

**REPORTED TO** Allterra Construction  
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**WORK ORDER** 6101990

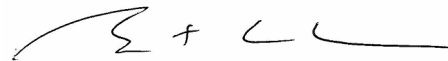
**PO NUMBER** P15-06 SIRM  
**PROJECT** SIRM 460 Stebbings  
**PROJECT INFO**

**RECEIVED / TEMP** 2016-10-28 10:30 / 12°C  
**REPORTED** 2016-11-04  
**COC NUMBER** B33090

**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	Richmond
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 (6101990-01) [Water] Sampled: 2016-10-26 14:30**

**Anions**

Chloride	187	± 9	0.10	mg/L	N/A	2016-11-02	
Fluoride	< 0.10		0.10	mg/L	N/A	2016-11-02	
Nitrate+Nitrite (as N)	0.424	± 0.011	0.005	mg/L	N/A	2016-11-02	
Nitrite (as N)	0.007	± 0.002	0.005	mg/L	N/A	2016-10-29	
Sulfate	202	± 24	1.0	mg/L	N/A	2016-11-02	

**General Parameters**

Alkalinity, Total (as CaCO3)	58	± 3	1	mg/L	N/A	2016-10-31	
Alkalinity, Phenolphthalein (as CaCO3)	< 1		1	mg/L	N/A	2016-10-31	
Alkalinity, Bicarbonate (as CaCO3)	58	± 3	1	mg/L	N/A	2016-10-31	
Alkalinity, Carbonate (as CaCO3)	< 1		1	mg/L	N/A	2016-10-31	
Alkalinity, Hydroxide (as CaCO3)	< 1		1	mg/L	N/A	2016-10-31	
Chromium, Hexavalent	0.001	± 0.002	0.001	mg/L	N/A	2016-11-03	
Colour, True	< 5		5	CU	N/A	2016-10-29	
Conductivity (EC)	1120	± 18	2	µS/cm	N/A	2016-10-31	
pH	7.47	± 0.03	0.01	pH units	N/A	2016-10-29	HT2
Solids, Total Dissolved	721	± 65	10	mg/L	N/A	2016-11-02	
Solids, Total Suspended	27	± 3	2	mg/L	N/A	2016-11-01	
Turbidity	46.4	± 5.8	0.10	NTU	N/A	2016-10-29	

**Calculated Parameters**

Chromium, Trivalent	0.0035		0.0010	mg/L	N/A	N/A	
Hardness, Total (as CaCO3)	356		0.50	mg/L	N/A	N/A	
Nitrate (as N)	0.416		0.015	mg/L	N/A	N/A	

**Dissolved Metals**

Aluminum, dissolved	0.008	± 0.002	0.005	mg/L	N/A	2016-11-02	
Antimony, dissolved	0.0002	± 0.0001	0.0001	mg/L	N/A	2016-11-02	
Arsenic, dissolved	< 0.0005		0.0005	mg/L	N/A	2016-11-02	
Barium, dissolved	0.033	± 0.004	0.005	mg/L	N/A	2016-11-02	
Beryllium, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-02	
Bismuth, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-02	
Boron, dissolved	0.045	± 0.008	0.004	mg/L	N/A	2016-11-02	
Cadmium, dissolved	0.00003	± 0.00001	0.00001	mg/L	N/A	2016-11-02	
Calcium, dissolved	103	± 17	0.2	mg/L	N/A	2016-11-02	
Chromium, dissolved	0.0008	± 0.0002	0.0005	mg/L	N/A	2016-11-02	
Cobalt, dissolved	0.00020	± 0.00002	0.00005	mg/L	N/A	2016-11-02	
Copper, dissolved	0.0010	± 0.0004	0.0002	mg/L	N/A	2016-11-02	
Iron, dissolved	< 0.010		0.010	mg/L	N/A	2016-11-02	
Lead, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-02	
Lithium, dissolved	0.0003	± 0.0001	0.0001	mg/L	N/A	2016-11-02	
Magnesium, dissolved	23.9	± 3.9	0.01	mg/L	N/A	2016-11-02	
Manganese, dissolved	0.180	± 0.020	0.0002	mg/L	N/A	2016-11-02	
Mercury, dissolved	< 0.00002		0.00002	mg/L	2016-11-01	2016-11-02	
Molybdenum, dissolved	0.0016	± 0.0001	0.0001	mg/L	N/A	2016-11-02	
Nickel, dissolved	0.0012	± 0.0003	0.0002	mg/L	N/A	2016-11-02	

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Analyte	Result / Recovery	Estimate of Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
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**Sample ID: Weir (6101990-01) [Water] Sampled: 2016-10-26 14:30, Continued**

***Dissolved Metals, Continued***

Phosphorus, dissolved	< 0.02		0.02	mg/L	N/A	2016-11-02	
Potassium, dissolved	<b>3.00</b>	± 0.42	0.02	mg/L	N/A	2016-11-02	
Selenium, dissolved	< 0.0005		0.0005	mg/L	N/A	2016-11-02	
Silicon, dissolved	<b>3.4</b>	± 1.5	0.5	mg/L	N/A	2016-11-02	
Silver, dissolved	< 0.00005		0.00005	mg/L	N/A	2016-11-02	
Sodium, dissolved	<b>91.5</b>	± 14.0	0.02	mg/L	N/A	2016-11-02	
Strontium, dissolved	<b>0.455</b>	± 0.049	0.001	mg/L	N/A	2016-11-02	
Sulfur, dissolved	<b>77</b>	± 188	1	mg/L	N/A	2016-11-02	
Tellurium, dissolved	< 0.0002		0.0002	mg/L	N/A	2016-11-02	
Thallium, dissolved	< 0.00002		0.00002	mg/L	N/A	2016-11-02	
Thorium, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-02	
Tin, dissolved	< 0.0002		0.0002	mg/L	N/A	2016-11-02	
Titanium, dissolved	< 0.005		0.005	mg/L	N/A	2016-11-02	
Uranium, dissolved	<b>0.00090</b>	± 0.00012	0.00002	mg/L	N/A	2016-11-02	
Vanadium, dissolved	< 0.001		0.001	mg/L	N/A	2016-11-02	
Zinc, dissolved	< 0.004		0.004	mg/L	N/A	2016-11-02	
Zirconium, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-02	

***Total Metals***

Aluminum, total	<b>2.08</b>	± 0.38	0.005	mg/L	2016-11-02	2016-11-03	
Antimony, total	<b>0.0005</b>	± 0.0001	0.0001	mg/L	2016-11-02	2016-11-03	
Arsenic, total	<b>0.0006</b>	± 0.0001	0.0005	mg/L	2016-11-02	2016-11-03	
Barium, total	<b>0.042</b>	± 0.006	0.005	mg/L	2016-11-02	2016-11-03	
Beryllium, total	< 0.0001		0.0001	mg/L	2016-11-02	2016-11-03	
Bismuth, total	< 0.0001		0.0001	mg/L	2016-11-02	2016-11-03	
Boron, total	<b>0.048</b>	± 0.010	0.004	mg/L	2016-11-02	2016-11-03	
Cadmium, total	<b>0.00003</b>	± 0.00002	0.00001	mg/L	2016-11-02	2016-11-03	
Calcium, total	<b>108</b>	± 13	0.2	mg/L	2016-11-02	2016-11-03	
Chromium, total	<b>0.0048</b>	± 0.0006	0.0005	mg/L	2016-11-02	2016-11-03	
Cobalt, total	<b>0.00118</b>	± 0.00011	0.00005	mg/L	2016-11-02	2016-11-03	
Copper, total	<b>0.0054</b>	± 0.0006	0.0002	mg/L	2016-11-02	2016-11-03	
Iron, total	<b>2.27</b>	± 0.45	0.01	mg/L	2016-11-02	2016-11-03	
Lead, total	<b>0.0011</b>	± 0.0001	0.0001	mg/L	2016-11-02	2016-11-03	
Lithium, total	<b>0.0014</b>	± 0.0002	0.0001	mg/L	2016-11-02	2016-11-03	
Magnesium, total	<b>25.3</b>	± 3.8	0.01	mg/L	2016-11-02	2016-11-03	
Manganese, total	<b>0.204</b>	± 0.018	0.0002	mg/L	2016-11-02	2016-11-03	
Mercury, total	< 0.00002		0.00002	mg/L	2016-11-02	2016-11-03	
Molybdenum, total	<b>0.0015</b>	± 0.0001	0.0001	mg/L	2016-11-02	2016-11-03	
Nickel, total	<b>0.0044</b>	± 0.0004	0.0002	mg/L	2016-11-02	2016-11-03	
Phosphorus, total	<b>0.06</b>	± 0.15	0.02	mg/L	2016-11-02	2016-11-03	
Potassium, total	<b>3.04</b>	± 0.33	0.02	mg/L	2016-11-02	2016-11-03	
Selenium, total	< 0.0005		0.0005	mg/L	2016-11-02	2016-11-03	
Silicon, total	<b>7.2</b>	± 2.5	0.5	mg/L	2016-11-02	2016-11-03	
Silver, total	< 0.00005		0.00005	mg/L	2016-11-02	2016-11-03	
Sodium, total	<b>92.7</b>	± 13.7	0.02	mg/L	2016-11-02	2016-11-03	
Strontium, total	<b>0.469</b>	± 0.042	0.001	mg/L	2016-11-02	2016-11-03	

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**Sample ID: Weir (6101990-01) [Water] Sampled: 2016-10-26 14:30, Continued**

