L	3.35		105	83-117			
Beryllium, dissolved	0.200	0.0001	mg/L	0.213		94	80-120			
Boron, dissolved	1.64	0.004	mg/L	1.74		95	74-117			
Cadmium, dissolved	0.229	0.00001	mg/L	0.224		102	83-117			
Calcium, dissolved	8.1	0.2	mg/L	7.69		106	76-124			
Chromium, dissolved	0.451	0.0005	mg/L	0.437		103	81-119			
Cobalt, dissolved	0.137	0.00005	mg/L	0.128		107	76-124			
Copper, dissolved	0.917	0.0002	mg/L	0.844		109	84-116			
Iron, dissolved	1.38	0.010	mg/L	1.29		107	74-126			
Lead, dissolved	0.122	0.0001	mg/L	0.112		109	72-128			
Lithium, dissolved	0.0946	0.0001	mg/L	0.104		91	60-140			
Magnesium, dissolved	7.04	0.01	mg/L	6.92		102	81-119			
Manganese, dissolved	0.359	0.0002	mg/L	0.345		104	84-116			
Molybdenum, dissolved	0.451	0.0001	mg/L	0.426		106	83-117			
Nickel, dissolved	0.908	0.0002	mg/L	0.840		108	74-126			
Phosphorus, dissolved	0.53	0.02	mg/L	0.495		107	68-132			
Potassium, dissolved	3.23	0.02	mg/L	3.19		101	74-126			
Selenium, dissolved	0.0357	0.0005	mg/L	0.0331		108	70-130			
Sodium, dissolved	19.3	0.02	mg/L	19.1		101	72-128			
Strontium, dissolved	0.915	0.001	mg/L	0.916		100	84-113			
Thallium, dissolved	0.0425	0.00002	mg/L	0.0393		108	57-143			
Uranium, dissolved	0.290	0.00002	mg/L	0.266		109	85-115			
Vanadium, dissolved	0.890	0.001	mg/L	0.869		102	87-113			
Zinc, dissolved	0.897	0.004	mg/L	0.881		102	72-128			

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Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
General Parameters, Batch B6J0956										
Blank (B6J0956-BLK1)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Turbidity	< 0.10	0.10	NTU							
Blank (B6J0956-BLK2)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Turbidity	< 0.10	0.10	NTU							
Blank (B6J0956-BLK3)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Turbidity	< 0.10	0.10	NTU							
LCS (B6J0956-BS1)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Turbidity	39.9	0.10	NTU	40.0		100	90-110			
LCS (B6J0956-BS2)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Turbidity	39.8	0.10	NTU	40.0		100	90-110			
LCS (B6J0956-BS3)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Turbidity	39.9	0.10	NTU	40.0		100	90-110			
General Parameters, Batch B6J1073										
Blank (B6J1073-BLK1)				Prepared: 2016-10-18, Analyzed: 2016-10-18						
Colour, True	< 5	5	CU							
LCS (B6J1073-BS1)				Prepared: 2016-10-18, Analyzed: 2016-10-18						
Colour, True	10	5	CU	10.0		105	85-115			
General Parameters, Batch B6J1091										
Blank (B6J1091-BLK1)				Prepared: 2016-10-18, Analyzed: 2016-10-18						
Alkalinity, Total (as CaCO3)	< 1	1	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1	1	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1	1	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1	1	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1	1	mg/L							
Conductivity (EC)	< 2	2	µS/cm							
LCS (B6J1091-BS1)				Prepared: 2016-10-18, Analyzed: 2016-10-18						
Alkalinity, Total (as CaCO3)	102	1	mg/L	100		102	96-108			
LCS (B6J1091-BS2)				Prepared: 2016-10-18, Analyzed: 2016-10-18						
Conductivity (EC)	1390	2	µS/cm	1410		99	95-104			
Duplicate (B6J1091-DUP1)		**Source: 6101012-01**		Prepared: 2016-10-18, Analyzed: 2016-10-18						
Alkalinity, Total (as CaCO3)	2	1	mg/L		3				10	
Alkalinity, Phenolphthalein (as CaCO3)	< 1	1	mg/L		< 1				10	
Alkalinity, Bicarbonate (as CaCO3)	2	1	mg/L		3				10	
Alkalinity, Carbonate (as CaCO3)	< 1	1	mg/L		< 1				10	
Alkalinity, Hydroxide (as CaCO3)	< 1	1	mg/L		< 1				10	
Conductivity (EC)	53	2	µS/cm		53			< 1	5	
pH	6.44	0.01	pH units		6.49			< 1	5	
Reference (B6J1091-SRM1)				Prepared: 2016-10-18, Analyzed: 2016-10-18						
pH	6.96	0.01	pH units	7.00		99	98-102			
General Parameters, Batch B6J1156										

