

**REPORTED TO** Allterra Construction  
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**ATTENTION** Rahim Gaidhar

**WORK ORDER** 7020950

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

**RECEIVED / TEMP** 2017-02-16 11:45 / 10°C  
**REPORTED** 2017-02-23  
**COC NUMBER** 20170215

**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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**PROJECT** SIRM 460 Stebbings

**WORK ORDER** 7020950  
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<b>Analysis Information</b> Analysis Descriptions, Method References, Glossary of Terms	Page 3
<b>Sample Analytical Data</b> Test Results, Reporting Limits, Analysis Dates, Sample & Analysis Notes	Page 4
<b>Quality Control Data</b> Method Blanks, Duplicates, Spikes, Reference Materials	Appendix 1
<b>Analytical Summary</b> Tabulated data in condensed format to assist with comparisons	Appendix 2
<b>Chain of Custody Document</b> Analysis instructions provided by client	Appendix 5

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

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
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
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

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SIRM 460 Stebbings

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Analyte	Result / Recovery	Estimate of Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
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**Sample ID: 2-SW1 (7020950-01) [Water] Sampled: 2017-02-15 09:30**

**Anions**

Chloride	23.2	± 1.1	0.10	mg/L	N/A	2017-02-17	
Fluoride	< 0.10		0.10	mg/L	N/A	2017-02-17	
Nitrate (as N)	0.456	± 0.057	0.010	mg/L	N/A	2017-02-17	
Nitrite (as N)	< 0.010		0.010	mg/L	N/A	2017-02-17	
Sulfate	56.3	± 6.7	1.0	mg/L	N/A	2017-02-17	

**General Parameters**

Alkalinity, Total (as CaCO3)	59	± 3	1	mg/L	N/A	2017-02-17	
Alkalinity, Phenolphthalein (as CaCO3)	< 1		1	mg/L	N/A	2017-02-17	
Alkalinity, Bicarbonate (as CaCO3)	59	± 3	1	mg/L	N/A	2017-02-17	
Alkalinity, Carbonate (as CaCO3)	< 1		1	mg/L	N/A	2017-02-17	
Alkalinity, Hydroxide (as CaCO3)	< 1		1	mg/L	N/A	2017-02-17	
Chromium, Hexavalent	< 0.001		0.001	mg/L	N/A	2017-02-20	
Colour, True	< 5		5	CU	N/A	2017-02-17	
Conductivity (EC)	313	± 5	2	µS/cm	N/A	2017-02-17	
pH	7.65	± 0.02	0.01	pH units	N/A	2017-02-17	HT2
Solids, Total Dissolved	193	± 21	10	mg/L	N/A	2017-02-22	
Solids, Total Suspended	5	± 1	2	mg/L	N/A	2017-02-20	
Turbidity	13.2	± 0.6	0.10	NTU	N/A	2017-02-18	

**Calculated Parameters**

Chromium, Trivalent	< 0.0010		0.0010	mg/L	N/A	N/A	
Hardness, Total (as CaCO3)	115		0.50	mg/L	N/A	N/A	

**Dissolved Metals**

Aluminum, dissolved	< 0.005		0.005	mg/L	N/A	2017-02-17	
Antimony, dissolved	0.0002	± 0.0001	0.0001	mg/L	N/A	2017-02-17	
Arsenic, dissolved	< 0.0005		0.0005	mg/L	N/A	2017-02-17	
Barium, dissolved	0.006	± 0.001	0.005	mg/L	N/A	2017-02-17	
Beryllium, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-02-17	
Bismuth, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-02-17	
Boron, dissolved	0.020	± 0.004	0.004	mg/L	N/A	2017-02-17	
Cadmium, dissolved	< 0.00001		0.00001	mg/L	N/A	2017-02-17	
Calcium, dissolved	36.8	± 6.0	0.2	mg/L	N/A	2017-02-17	
Chromium, dissolved	< 0.0005		0.0005	mg/L	N/A	2017-02-17	
Cobalt, dissolved	< 0.00005		0.00005	mg/L	N/A	2017-02-17	
Copper, dissolved	0.0008	± 0.0003	0.0002	mg/L	N/A	2017-02-17	
Iron, dissolved	< 0.010		0.010	mg/L	N/A	2017-02-17	
Lead, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-02-17	
Lithium, dissolved	0.0001		0.0001	mg/L	N/A	2017-02-17	
Magnesium, dissolved	5.59	± 0.95	0.01	mg/L	N/A	2017-02-17	
Manganese, dissolved	0.0018	± 0.0003	0.0002	mg/L	N/A	2017-02-17	
Mercury, dissolved	< 0.00002		0.00002	mg/L	2017-02-20	2017-02-20	
Molybdenum, dissolved	0.0007	± 0.0001	0.0001	mg/L	N/A	2017-02-17	
Nickel, dissolved	0.0004	± 0.0002	0.0002	mg/L	N/A	2017-02-17	
Phosphorus, dissolved	< 0.02		0.02	mg/L	N/A	2017-02-17	