**Total Metals, Continued**

Sulfur, total	72	± 287		1 mg/L	2016-11-02	2016-11-03	
Tellurium, total	< 0.0002		0.0002	mg/L	2016-11-02	2016-11-03	
Thallium, total	< 0.00002		0.00002	mg/L	2016-11-02	2016-11-03	
Thorium, total	0.0001		0.0001	mg/L	2016-11-02	2016-11-03	
Tin, total	< 0.0002		0.0002	mg/L	2016-11-02	2016-11-03	
Titanium, total	0.108	± 0.014	0.005	mg/L	2016-11-02	2016-11-03	
Uranium, total	0.00095	± 0.00006	0.00002	mg/L	2016-11-02	2016-11-03	
Vanadium, total	0.006	± 0.001	0.001	mg/L	2016-11-02	2016-11-03	
Zinc, total	0.008	± 0.003	0.004	mg/L	2016-11-02	2016-11-03	
Zirconium, total	0.0009	± 0.0002	0.0001	mg/L	2016-11-02	2016-11-03	

**BCMOE Aggregate Hydrocarbons**

EPHw10-19	< 250		250	µg/L	2016-11-01	2016-11-02	
EPHw19-32	< 250		250	µg/L	2016-11-01	2016-11-02	
LEPHw	< 250		250	µg/L	N/A	N/A	
HEPHw	< 250		250	µg/L	N/A	N/A	
Surrogate: 2-Methylnonane	89		60-140	%	2016-11-01	2016-11-02	

**Glycols**

Propylene glycol	< 5		5	mg/L	N/A	2016-10-31	
Ethylene glycol	< 5		5	mg/L	N/A	2016-10-31	
Diethylene glycol	< 5		5	mg/L	N/A	2016-10-31	
Triethylene glycol	< 5		5	mg/L	N/A	2016-10-31	
Surrogate: Tetramethylene Glycol	100		66-125	%	N/A	2016-10-31	

**Polycyclic Aromatic Hydrocarbons (PAH)**

Acenaphthene	< 0.05		0.05	µg/L	2016-11-01	2016-11-03	
Acenaphthylene	< 0.20		0.20	µg/L	2016-11-01	2016-11-03	
Acridine	< 0.10		0.10	µg/L	2016-11-01	2016-11-03	
Anthracene	< 0.01		0.01	µg/L	2016-11-01	2016-11-03	
Benz (a) anthracene	< 0.01		0.01	µg/L	2016-11-01	2016-11-03	
Benzo (a) pyrene	< 0.01		0.01	µg/L	2016-11-01	2016-11-03	
Benzo (b) fluoranthene	< 0.05		0.05	µg/L	2016-11-01	2016-11-03	
Benzo (g,h,i) perylene	< 0.05		0.05	µg/L	2016-11-01	2016-11-03	
Benzo (k) fluoranthene	< 0.05		0.05	µg/L	2016-11-01	2016-11-03	
Chrysene	< 0.05		0.05	µg/L	2016-11-01	2016-11-03	
Dibenz (a,h) anthracene	< 0.05		0.05	µg/L	2016-11-01	2016-11-03	
Fluoranthene	< 0.03		0.03	µg/L	2016-11-01	2016-11-03	
Fluorene	< 0.05		0.05	µg/L	2016-11-01	2016-11-03	
Indeno (1,2,3-cd) pyrene	< 0.05		0.05	µg/L	2016-11-01	2016-11-03	
Naphthalene	< 0.20		0.20	µg/L	2016-11-01	2016-11-03	
Phenanthrene	< 0.10		0.10	µg/L	2016-11-01	2016-11-03	
Pyrene	< 0.02		0.02	µg/L	2016-11-01	2016-11-03	
Quinoline	< 0.10		0.10	µg/L	2016-11-01	2016-11-03	
Surrogate: Acridine-d9	49		60-130	%	2016-11-01	2016-11-03	S02
Surrogate: Naphthalene-d8	94		60-130	%	2016-11-01	2016-11-03	
Surrogate: Perylene-d12	105		60-130	%	2016-11-01	2016-11-03	

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**Sample ID: Weir (6101990-01) [Water] Sampled: 2016-10-26 14:30, Continued**

<b>Volatile Organic Compounds (VOC)</b>							
Benzene	< 0.5		0.5	µg/L	N/A	2016-11-02	
Bromodichloromethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
Bromoform	< 1.0		1.0	µg/L	N/A	2016-11-02	
Bromomethane	< 2.0		2.0	µg/L	N/A	2016-11-02	
Carbon tetrachloride	< 1.0		1.0	µg/L	N/A	2016-11-02	
Chlorobenzene	< 1.0		1.0	µg/L	N/A	2016-11-02	
Chloroethane	< 2.0		2.0	µg/L	N/A	2016-11-02	
Chloroform	< 1.0		1.0	µg/L	N/A	2016-11-02	
Chloromethane	< 2.0		2.0	µg/L	N/A	2016-11-02	
Dibromochloromethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,2-Dibromoethane	< 0.3		0.3	µg/L	N/A	2016-11-02	
Dibromomethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,2-Dichlorobenzene	< 0.5		0.5	µg/L	N/A	2016-11-02	
1,3-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,4-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,1-Dichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,2-Dichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,1-Dichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-02	
cis-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-02	
trans-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,2-Dichloropropane	< 1.0		1.0	µg/L	N/A	2016-11-02	
cis-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2016-11-02	
trans-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2016-11-02	
Ethylbenzene	< 1.0		1.0	µg/L	N/A	2016-11-02	
Methyl tert-butyl ether	< 1.0		1.0	µg/L	N/A	2016-11-02	
Methylene chloride	< 3.0		3.0	µg/L	N/A	2016-11-02	
Styrene	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,1,1,2-Tetrachloroethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,1,2,2-Tetrachloroethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
Tetrachloroethene	< 1.0		1.0	µg/L	N/A	2016-11-02	
Toluene	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,1,1-Trichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,1,2-Trichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
Trichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-02	
Trichlorofluoromethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
Vinyl chloride	< 2.0		2.0	µg/L	N/A	2016-11-02	
Xylenes (total)	< 2.0		2.0	µg/L	N/A	2016-11-02	
Surrogate: Toluene-d8	90		70-130	%	N/A	2016-11-02	
Surrogate: 4-Bromofluorobenzene	86		70-130	%	N/A	2016-11-02	
Surrogate: 1,4-Dichlorobenzene-d4	111		70-130	%	N/A	2016-11-02	

**Sample ID: SW-1 (6101990-02) [Water] Sampled: 2016-10-26 15:30**

<b>Anions</b>							
Chloride	118 ± 5		0.10	mg/L	N/A	2016-11-02	



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Analyte	Result / Estimate of Recovery	Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
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**Sample ID: SW-1 (6101990-02) [Water] Sampled: 2016-10-26 15:30, Continued**

**Anions, Continued**

Fluoride	< 0.10		0.10	mg/L	N/A	2016-11-02	
Nitrate+Nitrite (as N)	<b>0.788</b>	± 0.021	0.005	mg/L	N/A	2016-11-02	
Nitrite (as N)	< 0.005		0.005	mg/L	N/A	2016-10-29	
Sulfate	<b>184</b>	± 22	1.0	mg/L	N/A	2016-11-02	

**General Parameters**

Alkalinity, Total (as CaCO3)	<b>83</b>	± 5	1	mg/L	N/A	2016-10-31	
Alkalinity, Phenolphthalein (as CaCO3)	< 1		1	mg/L	N/A	2016-10-31	
Alkalinity, Bicarbonate (as CaCO3)	<b>83</b>	± 4	1	mg/L	N/A	2016-10-31	
Alkalinity, Carbonate (as CaCO3)	< 1		1	mg/L	N/A	2016-10-31	
Alkalinity, Hydroxide (as CaCO3)	< 1		1	mg/L	N/A	2016-10-31	
Chromium, Hexavalent	< 0.001		0.001	mg/L	N/A	2016-11-03	CR6
Colour, True	< 5		5	CU	N/A	2016-10-29	
Conductivity (EC)	<b>926</b>	± 15	2	µS/cm	N/A	2016-10-31	
pH	<b>7.20</b>	± 0.03	0.01	pH units	N/A	2016-10-29	HT2
Solids, Total Dissolved	<b>596</b>	± 54	10	mg/L	N/A	2016-11-02	
Solids, Total Suspended	< 2		2	mg/L	N/A	2016-11-01	
Turbidity	<b>1.44</b>	± 0.18	0.10	NTU	N/A	2016-10-29	

**Calculated Parameters**

Chromium, Trivalent	< 0.0010		0.0010	mg/L	N/A	N/A	
Hardness, Total (as CaCO3)	<b>332</b>		0.50	mg/L	N/A	N/A	
Nitrate (as N)	<b>0.788</b>		0.025	mg/L	N/A	N/A	