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Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
General Parameters, Batch B6J1156, Continued										
Blank (B6J1156-BLK1)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Solids, Total Suspended	< 1	2	mg/L							
Blank (B6J1156-BLK2)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Solids, Total Suspended	< 1	2	mg/L							
LCS (B6J1156-BS1)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Solids, Total Suspended	49	2	mg/L	50.0		99	85-110			
LCS (B6J1156-BS2)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Solids, Total Suspended	48	2	mg/L	50.0		96	85-110			
General Parameters, Batch B6J1179										
Blank (B6J1179-BLK1)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Solids, Total Dissolved	< 10	10	mg/L							
LCS (B6J1179-BS1)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Solids, Total Dissolved	240	10	mg/L	240		100	80-120			
Glycols, Batch B6J0933										
Blank (B6J0933-BLK1)				Prepared: 2016-10-17, Analyzed: 2016-10-17						
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	*99.1*		*mg/L*	*95.6*		*104*	*66-125*			
LCS (B6J0933-BS1)				Prepared: 2016-10-17, Analyzed: 2016-10-17						
Propylene glycol	56	5	mg/L	50.0		112	71-114			
Ethylene glycol	50	5	mg/L	49.9		99	82-124			
Diethylene glycol	51	5	mg/L	50.0		102	80-116			
Triethylene glycol	46	5	mg/L	49.8		92	73-120			
Surrogate: Tetramethylene Glycol	*104*		*mg/L*	*95.6*		*109*	*66-125*			
LCS Dup (B6J0933-BSD1)				Prepared: 2016-10-17, Analyzed: 2016-10-17						
Propylene glycol	52	5	mg/L	50.0		105	71-114	6	20	
Ethylene glycol	53	5	mg/L	49.9		105	82-124	6	20	
Diethylene glycol	53	5	mg/L	50.0		105	80-116	3	20	
Triethylene glycol	52	5	mg/L	49.8		105	73-120	13	20	
Surrogate: Tetramethylene Glycol	*104*		*mg/L*	*95.6*		*109*	*66-125*			
Polycyclic Aromatic Hydrocarbons (PAH), Batch B6J0941										
Blank (B6J0941-BLK1)				Prepared: 2016-10-17, Analyzed: 2016-10-17						
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							