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**Sample ID: 2-SW1 (7020950-01) [Water] Sampled: 2017-02-15 09:30, Continued**

***Dissolved Metals, Continued***

Potassium, dissolved	0.70	± 0.11	0.02	mg/L	N/A	2017-02-17	
Selenium, dissolved	< 0.0005		0.0005	mg/L	N/A	2017-02-17	
Silicon, dissolved	3.3	± 1.6	0.5	mg/L	N/A	2017-02-17	
Silver, dissolved	< 0.00005		0.00005	mg/L	N/A	2017-02-17	
Sodium, dissolved	11.3	± 1.8	0.02	mg/L	N/A	2017-02-17	
Strontium, dissolved	0.110	± 0.012	0.001	mg/L	N/A	2017-02-17	
Sulfur, dissolved	17	± 59	1	mg/L	N/A	2017-02-17	
Tellurium, dissolved	< 0.0002		0.0002	mg/L	N/A	2017-02-17	
Thallium, dissolved	< 0.00002		0.00002	mg/L	N/A	2017-02-17	
Thorium, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-02-17	
Tin, dissolved	< 0.0002		0.0002	mg/L	N/A	2017-02-17	
Titanium, dissolved	< 0.005		0.005	mg/L	N/A	2017-02-17	
Uranium, dissolved	0.00041	± 0.00006	0.00002	mg/L	N/A	2017-02-17	
Vanadium, dissolved	< 0.001		0.001	mg/L	N/A	2017-02-17	
Zinc, dissolved	< 0.004		0.004	mg/L	N/A	2017-02-17	
Zirconium, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-02-17	

***Total Metals***

Aluminum, total	0.354	± 0.065	0.005	mg/L	2017-02-17	2017-02-17	
Antimony, total	0.0002	± 0.0001	0.0001	mg/L	2017-02-17	2017-02-17	
Arsenic, total	< 0.0005		0.0005	mg/L	2017-02-17	2017-02-17	
Barium, total	0.008	± 0.001	0.005	mg/L	2017-02-17	2017-02-17	
Beryllium, total	< 0.0001		0.0001	mg/L	2017-02-17	2017-02-17	
Bismuth, total	< 0.0001		0.0001	mg/L	2017-02-17	2017-02-17	
Boron, total	0.030	± 0.006	0.004	mg/L	2017-02-17	2017-02-17	
Cadmium, total	< 0.00001		0.00001	mg/L	2017-02-17	2017-02-17	
Calcium, total	38.7	± 4.7	0.2	mg/L	2017-02-17	2017-02-17	
Chromium, total	0.0008	± 0.0001	0.0005	mg/L	2017-02-17	2017-02-17	
Cobalt, total	0.00025	± 0.00002	0.00005	mg/L	2017-02-17	2017-02-17	
Copper, total	0.0018	± 0.0003	0.0002	mg/L	2017-02-17	2017-02-17	
Iron, total	0.39	± 0.08	0.01	mg/L	2017-02-17	2017-02-17	
Lead, total	0.0003	± 0.0001	0.0001	mg/L	2017-02-17	2017-02-17	
Lithium, total	0.0003	± 0.0001	0.0001	mg/L	2017-02-17	2017-02-17	
Magnesium, total	5.81	± 0.88	0.01	mg/L	2017-02-17	2017-02-17	
Manganese, total	0.0078	± 0.0007	0.0002	mg/L	2017-02-17	2017-02-17	
Mercury, total	< 0.00002		0.00002	mg/L	2017-02-20	2017-02-20	
Molybdenum, total	0.0006	± 0.0001	0.0001	mg/L	2017-02-17	2017-02-17	
Nickel, total	0.0010	± 0.0001	0.0002	mg/L	2017-02-17	2017-02-17	
Phosphorus, total	< 0.02		0.02	mg/L	2017-02-17	2017-02-17	
Potassium, total	0.76	± 0.09	0.02	mg/L	2017-02-17	2017-02-17	
Selenium, total	< 0.0005		0.0005	mg/L	2017-02-17	2017-02-17	
Silicon, total	3.9	± 1.5	0.5	mg/L	2017-02-17	2017-02-17	
Silver, total	< 0.00005		0.00005	mg/L	2017-02-17	2017-02-17	
Sodium, total	11.6	± 1.7	0.02	mg/L	2017-02-17	2017-02-17	
Strontium, total	0.112	± 0.010	0.001	mg/L	2017-02-17	2017-02-17	
Sulfur, total	17	± 97	1	mg/L	2017-02-17	2017-02-17	