**Dissolved Metals**

Aluminum, dissolved	< 0.005		0.005	mg/L	N/A	2016-11-02	
Antimony, dissolved	<b>0.0001</b>	± 0.0001	0.0001	mg/L	N/A	2016-11-02	
Arsenic, dissolved	< 0.0005		0.0005	mg/L	N/A	2016-11-02	
Barium, dissolved	<b>0.035</b>	± 0.004	0.005	mg/L	N/A	2016-11-02	
Beryllium, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-02	
Bismuth, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-02	
Boron, dissolved	<b>0.042</b>	± 0.007	0.004	mg/L	N/A	2016-11-02	
Cadmium, dissolved	<b>0.00002</b>	± 0.00001	0.00001	mg/L	N/A	2016-11-02	
Calcium, dissolved	<b>103</b>	± 16	0.2	mg/L	N/A	2016-11-02	
Chromium, dissolved	<b>0.0008</b>	± 0.0002	0.0005	mg/L	N/A	2016-11-02	
Cobalt, dissolved	<b>0.00013</b>	± 0.00002	0.00005	mg/L	N/A	2016-11-02	
Copper, dissolved	<b>0.0016</b>	± 0.0004	0.0002	mg/L	N/A	2016-11-02	
Iron, dissolved	< 0.010		0.010	mg/L	N/A	2016-11-02	
Lead, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-02	
Lithium, dissolved	<b>0.0003</b>	± 0.0001	0.0001	mg/L	N/A	2016-11-02	
Magnesium, dissolved	<b>18.4</b>	± 3.0	0.01	mg/L	N/A	2016-11-02	
Manganese, dissolved	<b>0.0083</b>	± 0.0010	0.0002	mg/L	N/A	2016-11-02	
Mercury, dissolved	< 0.00002		0.00002	mg/L	2016-11-01	2016-11-02	
Molybdenum, dissolved	<b>0.0019</b>	± 0.0002	0.0001	mg/L	N/A	2016-11-02	
Nickel, dissolved	<b>0.0010</b>	± 0.0002	0.0002	mg/L	N/A	2016-11-02	
Phosphorus, dissolved	< 0.02		0.02	mg/L	N/A	2016-11-02	

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Analyte	Result / Recovery	Estimate of Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
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**Sample ID: SW-1 (6101990-02) [Water] Sampled: 2016-10-26 15:30, Continued**

***Dissolved Metals, Continued***

Potassium, dissolved	2.76	± 0.39	0.02	mg/L	N/A	2016-11-02	
Selenium, dissolved	0.0006	± 0.0002	0.0005	mg/L	N/A	2016-11-02	
Silicon, dissolved	5.1	± 2.3	0.5	mg/L	N/A	2016-11-02	
Silver, dissolved	< 0.00005		0.00005	mg/L	N/A	2016-11-02	
Sodium, dissolved	56.8	± 8.7	0.02	mg/L	N/A	2016-11-02	
Strontium, dissolved	0.406	± 0.044	0.001	mg/L	N/A	2016-11-02	
Sulfur, dissolved	67	± 162	1	mg/L	N/A	2016-11-02	
Tellurium, dissolved	< 0.0002		0.0002	mg/L	N/A	2016-11-02	
Thallium, dissolved	< 0.00002		0.00002	mg/L	N/A	2016-11-02	
Thorium, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-02	
Tin, dissolved	< 0.0002		0.0002	mg/L	N/A	2016-11-02	
Titanium, dissolved	< 0.005		0.005	mg/L	N/A	2016-11-02	
Uranium, dissolved	0.00128	± 0.00017	0.00002	mg/L	N/A	2016-11-02	
Vanadium, dissolved	0.001		0.001	mg/L	N/A	2016-11-02	
Zinc, dissolved	< 0.004		0.004	mg/L	N/A	2016-11-02	
Zirconium, dissolved	< 0.0001		0.0001	mg/L	N/A	2016-11-02	

***Total Metals***

Aluminum, total	0.072	± 0.015	0.005	mg/L	2016-11-02	2016-11-03	
Antimony, total	0.0004	± 0.0001	0.0001	mg/L	2016-11-02	2016-11-03	
Arsenic, total	< 0.0005		0.0005	mg/L	2016-11-02	2016-11-03	
Barium, total	0.035	± 0.005	0.005	mg/L	2016-11-02	2016-11-03	
Beryllium, total	< 0.0001		0.0001	mg/L	2016-11-02	2016-11-03	
Bismuth, total	< 0.0001		0.0001	mg/L	2016-11-02	2016-11-03	
Boron, total	0.046	± 0.009	0.004	mg/L	2016-11-02	2016-11-03	
Cadmium, total	0.00002	± 0.00002	0.00001	mg/L	2016-11-02	2016-11-03	
Calcium, total	109	± 13	0.2	mg/L	2016-11-02	2016-11-03	
Chromium, total	0.0008	± 0.0001	0.0005	mg/L	2016-11-02	2016-11-03	
Cobalt, total	0.00036	± 0.00003	0.00005	mg/L	2016-11-02	2016-11-03	
Copper, total	0.0022	± 0.0003	0.0002	mg/L	2016-11-02	2016-11-03	
Iron, total	0.08	± 0.02	0.01	mg/L	2016-11-02	2016-11-03	
Lead, total	< 0.0001		0.0001	mg/L	2016-11-02	2016-11-03	
Lithium, total	0.0004	± 0.0001	0.0001	mg/L	2016-11-02	2016-11-03	
Magnesium, total	19.3	± 2.9	0.01	mg/L	2016-11-02	2016-11-03	
Manganese, total	0.0420	± 0.0038	0.0002	mg/L	2016-11-02	2016-11-03	
Mercury, total	< 0.00002		0.00002	mg/L	2016-11-02	2016-11-03	
Molybdenum, total	0.0019	± 0.0002	0.0001	mg/L	2016-11-02	2016-11-03	
Nickel, total	0.0015	± 0.0002	0.0002	mg/L	2016-11-02	2016-11-03	
Phosphorus, total	0.02	± 0.06	0.02	mg/L	2016-11-02	2016-11-03	
Potassium, total	2.65	± 0.29	0.02	mg/L	2016-11-02	2016-11-03	
Selenium, total	0.0006	± 0.0001	0.0005	mg/L	2016-11-02	2016-11-03	
Silicon, total	5.0	± 1.8	0.5	mg/L	2016-11-02	2016-11-03	
Silver, total	< 0.00005		0.00005	mg/L	2016-11-02	2016-11-03	
Sodium, total	58.9	± 8.7	0.02	mg/L	2016-11-02	2016-11-03	
Strontium, total	0.417	± 0.037	0.001	mg/L	2016-11-02	2016-11-03	
Sulfur, total	60	± 239	1	mg/L	2016-11-02	2016-11-03	

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Analyte	Result / Estimate of Recovery Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
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**Sample ID: SW-1 (6101990-02) [Water] Sampled: 2016-10-26 15:30, Continued**

**Total Metals, Continued**

Tellurium, total	< 0.0002	0.0002	mg/L	2016-11-02	2016-11-03	
Thallium, total	< 0.00002	0.00002	mg/L	2016-11-02	2016-11-03	
Thorium, total	< 0.0001	0.0001	mg/L	2016-11-02	2016-11-03	
Tin, total	< 0.0002	0.0002	mg/L	2016-11-02	2016-11-03	
Titanium, total	< 0.005	0.005	mg/L	2016-11-02	2016-11-03	
Uranium, total	<b>0.00130</b> ± 0.00008	0.00002	mg/L	2016-11-02	2016-11-03	
Vanadium, total	<b>0.001</b>	0.001	mg/L	2016-11-02	2016-11-03	
Zinc, total	< 0.004	0.004	mg/L	2016-11-02	2016-11-03	
Zirconium, total	< 0.0001	0.0001	mg/L	2016-11-02	2016-11-03	

**BCMOC Aggregate Hydrocarbons**

EPHw10-19	< 250	250	µg/L	2016-11-01	2016-11-02	
EPHw19-32	< 250	250	µg/L	2016-11-01	2016-11-02	
LEPHw	< 250	250	µg/L	N/A	N/A	
HEPHw	< 250	250	µg/L	N/A	N/A	
<i>Surrogate: 2-Methylnonane</i>	91	60-140	%	2016-11-01	2016-11-02	

**Glycols**

Propylene glycol	< 5	5	mg/L	N/A	2016-10-31	
Ethylene glycol	< 5	5	mg/L	N/A	2016-10-31	
Diethylene glycol	< 5	5	mg/L	N/A	2016-10-31	
Triethylene glycol	< 5	5	mg/L	N/A	2016-10-31	
<i>Surrogate: Tetramethylene Glycol</i>	97	66-125	%	N/A	2016-10-31	

**Polycyclic Aromatic Hydrocarbons (PAH)**

Acenaphthene	< 0.05	0.05	µg/L	2016-11-01	2016-11-03	
Acenaphthylene	< 0.20	0.20	µg/L	2016-11-01	2016-11-03	
Acridine	< 0.10	0.10	µg/L	2016-11-01	2016-11-03	
Anthracene	< 0.01	0.01	µg/L	2016-11-01	2016-11-03	
Benz (a) anthracene	< 0.01	0.01	µg/L	2016-11-01	2016-11-03	
Benzo (a) pyrene	< 0.01	0.01	µg/L	2016-11-01	2016-11-03	
Benzo (b) fluoranthene	< 0.05	0.05	µg/L	2016-11-01	2016-11-03	
Benzo (g,h,i) perylene	< 0.05	0.05	µg/L	2016-11-01	2016-11-03	
Benzo (k) fluoranthene	< 0.05	0.05	µg/L	2016-11-01	2016-11-03	
Chrysene	< 0.05	0.05	µg/L	2016-11-01	2016-11-03	
Dibenz (a,h) anthracene	< 0.05	0.05	µg/L	2016-11-01	2016-11-03	
Fluoranthene	< 0.03	0.03	µg/L	2016-11-01	2016-11-03	
Fluorene	< 0.05	0.05	µg/L	2016-11-01	2016-11-03	
Indeno (1,2,3-cd) pyrene	< 0.05	0.05	µg/L	2016-11-01	2016-11-03	
Naphthalene	< 0.20	0.20	µg/L	2016-11-01	2016-11-03	
Phenanthrene	< 0.10	0.10	µg/L	2016-11-01	2016-11-03	
Pyrene	< 0.02	0.02	µg/L	2016-11-01	2016-11-03	
Quinoline	< 0.10	0.10	µg/L	2016-11-01	2016-11-03	
<i>Surrogate: Acridine-d9</i>	52	60-130	%	2016-11-01	2016-11-03	S02
<i>Surrogate: Naphthalene-d8</i>	86	60-130	%	2016-11-01	2016-11-03	
<i>Surrogate: Perylene-d12</i>	95	60-130	%	2016-11-01	2016-11-03	