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Polycyclic Aromatic Hydrocarbons (PAH), Batch B6J0941, Continued										
Blank (B6J0941-BLK1), Continued				Prepared: 2016-10-17, Analyzed: 2016-10-17						
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							
Pyrene	< 0.02	0.02	µg/L							
Quinoline	< 0.10	0.10	µg/L							
Surrogate: Acridine-d9	*3.37*		*µg/L*	*4.44*		*76*	*60-130*			
Surrogate: Naphthalene-d8	*3.95*		*µg/L*	*4.44*		*89*	*60-130*			
Surrogate: Perylene-d12	*5.01*		*µg/L*	*4.44*		*113*	*60-130*			
LCS (B6J0941-BS1)				Prepared: 2016-10-17, Analyzed: 2016-10-17						
Acenaphthene	4.17	0.05	µg/L	4.44		94	70-130			
Acenaphthylene	3.90	0.20	µg/L	4.44		88	70-130			
Acridine	3.91	0.10	µg/L	4.44		88	60-130			
Anthracene	4.40	0.01	µg/L	4.44		99	70-130			
Benz (a) anthracene	4.40	0.01	µg/L	4.44		99	70-130			
Benzo (a) pyrene	5.16	0.01	µg/L	4.44		116	70-130			
Benzo (b) fluoranthene	4.17	0.05	µg/L	4.44		94	70-130			
Benzo (g,h,i) perylene	5.04	0.05	µg/L	4.44		113	70-130			
Benzo (k) fluoranthene	4.06	0.05	µg/L	4.44		91	70-130			
Chrysene	4.59	0.05	µg/L	4.44		103	70-130			
Dibenz (a,h) anthracene	5.01	0.05	µg/L	4.44		113	70-130			
Fluoranthene	4.70	0.03	µg/L	4.44		106	70-130			
Fluorene	3.96	0.05	µg/L	4.44		89	70-130			
Indeno (1,2,3-cd) pyrene	5.08	0.05	µg/L	4.44		114	70-130			
Naphthalene	4.33	0.20	µg/L	4.44		97	70-130			
Phenanthrene	4.54	0.10	µg/L	4.44		102	70-130			
Pyrene	4.81	0.02	µg/L	4.44		108	70-130			
Quinoline	4.70	0.10	µg/L	4.44		106	70-130			
Surrogate: Acridine-d9	*3.53*		*µg/L*	*4.44*		*79*	*60-130*			
Surrogate: Naphthalene-d8	*4.16*		*µg/L*	*4.44*		*94*	*60-130*			
Surrogate: Perylene-d12	*5.14*		*µg/L*	*4.44*		*116*	*60-130*			
LCS Dup (B6J0941-BSD1)				Prepared: 2016-10-17, Analyzed: 2016-10-17						
Acenaphthene	4.08	0.05	µg/L	4.44		92	70-130	2	20	
Acenaphthylene	3.84	0.20	µg/L	4.44		86	70-130	2	20	
Acridine	3.85	0.10	µg/L	4.44		87	60-130	2	20	
Anthracene	4.27	0.01	µg/L	4.44		96	70-130	3	20	
Benz (a) anthracene	4.27	0.01	µg/L	4.44		96	70-130	3	20	
Benzo (a) pyrene	4.99	0.01	µg/L	4.44		112	70-130	3	20	
Benzo (b) fluoranthene	4.39	0.05	µg/L	4.44		99	70-130	5	20	
Benzo (g,h,i) perylene	4.78	0.05	µg/L	4.44		108	70-130	5	20	
Benzo (k) fluoranthene	3.94	0.05	µg/L	4.44		89	70-130	3	20	
Chrysene	4.57	0.05	µg/L	4.44		103	70-130	< 1	20	
Dibenz (a,h) anthracene	4.76	0.05	µg/L	4.44		107	70-130	5	20	
Fluoranthene	4.59	0.03	µg/L	4.44		103	70-130	2	20	
Fluorene	3.84	0.05	µg/L	4.44		86	70-130	3	20	
Indeno (1,2,3-cd) pyrene	5.17	0.05	µg/L	4.44		116	70-130	2	20	
Naphthalene	4.22	0.20	µg/L	4.44		95	70-130	2	20	
Phenanthrene	4.43	0.10	µg/L	4.44		100	70-130	2	20	
Pyrene	4.51	0.02	µg/L	4.44		101	70-130	6	20	
Quinoline	4.67	0.10	µg/L	4.44		105	70-130	< 1	20	
Surrogate: Acridine-d9	*3.50*		*µg/L*	*4.44*		*79*	*60-130*			
Surrogate: Naphthalene-d8	*4.06*		*µg/L*	*4.44*		*91*	*60-130*			
Surrogate: Perylene-d12	*5.04*		*µg/L*	*4.44*		*113*	*60-130*			