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SIRM 460 Stebbings

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2017-02-23

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**Sample ID: 2-SW1 (7020950-01) [Water] Sampled: 2017-02-15 09:30, Continued**

**Total Metals, Continued**

Tellurium, total	< 0.0002		0.0002	mg/L	2017-02-17	2017-02-17	
Thallium, total	< 0.00002		0.00002	mg/L	2017-02-17	2017-02-17	
Thorium, total	< 0.0001		0.0001	mg/L	2017-02-17	2017-02-17	
Tin, total	< 0.0002		0.0002	mg/L	2017-02-17	2017-02-17	
Titanium, total	<b>0.017</b>	± 0.002	0.005	mg/L	2017-02-17	2017-02-17	
Uranium, total	<b>0.00045</b>	± 0.00003	0.00002	mg/L	2017-02-17	2017-02-17	
Vanadium, total	<b>0.001</b>		0.001	mg/L	2017-02-17	2017-02-17	
Zinc, total	< 0.004		0.004	mg/L	2017-02-17	2017-02-17	
Zirconium, total	<b>0.0001</b>		0.0001	mg/L	2017-02-17	2017-02-17	

**BCMOC Aggregate Hydrocarbons**

EPHw10-19	< 250		250	µg/L	2017-02-18	2017-02-18	
EPHw19-32	< 250		250	µg/L	2017-02-18	2017-02-18	
LEPHw	< 250		250	µg/L	N/A	N/A	
HEPHw	< 250		250	µg/L	N/A	N/A	
<i>Surrogate: 2-Methylnonane</i>	82		60-140	%	2017-02-18	2017-02-18	

**Glycols**

Propylene glycol	< 5		5	mg/L	N/A	2017-02-18	
Ethylene glycol	< 5		5	mg/L	N/A	2017-02-18	
Diethylene glycol	< 5		5	mg/L	N/A	2017-02-18	
Triethylene glycol	< 5		5	mg/L	N/A	2017-02-18	
<i>Surrogate: Tetramethylene Glycol</i>	74		66-125	%	N/A	2017-02-18	