**REPORTED TO PROJECT** Allterra Construction  
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Analyte	Result / Recovery	Estimate of Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
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**Sample ID: SW-1 (6101990-02) [Water] Sampled: 2016-10-26 15:30, Continued**

<i>Volatile Organic Compounds (VOC)</i>							
Benzene	< 0.5		0.5	µg/L	N/A	2016-11-02	
Bromodichloromethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
Bromoform	< 1.0		1.0	µg/L	N/A	2016-11-02	
Bromomethane	< 2.0		2.0	µg/L	N/A	2016-11-02	
Carbon tetrachloride	< 1.0		1.0	µg/L	N/A	2016-11-02	
Chlorobenzene	< 1.0		1.0	µg/L	N/A	2016-11-02	
Chloroethane	< 2.0		2.0	µg/L	N/A	2016-11-02	
Chloroform	< 1.0		1.0	µg/L	N/A	2016-11-02	
Chloromethane	< 2.0		2.0	µg/L	N/A	2016-11-02	
Dibromochloromethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,2-Dibromoethane	< 0.3		0.3	µg/L	N/A	2016-11-02	
Dibromomethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,2-Dichlorobenzene	< 0.5		0.5	µg/L	N/A	2016-11-02	
1,3-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,4-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,1-Dichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,2-Dichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,1-Dichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-02	
cis-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-02	
trans-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,2-Dichloropropane	< 1.0		1.0	µg/L	N/A	2016-11-02	
cis-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2016-11-02	
trans-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2016-11-02	
Ethylbenzene	< 1.0		1.0	µg/L	N/A	2016-11-02	
Methyl tert-butyl ether	< 1.0		1.0	µg/L	N/A	2016-11-02	
Methylene chloride	< 3.0		3.0	µg/L	N/A	2016-11-02	
Styrene	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,1,1,2-Tetrachloroethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,1,2,2-Tetrachloroethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
Tetrachloroethene	< 1.0		1.0	µg/L	N/A	2016-11-02	
Toluene	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,1,1-Trichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
1,1,2-Trichloroethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
Trichloroethene	< 1.0		1.0	µg/L	N/A	2016-11-02	
Trichlorofluoromethane	< 1.0		1.0	µg/L	N/A	2016-11-02	
Vinyl chloride	< 2.0		2.0	µg/L	N/A	2016-11-02	
Xylenes (total)	< 2.0		2.0	µg/L	N/A	2016-11-02	
Surrogate: Toluene-d8	91		70-130	%	N/A	2016-11-02	
Surrogate: 4-Bromofluorobenzene	88		70-130	%	N/A	2016-11-02	
Surrogate: 1,4-Dichlorobenzene-d4	114		70-130	%	N/A	2016-11-02	

**REPORTED TO** Allterra Construction  
**PROJECT** SIRM 460 Stebbings

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**REPORTED** 2016-11-04

**Sample / Analysis Qualifiers:**

CR6 Hexavalent chromium result adjusted to correspond to the total chromium result.  
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
<b>Anions, Batch B6J2043</b>									
<b>Blank (B6J2043-BLK1)</b>			Prepared: 2016-10-29, Analyzed: 2016-10-29						
Nitrite (as N)	< 0.005	0.005 mg/L							
<b>LCS (B6J2043-BS1)</b>			Prepared: 2016-10-29, Analyzed: 2016-10-29						
Nitrite (as N)	0.049	0.005 mg/L	0.0500		98	90-110			
<b>Duplicate (B6J2043-DUP1)</b>			<b>Source: 6101990-01</b> Prepared: 2016-10-29, Analyzed: 2016-10-29						
Nitrite (as N)	0.008	0.005 mg/L		0.007				20	
<b>Matrix Spike (B6J2043-MS1)</b>			<b>Source: 6101990-02</b> Prepared: 2016-10-29, Analyzed: 2016-10-29						
Nitrite (as N)	0.047	0.005 mg/L	0.0500	< 0.005	94	80-120			
<b>Anions, Batch B6K0011</b>									
<b>Blank (B6K0011-BLK1)</b>			Prepared: 2016-11-02, Analyzed: 2016-11-02						
Nitrate+Nitrite (as N)	< 0.010	0.005 mg/L							
<b>Blank (B6K0011-BLK2)</b>			Prepared: 2016-11-02, Analyzed: 2016-11-02						
Nitrate+Nitrite (as N)	< 0.010	0.005 mg/L							
<b>LCS (B6K0011-BS1)</b>			Prepared: 2016-11-02, Analyzed: 2016-11-02						
Nitrate+Nitrite (as N)	0.497	0.005 mg/L	0.500		99	91-108			
<b>LCS (B6K0011-BS2)</b>			Prepared: 2016-11-02, Analyzed: 2016-11-02						
Nitrate+Nitrite (as N)	0.505	0.005 mg/L	0.500		101	91-108			
<b>Anions, Batch B6K0074</b>									
<b>Blank (B6K0074-BLK1)</b>			Prepared: 2016-11-02, Analyzed: 2016-11-02						
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**

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6101990  
2016-11-04

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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**Anions, Batch B6K0074, Continued**

**Blank (B6K0074-BLK2)**

Prepared: 2016-11-03, Analyzed: 2016-11-03

Chloride	< 0.10	0.10 mg/L							
Fluoride	< 0.10	0.10 mg/L							
Sulfate	< 1.0	1.0 mg/L							

**LCS (B6K0074-BS1)**

Prepared: 2016-11-02, Analyzed: 2016-11-02

Chloride	15.1	0.10 mg/L	16.0		95	90-110			
Fluoride	3.79	0.10 mg/L	4.00		95	88-108			
Sulfate	16.3	1.0 mg/L	16.0		102	91-109			

**LCS (B6K0074-BS2)**

Prepared: 2016-11-03, Analyzed: 2016-11-03

Chloride	15.5	0.10 mg/L	16.0		97	90-110			
Fluoride	3.91	0.10 mg/L	4.00		98	88-108			
Sulfate	15.8	1.0 mg/L	16.0		99	91-109			

**BCMOE Aggregate Hydrocarbons, Batch B6K0069**

**Blank (B6K0069-BLK1)**

Prepared: 2016-11-01, Analyzed: 2016-11-02

EPHw10-19	< 250	250 µg/L							
EPHw19-32	< 250	250 µg/L							
Surrogate: 2-Methylnonane	338	µg/L	444		76	60-140			

**LCS (B6K0069-BS2)**

Prepared: 2016-11-01, Analyzed: 2016-11-02

EPHw10-19	15300	250 µg/L	15500		99	70-130			
EPHw19-32	17800	250 µg/L	22200		80	70-130			
Surrogate: 2-Methylnonane	445	µg/L	444		100	60-140			

**Dissolved Metals, Batch B6K0044**

**Blank (B6K0044-BLK1)**

Prepared: 2016-11-01, Analyzed: 2016-11-02

Mercury, dissolved	< 0.00002	0.00002 mg/L							
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**Blank (B6K0044-BLK2)**

Prepared: 2016-11-01, Analyzed: 2016-11-02

Mercury, dissolved	< 0.00002	0.00002 mg/L							
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**Reference (B6K0044-SRM1)**

Prepared: 2016-11-01, Analyzed: 2016-11-02

Mercury, dissolved	0.00466	0.00002 mg/L	0.00486		96	50-150			
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**Reference (B6K0044-SRM2)**

Prepared: 2016-11-01, Analyzed: 2016-11-02

Mercury, dissolved	0.00467	0.00002 mg/L	0.00486		96	50-150			
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**Dissolved Metals, Batch B6K0108**

**Blank (B6K0108-BLK1)**

Prepared: 2016-11-02, Analyzed: 2016-11-02

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							

**APPENDIX 1: QUALITY CONTROL DATA**

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6101990  
2016-11-04

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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**Dissolved Metals, Batch B6K0108, Continued**

**Blank (B6K0108-BLK1), Continued**

Prepared: 2016-11-02, Analyzed: 2016-11-02

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							
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 (B6K0108-DUP1)**

Source: 6101990-01

Prepared: 2016-11-02, Analyzed: 2016-11-02

Aluminum, dissolved	0.007	0.005 mg/L		0.008				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	0.033	0.005 mg/L		0.033		< 1		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	0.046	0.004 mg/L		0.045		2		13	
Cadmium, dissolved	0.00003	0.00001 mg/L		0.00003				27	
Calcium, dissolved	103	0.2 mg/L		103		< 1		8	
Chromium, dissolved	0.0010	0.0005 mg/L		0.0008				14	
Cobalt, dissolved	0.00020	0.00005 mg/L		0.00020				10	
Copper, dissolved	0.0012	0.0002 mg/L		0.0010		18		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	0.0003	0.0001 mg/L		0.0003				14	
Magnesium, dissolved	24.0	0.01 mg/L		23.9		< 1		6	
Manganese, dissolved	0.181	0.0002 mg/L		0.180		< 1		9	
Molybdenum, dissolved	0.0016	0.0001 mg/L		0.0016		2		19	
Nickel, dissolved	0.0022	0.0002 mg/L		0.0012		60	21	RPD	
Phosphorus, dissolved	< 0.02	0.02 mg/L		0.02				14	
Potassium, dissolved	3.00	0.02 mg/L		3.00		< 1		8	
Selenium, dissolved	< 0.0005	0.0005 mg/L		< 0.0005				36	
Silicon, dissolved	3.4	0.5 mg/L		3.4		2		12	
Silver, dissolved	< 0.00005	0.00005 mg/L		< 0.00005				20	
Sodium, dissolved	90.7	0.02 mg/L		91.5		< 1		6	
Strontium, dissolved	0.461	0.001 mg/L		0.455		1		6	
Sulfur, dissolved	76	1 mg/L		77		1		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	