REPORTED TO Allterra Construction
PROJECT SIRM 460 Stebbings

WORK ORDER 6101012
REPORTED 2016-10-20

Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Total Metals, Batch B6J0938										
Blank (B6J0938-BLK1)				Prepared: 2016-10-16, Analyzed: 2016-10-16						
Mercury, total	< 0.00002	0.00002	mg/L							
Reference (B6J0938-SRM1)				Prepared: 2016-10-16, Analyzed: 2016-10-16						
Mercury, total	0.00465	0.00002	mg/L	0.00486		96	50-150			
Total Metals, Batch B6J1135										
Blank (B6J1135-BLK1)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
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							
Matrix Spike (B6J1135-MS1)		**Source: 6101012-01**		Prepared: 2016-10-19, Analyzed: 2016-10-20						
Antimony, total	0.387	0.0001	mg/L	0.400	0.0007	97	84-125			
Arsenic, total	0.213	0.0005	mg/L	0.200	0.0016	106	85-116			
Barium, total	1.11	0.005	mg/L	1.00	0.051	106	87-114			
Beryllium, total	0.102	0.0001	mg/L	0.100	0.0002	102	72-116			
Cadmium, total	0.105	0.00001	mg/L	0.100	0.00009	105	90-112			
Chromium, total	0.438	0.0005	mg/L	0.400	0.0153	106	89-120			
Cobalt, total	0.433	0.00005	mg/L	0.400	0.00409	107	88-120			
Copper, total	0.452	0.0002	mg/L	0.400	0.0198	108	88-125			
Iron, total	11.0	0.01	mg/L	2.00	8.96	100	88-119			
Lead, total	0.244	0.0001	mg/L	0.200	0.0307	107	89-118			

REPORTED TO Allterra Construction
PROJECT SIRM 460 Stebbings

WORK ORDER 6101012
REPORTED 2016-10-20

Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Total Metals, Batch B6J1135, Continued										
Matrix Spike (B6J1135-MS1), Continued		**Source: 6101012-01**		Prepared: 2016-10-19, Analyzed: 2016-10-20						
Manganese, total	0.595	0.0002	mg/L	0.400	0.166	107	84-120			
Nickel, total	0.441	0.0002	mg/L	0.400	0.0091	108	87-119			
Selenium, total	0.103	0.0005	mg/L	0.100	< 0.0005	103	85-113			
Silver, total	0.110	0.00005	mg/L	0.100	< 0.00005	110	89-119			
Thallium, total	0.107	0.00002	mg/L	0.100	0.00002	107	92-119			
Vanadium, total	0.425	0.001	mg/L	0.400	0.025	100	87-117			
Zinc, total	1.10	0.004	mg/L	1.00	0.041	106	85-116			
Reference (B6J1135-SRM1)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Aluminum, total	0.314	0.005	mg/L	0.303		103	81-129			
Antimony, total	0.0538	0.0001	mg/L	0.0511		105	88-114			
Arsenic, total	0.123	0.0005	mg/L	0.118		104	88-114			
Barium, total	0.835	0.005	mg/L	0.823		101	72-104			
Beryllium, total	0.0475	0.0001	mg/L	0.0496		96	76-131			
Boron, total	3.45	0.004	mg/L	3.45		100	75-121			
Cadmium, total	0.0516	0.00001	mg/L	0.0495		104	89-111			
Calcium, total	11.7	0.2	mg/L	11.6		101	86-121			
Chromium, total	0.259	0.0005	mg/L	0.250		104	89-114			
Cobalt, total	0.0420	0.00005	mg/L	0.0377		111	91-113			
Copper, total	0.542	0.0002	mg/L	0.486		111	91-115			
Iron, total	0.55	0.01	mg/L	0.488		113	77-124			
Lead, total	0.219	0.0001	mg/L	0.204		108	92-113			
Lithium, total	0.363	0.0001	mg/L	0.403		90	85-115			
Magnesium, total	4.00	0.01	mg/L	3.79		106	78-120			
Manganese, total	0.114	0.0002	mg/L	0.109		105	90-114			
Molybdenum, total	0.211	0.0001	mg/L	0.198		107	90-111			
Nickel, total	0.273	0.0002	mg/L	0.249		110	90-111			
Phosphorus, total	0.21	0.02	mg/L	0.227		91	85-115			
Potassium, total	7.69	0.02	mg/L	7.21		107	84-113			
Selenium, total	0.133	0.0005	mg/L	0.121		110	85-115			
Sodium, total	7.93	0.02	mg/L	7.54		105	82-123			
Strontium, total	0.388	0.001	mg/L	0.375		103	88-112			
Thallium, total	0.0875	0.00002	mg/L	0.0805		109	91-114			
Uranium, total	0.0343	0.00002	mg/L	0.0306		112	85-120			
Vanadium, total	0.398	0.001	mg/L	0.386		103	86-111			
Zinc, total	2.54	0.004	mg/L	2.49		102	85-111			
Volatile Organic Compounds (VOC), Batch B6J0888										
Blank (B6J0888-BLK1)				Prepared: 2016-10-16, Analyzed: 2016-10-16						
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							

REPORTED TO Allterra Construction
PROJECT SIRM 460 Stebbings

WORK ORDER 6101012
REPORTED 2016-10-20

Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Volatile Organic Compounds (VOC), Batch B6J0888, Continued										
Blank (B6J0888-BLK1), Continued				Prepared: 2016-10-16, Analyzed: 2016-10-16						
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	*27.3*		*µg/L*	*25.0*		*109*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*26.0*		*µg/L*	*25.0*		*104*	*70-130*			
Surrogate: 1,4-Dichlorobenzene-d4	*26.1*		*µg/L*	*25.0*		*104*	*70-130*			
LCS (B6J0888-BS1)				Prepared: 2016-10-16, Analyzed: 2016-10-16						
Benzene	23.6	0.5	µg/L	20.0		118	70-130			
Bromodichloromethane	23.2	1.0	µg/L	20.0		116	70-130			
Bromoform	23.7	1.0	µg/L	20.0		118	70-130			
Bromomethane	23.3	2.0	µg/L	20.0		117	70-130			
Carbon tetrachloride	22.6	1.0	µg/L	20.0		113	70-130			
Chlorobenzene	23.8	1.0	µg/L	20.0		119	70-130			
Chloroethane	19.9	2.0	µg/L	20.0		100	70-130			
Chloroform	23.6	1.0	µg/L	20.0		118	70-130			
Chloromethane	21.7	2.0	µg/L	20.0		108	70-130			
Dibromochloromethane	22.5	1.0	µg/L	20.0		113	70-130			
1,2-Dibromoethane	22.8	0.3	µg/L	20.0		114	70-130			
Dibromomethane	22.5	1.0	µg/L	20.0		112	70-130			
1,2-Dichlorobenzene	24.0	0.5	µg/L	20.0		120	70-130			
1,3-Dichlorobenzene	23.4	1.0	µg/L	20.0		117	70-130			
1,4-Dichlorobenzene	24.4	1.0	µg/L	20.0		122	70-130			
1,1-Dichloroethane	25.6	1.0	µg/L	20.0		128	70-130			
1,2-Dichloroethane	22.7	1.0	µg/L	20.0		113	70-130			
1,1-Dichloroethene	24.0	1.0	µg/L	20.0		120	70-130			
cis-1,2-Dichloroethene	23.9	1.0	µg/L	20.0		119	70-130			
trans-1,2-Dichloroethene	23.8	1.0	µg/L	20.0		119	70-130			
1,2-Dichloropropane	25.0	1.0	µg/L	20.0		125	70-130			
cis-1,3-Dichloropropene	23.3	1.0	µg/L	20.0		117	70-130			
trans-1,3-Dichloropropene	21.6	1.0	µg/L	20.0		108	70-130			
Ethylbenzene	21.4	1.0	µg/L	20.0		107	70-130			
Methyl tert-butyl ether	24.2	1.0	µg/L	20.0		121	70-130			
Methylene chloride	23.6	3.0	µg/L	20.0		118	70-130			
Styrene	22.2	1.0	µg/L	20.0		111	70-130			
1,1,1,2-Tetrachloroethane	22.6	1.0	µg/L	20.0		113	70-130			
1,1,2,2-Tetrachloroethane	23.1	1.0	µg/L	20.0		116	70-130			
Tetrachloroethene	20.0	1.0	µg/L	20.0		100	70-130			