## APPENDIX 1: QUALITY CONTROL DATA

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6101990  
2016-11-04

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>Dissolved Metals, Batch B6K0108, Continued</b>									
<b>Duplicate (B6K0108-DUP1), Continued</b>		<b>Source: 6101990-01</b>		Prepared: 2016-11-02, Analyzed: 2016-11-02					
Uranium, dissolved	0.00090	0.00002 mg/L		0.00090			< 1	14	
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	
<b>Matrix Spike (B6K0108-MS1)</b>		<b>Source: 6101990-02</b>		Prepared: 2016-11-02, Analyzed: 2016-11-02					
Antimony, dissolved	0.360	0.0001 mg/L	0.400	0.0001	90	76-114			
Arsenic, dissolved	0.201	0.0005 mg/L	0.200	< 0.0005	100	81-115			
Barium, dissolved	1.05	0.005 mg/L	1.00	0.035	101	80-113			
Beryllium, dissolved	0.0906	0.0001 mg/L	0.100	< 0.0001	91	69-109			
Cadmium, dissolved	0.0955	0.00001 mg/L	0.100	0.00002	96	83-110			
Chromium, dissolved	0.397	0.0005 mg/L	0.400	0.0008	99	85-115			
Cobalt, dissolved	0.394	0.00005 mg/L	0.400	0.00013	99	86-114			
Copper, dissolved	0.399	0.0002 mg/L	0.400	0.0016	99	82-119			
Iron, dissolved	1.97	0.010 mg/L	2.00	< 0.010	98	80-116			
Lead, dissolved	0.201	0.0001 mg/L	0.200	< 0.0001	101	83-112			
Manganese, dissolved	0.395	0.0002 mg/L	0.400	0.0083	97	62-131			
Nickel, dissolved	0.381	0.0002 mg/L	0.400	0.0010	95	81-115			
Selenium, dissolved	0.107	0.0005 mg/L	0.100	0.0006	107	79-115			
Silver, dissolved	0.106	0.00005 mg/L	0.100	< 0.00005	106	69-121			
Thallium, dissolved	0.100	0.00002 mg/L	0.100	< 0.00002	100	84-115			
Vanadium, dissolved	0.395	0.001 mg/L	0.400	0.001	99	83-113			
Zinc, dissolved	0.962	0.004 mg/L	1.00	< 0.004	96	82-115			
<b>Reference (B6K0108-SRM1)</b>		Prepared: 2016-11-02, Analyzed: 2016-11-02							
Aluminum, dissolved	0.229	0.005 mg/L	0.233		98	58-142			
Antimony, dissolved	0.0467	0.0001 mg/L	0.0430		109	75-125			
Arsenic, dissolved	0.461	0.0005 mg/L	0.438		105	81-119			
Barium, dissolved	3.62	0.005 mg/L	3.35		108	83-117			
Beryllium, dissolved	0.209	0.0001 mg/L	0.213		98	80-120			
Boron, dissolved	1.77	0.004 mg/L	1.74		102	74-117			
Cadmium, dissolved	0.230	0.00001 mg/L	0.224		103	83-117			
Calcium, dissolved	7.7	0.2 mg/L	7.69		100	76-124			
Chromium, dissolved	0.443	0.0005 mg/L	0.437		101	81-119			
Cobalt, dissolved	0.132	0.00005 mg/L	0.128		103	76-124			
Copper, dissolved	0.888	0.0002 mg/L	0.844		105	84-116			
Iron, dissolved	1.30	0.010 mg/L	1.29		101	74-126			
Lead, dissolved	0.120	0.0001 mg/L	0.112		107	72-128			
Lithium, dissolved	0.103	0.0001 mg/L	0.104		99	60-140			
Magnesium, dissolved	6.94	0.01 mg/L	6.92		100	81-119			
Manganese, dissolved	0.348	0.0002 mg/L	0.345		101	84-116			
Molybdenum, dissolved	0.431	0.0001 mg/L	0.426		101	83-117			
Nickel, dissolved	0.861	0.0002 mg/L	0.840		102	74-126			
Phosphorus, dissolved	0.50	0.02 mg/L	0.495		101	68-132			
Potassium, dissolved	3.20	0.02 mg/L	3.19		100	74-126			
Selenium, dissolved	0.0383	0.0005 mg/L	0.0331		116	70-130			
Sodium, dissolved	18.8	0.02 mg/L	19.1		98	72-128			
Strontium, dissolved	0.911	0.001 mg/L	0.916		99	84-113			
Thallium, dissolved	0.0417	0.00002 mg/L	0.0393		106	57-143			
Uranium, dissolved	0.274	0.00002 mg/L	0.266		103	85-115			
Vanadium, dissolved	0.873	0.001 mg/L	0.869		100	87-113			
Zinc, dissolved	0.917	0.004 mg/L	0.881		104	72-128			

**General Parameters, Batch B6J1998**

**APPENDIX 1: QUALITY CONTROL DATA**

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6101990  
2016-11-04

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>General Parameters, Batch B6J1998, Continued</b>									
<b>Blank (B6J1998-BLK1)</b>			Prepared: 2016-10-29, Analyzed: 2016-10-29						
Turbidity	< 0.10	0.10 NTU							
<b>LCS (B6J1998-BS1)</b>			Prepared: 2016-10-29, Analyzed: 2016-10-29						
Turbidity	10.3	0.10 NTU	10.0		103	82-115			
<b>General Parameters, Batch B6J2005</b>									
<b>Blank (B6J2005-BLK1)</b>			Prepared: 2016-10-29, Analyzed: 2016-10-29						
Colour, True	< 5	5 CU							
<b>LCS (B6J2005-BS1)</b>			Prepared: 2016-10-29, Analyzed: 2016-10-29						
Colour, True	10	5 CU	10.0		97	85-115			
<b>General Parameters, Batch B6J2007</b>									
<b>Reference (B6J2007-SRM1)</b>			Prepared: 2016-10-29, Analyzed: 2016-10-29						
pH	7.05	0.01 pH units	7.02		100	98-102			
<b>General Parameters, Batch B6J2018</b>									
<b>Blank (B6J2018-BLK1)</b>			Prepared: 2016-10-30, Analyzed: 2016-10-30						
Alkalinity, Total (as CaCO <sub>3</sub> )	< 1	1 mg/L							
Alkalinity, Phenolphthalein (as CaCO <sub>3</sub> )	< 1	1 mg/L							
Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	< 1	1 mg/L							
Alkalinity, Carbonate (as CaCO <sub>3</sub> )	< 1	1 mg/L							
Alkalinity, Hydroxide (as CaCO <sub>3</sub> )	< 1	1 mg/L							
Conductivity (EC)	< 1	2 µS/cm							
<b>Blank (B6J2018-BLK2)</b>			Prepared: 2016-10-30, Analyzed: 2016-10-30						
Alkalinity, Total (as CaCO <sub>3</sub> )	< 1	1 mg/L							
Alkalinity, Phenolphthalein (as CaCO <sub>3</sub> )	< 1	1 mg/L							
Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	< 1	1 mg/L							
Alkalinity, Carbonate (as CaCO <sub>3</sub> )	< 1	1 mg/L							
Alkalinity, Hydroxide (as CaCO <sub>3</sub> )	< 1	1 mg/L							
Conductivity (EC)	< 1	2 µS/cm							
<b>Blank (B6J2018-BLK3)</b>			Prepared: 2016-10-31, Analyzed: 2016-10-31						
Alkalinity, Total (as CaCO <sub>3</sub> )	< 1	1 mg/L							
Alkalinity, Phenolphthalein (as CaCO <sub>3</sub> )	< 1	1 mg/L							
Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	< 1	1 mg/L							
Alkalinity, Carbonate (as CaCO <sub>3</sub> )	< 1	1 mg/L							
Alkalinity, Hydroxide (as CaCO <sub>3</sub> )	< 1	1 mg/L							
Conductivity (EC)	1	2 µS/cm							BLK
<b>LCS (B6J2018-BS1)</b>			Prepared: 2016-10-30, Analyzed: 2016-10-30						
Alkalinity, Total (as CaCO <sub>3</sub> )	104	1 mg/L	100		104	96-108			
<b>LCS (B6J2018-BS2)</b>			Prepared: 2016-10-30, Analyzed: 2016-10-30						
Conductivity (EC)	1390	2 µS/cm	1410		99	95-104			
<b>LCS (B6J2018-BS3)</b>			Prepared: 2016-10-30, Analyzed: 2016-10-30						
Alkalinity, Total (as CaCO <sub>3</sub> )	100	1 mg/L	100		100	96-108			
<b>LCS (B6J2018-BS4)</b>			Prepared: 2016-10-30, Analyzed: 2016-10-30						
Conductivity (EC)	1400	2 µS/cm	1410		99	95-104			

## APPENDIX 1: QUALITY CONTROL DATA

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6101990  
2016-11-04

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>General Parameters, Batch B6J2018, Continued</b>									
<b>LCS (B6J2018-BS5)</b>			Prepared: 2016-10-31, Analyzed: 2016-10-31						
Alkalinity, Total (as CaCO3)	101	1 mg/L	100		101	96-108			
<b>LCS (B6J2018-BS6)</b>			Prepared: 2016-10-31, Analyzed: 2016-10-31						
Conductivity (EC)	1410	2 µS/cm	1410		100	95-104			
<b>General Parameters, Batch B6K0036</b>									
<b>Blank (B6K0036-BLK1)</b>			Prepared: 2016-11-01, Analyzed: 2016-11-01						
Solids, Total Suspended	< 1	2 mg/L							
<b>Blank (B6K0036-BLK2)</b>			Prepared: 2016-11-01, Analyzed: 2016-11-01						
Solids, Total Suspended	< 1	2 mg/L							
<b>LCS (B6K0036-BS1)</b>			Prepared: 2016-11-01, Analyzed: 2016-11-01						
Solids, Total Suspended	48	2 mg/L	50.0		97	85-110			
<b>LCS (B6K0036-BS2)</b>			Prepared: 2016-11-01, Analyzed: 2016-11-01						
Solids, Total Suspended	50	2 mg/L	50.0		99	85-110			
<b>General Parameters, Batch B6K0176</b>									
<b>Blank (B6K0176-BLK1)</b>			Prepared: 2016-11-02, Analyzed: 2016-11-02						
Solids, Total Dissolved	< 10	10 mg/L							
<b>LCS (B6K0176-BS1)</b>			Prepared: 2016-11-02, Analyzed: 2016-11-02						
Solids, Total Dissolved	242	10 mg/L	240		101	80-120			
<b>General Parameters, Batch B6K0279</b>									
<b>Blank (B6K0279-BLK1)</b>			Prepared: 2016-11-03, Analyzed: 2016-11-03						
Chromium, Hexavalent	< 0.001	0.001 mg/L							
<b>LCS (B6K0279-BS1)</b>			Prepared: 2016-11-03, Analyzed: 2016-11-03						
Chromium, Hexavalent	0.111	0.001 mg/L	0.100		111	90-111			
<b>Duplicate (B6K0279-DUP1)</b>			<b>Source: 6101990-01</b>		Prepared: 2016-11-03, Analyzed: 2016-11-03				
Chromium, Hexavalent	0.001	0.001 mg/L		0.001					7
<b>Glycols, Batch B6J2029</b>									
<b>Blank (B6J2029-BLK1)</b>			Prepared: 2016-10-31, Analyzed: 2016-10-31						
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	91.5	mg/L	95.6		96	66-125			
<b>LCS (B6J2029-BS1)</b>			Prepared: 2016-10-31, Analyzed: 2016-10-31						
Propylene glycol	45	5 mg/L	50.0		91	71-114			
Ethylene glycol	47	5 mg/L	49.9		95	82-124			
Diethylene glycol	49	5 mg/L	50.0		98	80-116			
Triethylene glycol	49	5 mg/L	49.8		99	73-120			
Surrogate: Tetramethylene Glycol	96.4	mg/L	95.6		101	66-125			
<b>LCS Dup (B6J2029-BSD1)</b>			Prepared: 2016-10-31, Analyzed: 2016-10-31						
Propylene glycol	49	5 mg/L	50.0		97	71-114	7	20	

**APPENDIX 1: QUALITY CONTROL DATA**

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6101990  
2016-11-04

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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**Glycols, Batch B6J2029, Continued**

**LCS Dup (B6J2029-BSD1), Continued**

Prepared: 2016-10-31, Analyzed: 2016-10-31

Ethylene glycol	52	5 mg/L	49.9		105	82-124	10	20	
Diethylene glycol	54	5 mg/L	50.0		108	80-116	10	20	
Triethylene glycol	54	5 mg/L	49.8		109	73-120	10	20	
Surrogate: Tetramethylene Glycol	103	mg/L	95.6		108	66-125			

**Polycyclic Aromatic Hydrocarbons (PAH), Batch B6K0069**

**Blank (B6K0069-BLK1)**

Prepared: 2016-11-01, Analyzed: 2016-11-03

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							
Pyrene	< 0.02	0.02 µg/L							
Quinoline	< 0.10	0.10 µg/L							
Surrogate: Acridine-d9	1.95	µg/L	4.44		44	60-130			S02
Surrogate: Naphthalene-d8	4.02	µg/L	4.44		90	60-130			
Surrogate: Perylene-d12	4.23	µg/L	4.44		95	60-130			

**LCS (B6K0069-BS1)**

Prepared: 2016-11-01, Analyzed: 2016-11-02

Acenaphthene	4.16	0.05 µg/L	4.44		94	70-130			
Acenaphthylene	4.16	0.20 µg/L	4.44		94	70-130			
Acridine	3.86	0.10 µg/L	4.44		87	60-130			
Anthracene	4.29	0.01 µg/L	4.44		97	70-130			
Benz (a) anthracene	4.39	0.01 µg/L	4.44		99	70-130			
Benzo (a) pyrene	4.46	0.01 µg/L	4.44		100	70-130			
Benzo (b) fluoranthene	4.40	0.05 µg/L	4.44		99	70-130			
Benzo (g,h,i) perylene	4.86	0.05 µg/L	4.44		109	70-130			
Benzo (k) fluoranthene	4.32	0.05 µg/L	4.44		97	70-130			
Chrysene	4.36	0.05 µg/L	4.44		98	70-130			
Dibenz (a,h) anthracene	4.62	0.05 µg/L	4.44		104	70-130			
Fluoranthene	4.64	0.03 µg/L	4.44		104	70-130			
Fluorene	3.98	0.05 µg/L	4.44		90	70-130			
Indeno (1,2,3-cd) pyrene	5.10	0.05 µg/L	4.44		115	70-130			
Naphthalene	4.37	0.20 µg/L	4.44		98	70-130			
Phenanthrene	4.38	0.10 µg/L	4.44		99	70-130			
Pyrene	4.69	0.02 µg/L	4.44		106	70-130			
Quinoline	5.04	0.10 µg/L	4.44		113	70-130			
Surrogate: Acridine-d9	2.49	µg/L	4.44		56	60-130			S02
Surrogate: Naphthalene-d8	4.27	µg/L	4.44		96	60-130			
Surrogate: Perylene-d12	4.64	µg/L	4.44		105	60-130			

**LCS Dup (B6K0069-BSD1)**

Prepared: 2016-11-01, Analyzed: 2016-11-03

Acenaphthene	4.16	0.05 µg/L	4.44		94	70-130	< 1	20	
Acenaphthylene	4.12	0.20 µg/L	4.44		93	70-130	1	20	

**APPENDIX 1: QUALITY CONTROL DATA**

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6101990  
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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>Polycyclic Aromatic Hydrocarbons (PAH), Batch B6K0069, Continued</b>									
<b>LCS Dup (B6K0069-BSD1), Continued</b>					Prepared: 2016-11-01, Analyzed: 2016-11-03				
Acridine	3.84	0.10 µg/L	4.44		86	60-130	< 1	20	
Anthracene	4.28	0.01 µg/L	4.44		96	70-130	< 1	20	
Benz (a) anthracene	4.34	0.01 µg/L	4.44		98	70-130	1	20	
Benzo (a) pyrene	4.42	0.01 µg/L	4.44		99	70-130	1	20	
Benzo (b) fluoranthene	4.41	0.05 µg/L	4.44		99	70-130	< 1	20	
Benzo (g,h,i) perylene	4.84	0.05 µg/L	4.44		109	70-130	< 1	20	
Benzo (k) fluoranthene	4.33	0.05 µg/L	4.44		97	70-130	< 1	20	
Chrysene	4.28	0.05 µg/L	4.44		96	70-130	2	20	
Dibenz (a,h) anthracene	4.55	0.05 µg/L	4.44		102	70-130	2	20	
Fluoranthene	4.66	0.03 µg/L	4.44		105	70-130	< 1	20	
Fluorene	3.95	0.05 µg/L	4.44		89	70-130	< 1	20	
Indeno (1,2,3-cd) pyrene	5.02	0.05 µg/L	4.44		113	70-130	2	20	
Naphthalene	4.41	0.20 µg/L	4.44		99	70-130	< 1	20	
Phenanthrene	4.36	0.10 µg/L	4.44		98	70-130	< 1	20	
Pyrene	4.68	0.02 µg/L	4.44		105	70-130	< 1	20	
Quinoline	5.06	0.10 µg/L	4.44		114	70-130	< 1	20	
Surrogate: Acridine-d9	2.43	µg/L	4.44		55	60-130			S02
Surrogate: Naphthalene-d8	4.22	µg/L	4.44		95	60-130			
Surrogate: Perylene-d12	4.47	µg/L	4.44		101	60-130			

**Total Metals, Batch B6K0143**

<b>Blank (B6K0143-BLK1)</b>					Prepared: 2016-11-02, Analyzed: 2016-11-03				
Mercury, total	< 0.00002	0.00002 mg/L							
<b>Reference (B6K0143-SRM1)</b>					Prepared: 2016-11-02, Analyzed: 2016-11-03				
Mercury, total	0.00480	0.00002 mg/L	0.00486		99	50-150			

**Total Metals, Batch B6K0159**

<b>Blank (B6K0159-BLK1)</b>					Prepared: 2016-11-02, Analyzed: 2016-11-03				
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							