REPORTED TO Allterra Construction
PROJECT SIRM 460 Stebbings

WORK ORDER 6101012
REPORTED 2016-10-20

Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Volatile Organic Compounds (VOC), Batch B6J0888, Continued										
LCS (B6J0888-BS1), Continued				Prepared: 2016-10-16, Analyzed: 2016-10-16						
Toluene	24.0	1.0	µg/L	20.0		120	70-130			
1,1,1-Trichloroethane	23.7	1.0	µg/L	20.0		118	70-130			
1,1,2-Trichloroethane	24.2	1.0	µg/L	20.0		121	70-130			
Trichloroethene	23.0	1.0	µg/L	20.0		115	70-130			
Trichlorofluoromethane	22.6	1.0	µg/L	20.0		113	70-130			
Vinyl chloride	22.9	2.0	µg/L	20.0		114	70-130			
Xylenes (total)	69.0	2.0	µg/L	60.0		115	70-130			
Surrogate: Toluene-d8	*29.5*		*µg/L*	*25.0*		*118*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*28.5*		*µg/L*	*25.0*		*114*	*70-130*			
Surrogate: 1,4-Dichlorobenzene-d4	*32.3*		*µg/L*	*25.0*		*129*	*70-130*			

Submission key D289-JBM-430F	On 10/15/2016 09:38	By Rahim Gaidhar	Page 1/1

Client Information	Project Information	Laboratory Information	COC Information
Allterra Construction 2158 Millstream Road Victoria BC V9B 6H4 Phone: (250) 508-0726	SIRM 460 Stebbings Number: [none] Sample count: 1 TAT: 3	CARO Analytical Services #110 - 4011 Viking Way Richmond BC V6V 2K9 Phone: (604) 279-1499 Fax: (604) 279-1599	Number: B33061 Shipped via: Harbour Air

		Analyses	Containers
#1	PEA (Template: 01) 10/14/2016 12:00 Grab / Water	Alkalinity, all (KEL) TAT: 3 Anions in Water by IC, 5 Analytes (KEL) TAT: 3 Colour, True - 456 nm (KEL) TAT: 3 Conductivity in Water (KEL) TAT: 3 Glycols in Water (RMD) TAT: 3 L/HEPH in Water (RMD) TAT: 3 Mercury, diss CVAFS Reg & Low (RMD) TAT: 3 Comments: extra 1 L bottle supplied for sample Mercury, total CVAFS Reg & Low (RMD) TAT: 3 Metals, dissolved, All, Low (RMD) TAT: 3 Comments: Extra 1 L bottle supplied for sample Metals, total, All, Low (RMD) TAT: 3 pH in Water (KEL) TAT: 3 Solids, Total Dissolved (KEL) TAT: 3 Solids, Total Suspended (KEL) TAT: 3 Turbidity (KEL) TAT: 3 VOC in Water (RMD) TAT: 3	C03_250 mL Glass (EPH/PAH) C04_40 mL Vial (VOC Water) C05_125 mL Plastic (Metals) C06_40 mL Vial (Mercury) C10_125 mL Plastic (H2SO4) C11_1 L Plastic (General) C19_40 mL Vial (General CG) S05_125 mL Plastic (Metals-F) S06_40 mL Vial (Mercury-F)

Relinquished by	Date/Time	Accepted by	Date/Time

EnviroChain® By Promium

Submission key D289-JBM-430F	On 10/15/2016 09:38	By Rahim Gaidhar	Page 1/1

Client Information	Project Information	Laboratory Information	COC Information
Allterra Construction 2158 Millstream Road Victoria BC V9B 6H4 Phone: (250) 508-0726	SIRM 460 Stebbings Number: [none] Sample count: 1 TAT: 3	CARO Analytical Services #110 - 4011 Viking Way Richmond BC V6V 2K9 Phone: (604) 279-1499 Fax: (604) 279-1599	Number: B33061 Shipped via: Harbour Air

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* 6 1 0 1 0 1 2 *

	Accepted by	Date/Time
	H. Air TC	10/15
	7.7°C	14:00