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**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

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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 B6K0159, Continued**

**Blank (B6K0159-BLK1), Continued**

Prepared: 2016-11-02, Analyzed: 2016-11-03

Sodium, total	0.03	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 (B6K0159-DUP1)**

Source: 6101990-01

Prepared: 2016-11-02, Analyzed: 2016-11-03

Aluminum, total	2.13	0.005 mg/L		2.08			2	29	
Antimony, total	0.0005	0.0001 mg/L		0.0005			8	31	
Arsenic, total	0.0006	0.0005 mg/L		0.0006				15	
Barium, total	0.044	0.005 mg/L		0.042			5	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	0.053	0.004 mg/L		0.048			9	29	
Cadmium, total	0.00004	0.00001 mg/L		0.00003				33	
Calcium, total	110	0.2 mg/L		108			2	12	
Chromium, total	0.0047	0.0005 mg/L		0.0048			2	12	
Cobalt, total	0.00121	0.00005 mg/L		0.00118			2	13	
Copper, total	0.0062	0.0002 mg/L		0.0054			14	37	
Iron, total	2.32	0.01 mg/L		2.27			2	18	
Lead, total	0.0011	0.0001 mg/L		0.0011			3	23	
Lithium, total	0.0015	0.0001 mg/L		0.0014			1	19	
Magnesium, total	25.0	0.01 mg/L		25.3			1	10	
Manganese, total	0.204	0.0002 mg/L		0.204			< 1	13	
Molybdenum, total	0.0015	0.0001 mg/L		0.0015			< 1	20	
Nickel, total	0.0044	0.0002 mg/L		0.0044			< 1	28	
Phosphorus, total	0.06	0.02 mg/L		0.06				24	
Potassium, total	3.08	0.02 mg/L		3.04			1	13	
Selenium, total	0.0005	0.0005 mg/L		< 0.0005				24	
Silicon, total	7.2	0.5 mg/L		7.2			< 1	11	
Silver, total	< 0.00005	0.00005 mg/L		< 0.00005				18	
Sodium, total	92.3	0.02 mg/L		92.7			< 1	10	
Strontium, total	0.473	0.001 mg/L		0.469			< 1	9	
Sulfur, total	71	1 mg/L		72			2	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	0.114	0.005 mg/L		0.108			5	32	
Uranium, total	0.00095	0.00002 mg/L		0.00095			< 1	14	
Vanadium, total	0.006	0.001 mg/L		0.006			< 1	17	
Zinc, total	0.009	0.004 mg/L		0.008				8	
Zirconium, total	0.0007	0.0001 mg/L		0.0009			31	60	

**Matrix Spike (B6K0159-MS1)**

Source: 6101990-02

Prepared: 2016-11-02, Analyzed: 2016-11-03

Antimony, total	0.414	0.0001 mg/L	0.400	0.0004	103	84-125			
Arsenic, total	0.205	0.0005 mg/L	0.200	< 0.0005	102	85-116			
Barium, total	1.05	0.005 mg/L	1.00	0.035	101	87-114			
Beryllium, total	0.0939	0.0001 mg/L	0.100	< 0.0001	94	72-116			
Cadmium, total	0.101	0.00001 mg/L	0.100	0.00002	101	90-112			

**APPENDIX 1: QUALITY CONTROL DATA**

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SIRM 460 Stebbings

**WORK ORDER REPORTED** 6101990  
2016-11-04

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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**Total Metals, Batch B6K0159, Continued**

Matrix Spike (B6K0159-MS1), Continued	Source: 6101990-02		Prepared: 2016-11-02, Analyzed: 2016-11-03						
Chromium, total	0.415	0.0005 mg/L	0.400	0.0008	104	89-120			
Cobalt, total	0.437	0.00005 mg/L	0.400	0.00036	109	88-120			
Copper, total	0.443	0.0002 mg/L	0.400	0.0022	110	88-125			
Iron, total	2.26	0.01 mg/L	2.00	0.08	109	88-119			
Lead, total	0.221	0.0001 mg/L	0.200	0.0001	111	89-118			
Manganese, total	0.444	0.0002 mg/L	0.400	0.0420	101	84-120			
Nickel, total	0.417	0.0002 mg/L	0.400	0.0015	104	87-119			
Selenium, total	0.114	0.0005 mg/L	0.100	0.0006	113	85-113			
Silver, total	0.111	0.00005 mg/L	0.100	< 0.00005	111	89-119			
Thallium, total	0.111	0.00002 mg/L	0.100	< 0.00002	111	92-119			
Vanadium, total	0.399	0.001 mg/L	0.400	0.001	99	87-117			
Zinc, total	1.02	0.004 mg/L	1.00	< 0.004	102	85-116			

Reference (B6K0159-SRM1)	Prepared: 2016-11-02, Analyzed: 2016-11-03								
Aluminum, total	0.293	0.005 mg/L	0.303		97	81-129			
Antimony, total	0.0499	0.0001 mg/L	0.0511		98	88-114			
Arsenic, total	0.115	0.0005 mg/L	0.118		97	88-114			
Barium, total	0.776	0.005 mg/L	0.823		94	72-104			
Beryllium, total	0.0463	0.0001 mg/L	0.0496		93	76-131			
Boron, total	3.29	0.004 mg/L	3.45		95	75-121			
Cadmium, total	0.0488	0.00001 mg/L	0.0495		99	89-111			
Calcium, total	11.5	0.2 mg/L	11.6		99	86-121			
Chromium, total	0.247	0.0005 mg/L	0.250		99	89-114			
Cobalt, total	0.0385	0.00005 mg/L	0.0377		102	91-113			
Copper, total	0.529	0.0002 mg/L	0.486		109	91-115			
Iron, total	0.51	0.01 mg/L	0.488		104	77-124			
Lead, total	0.220	0.0001 mg/L	0.204		108	92-113			
Lithium, total	0.381	0.0001 mg/L	0.403		95	85-115			
Magnesium, total	3.85	0.01 mg/L	3.79		102	78-120			
Manganese, total	0.105	0.0002 mg/L	0.109		96	90-114			
Molybdenum, total	0.195	0.0001 mg/L	0.198		99	90-111			
Nickel, total	0.250	0.0002 mg/L	0.249		100	90-111			
Phosphorus, total	0.23	0.02 mg/L	0.227		101	85-115			
Potassium, total	7.19	0.02 mg/L	7.21		100	84-113			
Selenium, total	0.128	0.0005 mg/L	0.121		106	85-115			
Sodium, total	7.76	0.02 mg/L	7.54		103	82-123			
Strontium, total	0.374	0.001 mg/L	0.375		100	88-112			
Thallium, total	0.0881	0.00002 mg/L	0.0805		109	91-114			
Uranium, total	0.0299	0.00002 mg/L	0.0306		98	85-120			
Vanadium, total	0.370	0.001 mg/L	0.386		96	86-111			
Zinc, total	2.47	0.004 mg/L	2.49		99	85-111			

**Volatile Organic Compounds (VOC), Batch B6J2070**

Blank (B6J2070-BLK1)	Prepared: 2016-11-02, Analyzed: 2016-11-02								
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							

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**WORK ORDER REPORTED** 6101990  
2016-11-04

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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**Volatile Organic Compounds (VOC), Batch B6J2070, Continued**

**Blank (B6J2070-BLK1), Continued**

Prepared: 2016-11-02, Analyzed: 2016-11-02

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	23.1	µg/L	25.0		92	70-130			
Surrogate: 4-Bromofluorobenzene	22.0	µg/L	25.0		88	70-130			
Surrogate: 1,4-Dichlorobenzene-d4	28.5	µg/L	25.0		114	70-130			

**LCS (B6J2070-BS1)**

Prepared: 2016-11-02, Analyzed: 2016-11-02

Benzene	22.5	0.5 µg/L	20.0		113	70-130			
Bromodichloromethane	23.2	1.0 µg/L	20.0		116	70-130			
Bromoform	18.6	1.0 µg/L	20.0		93	70-130			
Bromomethane	24.4	2.0 µg/L	20.0		122	70-130			
Carbon tetrachloride	21.9	1.0 µg/L	20.0		109	70-130			
Chlorobenzene	23.5	1.0 µg/L	20.0		117	70-130			
Chloroethane	23.5	2.0 µg/L	20.0		117	70-130			
Chloroform	23.3	1.0 µg/L	20.0		116	70-130			
Chloromethane	22.6	2.0 µg/L	20.0		113	70-130			
Dibromochloromethane	20.0	1.0 µg/L	20.0		100	70-130			
1,2-Dibromoethane	20.1	0.3 µg/L	20.0		100	70-130			
Dibromomethane	17.9	1.0 µg/L	20.0		89	70-130			
1,2-Dichlorobenzene	24.6	0.5 µg/L	20.0		123	70-130			
1,3-Dichlorobenzene	26.4	1.0 µg/L	20.0		132	70-130			SPK
1,4-Dichlorobenzene	26.2	1.0 µg/L	20.0		131	70-130			SPK
1,1-Dichloroethane	24.0	1.0 µg/L	20.0		120	70-130			
1,2-Dichloroethane	20.6	1.0 µg/L	20.0		103	70-130			
1,1-Dichloroethene	22.6	1.0 µg/L	20.0		113	70-130			
cis-1,2-Dichloroethene	22.7	1.0 µg/L	20.0		114	70-130			
trans-1,2-Dichloroethene	23.6	1.0 µg/L	20.0		118	70-130			
1,2-Dichloropropane	23.2	1.0 µg/L	20.0		116	70-130			
cis-1,3-Dichloropropene	19.0	1.0 µg/L	20.0		95	70-130			
trans-1,3-Dichloropropene	17.2	1.0 µg/L	20.0		86	70-130			
Ethylbenzene	22.6	1.0 µg/L	20.0		113	70-130			
Methyl tert-butyl ether	17.3	1.0 µg/L	20.0		87	70-130			



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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<i>Volatile Organic Compounds (VOC), Batch B6J2070, Continued</i>									
<b>LCS (B6J2070-BS1), Continued</b>					Prepared: 2016-11-02, Analyzed: 2016-11-02				
Methylene chloride	23.1	3.0 µg/L	20.0		116	70-130			
Styrene	21.4	1.0 µg/L	20.0		107	70-130			
1,1,1,2-Tetrachloroethane	23.8	1.0 µg/L	20.0		119	70-130			
1,1,2,2-Tetrachloroethane	15.8	1.0 µg/L	20.0		79	70-130			
Tetrachloroethene	27.6	1.0 µg/L	20.0		138	70-130			SPK
Toluene	23.2	1.0 µg/L	20.0		116	70-130			
1,1,1-Trichloroethane	24.4	1.0 µg/L	20.0		122	70-130			
1,1,2-Trichloroethane	22.1	1.0 µg/L	20.0		110	70-130			
Trichloroethene	29.0	1.0 µg/L	20.0		145	70-130			SPK
Trichlorofluoromethane	26.4	1.0 µg/L	20.0		132	70-130			SPK
Vinyl chloride	22.1	2.0 µg/L	20.0		110	70-130			
Xylenes (total)	69.5	2.0 µg/L	60.0		116	70-130			
Surrogate: Toluene-d8	24.2	µg/L	25.0		97	70-130			
Surrogate: 4-Bromofluorobenzene	27.0	µg/L	25.0		108	70-130			
Surrogate: 1,4-Dichlorobenzene-d4	35.1	µg/L	25.0		141	70-130			S02

**QC Qualifiers:**

- BLK Analyte concentration in the Method Blank is above the Method Reporting Limit (MRL).
- 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.
- SPK The recovery of this analyte was outside of established control limits.

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2016-11-04

		6101990-01	6101990-02
		Water	Water
		2016-10-26	2016-10-26
		Weir	SW-1
Anions	Chloride (mg/L)	187	118
	Fluoride (mg/L)	< 0.10	< 0.10
	Nitrate+Nitrite (as N) (mg/L)	0.424	0.788
	Nitrite (as N) (mg/L)	0.007	< 0.005
	Sulfate (mg/L)	202	184
General Parameters	Alkalinity, Total (as CaCO3) (mg/L)	58	83
	Alkalinity, Phenolphthalein (as CaCO3) (mg/	< 1	< 1
	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	58	83
	Alkalinity, Carbonate (as CaCO3) (mg/L)	< 1	< 1
	Alkalinity, Hydroxide (as CaCO3) (mg/L)	< 1	< 1
	Chromium, Hexavalent (mg/L)	0.001	< 0.001
	Colour, True (CU)	< 5	< 5
	Conductivity (EC) (uS/cm)	1120	926
	pH (pH units)	7.47	7.20
	Solids, Total Dissolved (mg/L)	721	596
	Solids, Total Suspended (mg/L)	27	< 2
	Turbidity (NTU)	46.4	1.44
Calculated Parameters	Chromium, Trivalent (mg/L)	0.0035	< 0.0010
	Hardness, Total (as CaCO3) (mg/L)	356	332
	Nitrate (as N) (mg/L)	0.416	0.788
Dissolved Metals	Aluminum, dissolved (mg/L)	0.008	< 0.005
	Antimony, dissolved (mg/L)	0.0002	0.0001
	Arsenic, dissolved (mg/L)	< 0.0005	< 0.0005
	Barium, dissolved (mg/L)	0.033	0.035
	Beryllium, dissolved (mg/L)	< 0.0001	< 0.0001
	Bismuth, dissolved (mg/L)	< 0.0001	< 0.0001
	Boron, dissolved (mg/L)	0.045	0.042
	Cadmium, dissolved (mg/L)	0.00003	0.00002
	Calcium, dissolved (mg/L)	103	103
	Chromium, dissolved (mg/L)	0.0008	0.0008
	Cobalt, dissolved (mg/L)	0.00020	0.00013
	Copper, dissolved (mg/L)	0.0010	0.0016
	Iron, dissolved (mg/L)	< 0.010	< 0.010
	Lead, dissolved (mg/L)	< 0.0001	< 0.0001
	Lithium, dissolved (mg/L)	0.0003	0.0003
	Magnesium, dissolved (mg/L)	23.9	18.4
	Manganese, dissolved (mg/L)	0.180	0.0083
	Mercury, dissolved (mg/L)	< 0.00002	< 0.00002
	Molybdenum, dissolved (mg/L)	0.0016	0.0019
	Nickel, dissolved (mg/L)	0.0012	0.0010
	Phosphorus, dissolved (mg/L)	< 0.02	< 0.02
	Potassium, dissolved (mg/L)	3.00	2.76
	Selenium, dissolved (mg/L)	< 0.0005	0.0006
	Silicon, dissolved (mg/L)	3.4	5.1

**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 6101990  
2016-11-04

		6101990-01	6101990-02
		Water	Water
		2016-10-26	2016-10-26
		Weir	SW-1
Dissolved Metals	Silver, dissolved (mg/L)	< 0.00005	< 0.00005
	Sodium, dissolved (mg/L)	91.5	56.8
	Strontium, dissolved (mg/L)	0.455	0.406
	Sulfur, dissolved (mg/L)	77	67
	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)	0.00090	0.00128
	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)	2.08
Antimony, total (mg/L)		0.0005	0.0004
Arsenic, total (mg/L)		0.0006	< 0.0005
Barium, total (mg/L)		0.042	0.035
Beryllium, total (mg/L)		< 0.0001	< 0.0001
Bismuth, total (mg/L)		< 0.0001	< 0.0001
Boron, total (mg/L)		0.048	0.046
Cadmium, total (mg/L)		0.00003	0.00002
Calcium, total (mg/L)		108	109
Chromium, total (mg/L)		0.0048	0.0008
Cobalt, total (mg/L)		0.00118	0.00036
Copper, total (mg/L)		0.0054	0.0022
Iron, total (mg/L)		2.27	0.08
Lead, total (mg/L)		0.0011	< 0.0001
Lithium, total (mg/L)		0.0014	0.0004
Magnesium, total (mg/L)		25.3	19.3
Manganese, total (mg/L)		0.204	0.0420
Mercury, total (mg/L)		< 0.00002	< 0.00002
Molybdenum, total (mg/L)		0.0015	0.0019
Nickel, total (mg/L)		0.0044	0.0015
Phosphorus, total (mg/L)		0.06	0.02
Potassium, total (mg/L)		3.04	2.65
Selenium, total (mg/L)		< 0.0005	0.0006
Silicon, total (mg/L)		7.2	5.0
Silver, total (mg/L)		< 0.00005	< 0.00005
Sodium, total (mg/L)		92.7	58.9
Strontium, total (mg/L)		0.469	0.417
Sulfur, total (mg/L)		72	60
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** 6101990  
2016-11-04

		6101990-01	6101990-02
		Water	Water
		2016-10-26	2016-10-26
		Weir	SW-1
Total Metals	Titanium, total (mg/L)	0.108	< 0.005
	Uranium, total (mg/L)	0.00095	0.00130
	Vanadium, total (mg/L)	0.006	0.001
	Zinc, total (mg/L)	0.008	< 0.004
	Zirconium, total (mg/L)	0.0009	< 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 (%)	89	91
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 (%)	100	97
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 (%)	49	52
	Sur: Naphthalene-d8 (%)	94	86
Sur: Perylene-d12 (%)	105	95	
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** 6101990  
2016-11-04

		6101990-01	6101990-02
		Water	Water
		2016-10-26	2016-10-26
		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 (%)	90	91
	Sur: 4-Bromofluorobenzene (%)	86	88
	Sur: 1,4-Dichlorobenzene-d4 (%)	111	114

<b>Client Information</b> Allterra Construction 2158 Millstream Road Victoria BC V9B 6H4 Phone: (250) 508-0726	<b>Project Information</b> SIRM 460 Stebbings Number: [none] Sample count: 2 TAT: 5	<b>Laboratory Information</b> CARO Analytical Services #110 - 4011 Viking Way Richmond BC V6V 2K9 Phone: (604) 279-1499 Fax: (604) 279-1599	<b>COC Information</b> Number: B33090 Shipped via: ACE
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#1	1 (Template: 01) 10/26/2016 14:30 Grab / Water <span style="font-size: 1.5em; margin-left: 100px;">Weir</span>	<p style="text-align: center;"><b>Analyses</b></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: Chromium 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 Comments: 2 extra bottles of sample supplied	<p style="text-align: center;"><b>Containers</b></p> C03_250 mL Glass (EPH/PAH) (1) C04_40 mL Vial (VOC Water) (1) 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) (1) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1)
#2	2 (Template: 01) 10/26/2016 15:30 Grab / Water <span style="font-size: 1.5em; margin-left: 100px;">SW-1</span>	<p style="text-align: center;"><b>Analyses</b></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: Chromium 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;"><b>Containers</b></p> C03_250 mL Glass (EPH/PAH) (1) C04_40 mL Vial (VOC Water) (1) 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) (1) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1)

Relinquished by	Date/Time	Accepted by	Date/Time
			10:10
			12:20
			Oct 28