**Polycyclic Aromatic Hydrocarbons (PAH)**

Acenaphthene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Acenaphthylene	< 0.200		0.200	µg/L	2017-02-18	2017-02-18	
Acridine	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Anthracene	< 0.010		0.010	µg/L	2017-02-18	2017-02-18	
Benz (a) anthracene	< 0.010		0.010	µg/L	2017-02-18	2017-02-18	
Benzo (a) pyrene	< 0.010		0.010	µg/L	2017-02-18	2017-02-18	
Benzo (b) fluoranthene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Benzo (b+j) fluoranthene	< 0.100		0.100	µg/L	2017-02-18	2017-02-18	
Benzo (g,h,i) perylene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Benzo (k) fluoranthene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Chrysene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Dibenz (a,h) anthracene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Fluoranthene	< 0.030		0.030	µg/L	2017-02-18	2017-02-18	
Fluorene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Indeno (1,2,3-cd) pyrene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Naphthalene	< 0.200		0.200	µg/L	2017-02-18	2017-02-18	
Phenanthrene	< 0.100		0.100	µg/L	2017-02-18	2017-02-18	
Pyrene	< 0.020		0.020	µg/L	2017-02-18	2017-02-18	
Quinoline	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
<i>Surrogate: Acridine-d9</i>	82		60-130	%	2017-02-18	2017-02-18	
<i>Surrogate: Naphthalene-d8</i>	99		60-130	%	2017-02-18	2017-02-18	
<i>Surrogate: Perylene-d12</i>	103		60-130	%	2017-02-18	2017-02-18	

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2017-02-23

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**Sample ID: 2-SW1 (7020950-01) [Water] Sampled: 2017-02-15 09:30, Continued**

**Volatile Organic Compounds (VOC)**

Benzene	< 0.5		0.5	µg/L	N/A	2017-02-17	
Bromodichloromethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
Bromoform	< 1.0		1.0	µg/L	N/A	2017-02-17	
Bromomethane	< 2.0		2.0	µg/L	N/A	2017-02-17	
Carbon tetrachloride	< 0.5		0.5	µg/L	N/A	2017-02-17	
Chlorobenzene	< 1.0		1.0	µg/L	N/A	2017-02-17	
Chloroethane	< 2.0		2.0	µg/L	N/A	2017-02-17	
Chloroform	< 1.0		1.0	µg/L	N/A	2017-02-17	
Chloromethane	< 2.0		2.0	µg/L	N/A	2017-02-17	
Dibromochloromethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,2-Dibromoethane	< 0.2		0.2	µg/L	N/A	2017-02-17	
Dibromomethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,2-Dichlorobenzene	< 0.5		0.5	µg/L	N/A	2017-02-17	
1,3-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,4-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,1-Dichloroethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,2-Dichloroethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,1-Dichloroethene	< 1.0		1.0	µg/L	N/A	2017-02-17	
cis-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2017-02-17	
trans-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,2-Dichloropropane	< 1.0		1.0	µg/L	N/A	2017-02-17	
cis-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2017-02-17	
trans-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2017-02-17	
Ethylbenzene	< 1.0		1.0	µg/L	N/A	2017-02-17	
Methyl tert-butyl ether	< 1.0		1.0	µg/L	N/A	2017-02-17	
Methylene chloride	< 3.0		3.0	µg/L	N/A	2017-02-17	
Styrene	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,1,1,2-Tetrachloroethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,1,2,2-Tetrachloroethane	< 0.5		0.5	µg/L	N/A	2017-02-17	
Tetrachloroethene	< 1.0		1.0	µg/L	N/A	2017-02-17	
Toluene	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,1,1-Trichloroethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,1,2-Trichloroethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
Trichloroethene	< 1.0		1.0	µg/L	N/A	2017-02-17	
Trichlorofluoromethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
Vinyl chloride	< 1.0		1.0	µg/L	N/A	2017-02-17	
Xylenes (total)	< 2.0		2.0	µg/L	N/A	2017-02-17	
Surrogate: Toluene-d8	101		70-130	%	N/A	2017-02-17	
Surrogate: 4-Bromofluorobenzene	96		70-130	%	N/A	2017-02-17	
Surrogate: 1,4-Dichlorobenzene-d4	76		70-130	%	N/A	2017-02-17	

**Sample ID: 1-Weir (7020950-02) [Water] Sampled: 2017-02-15 09:15**

**Anions**

Chloride	31.0 ± 1.4		0.10	mg/L	N/A	2017-02-17	
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**Sample ID: 1-Weir (7020950-02) [Water] Sampled: 2017-02-15 09:15, Continued**

**Anions, Continued**

Fluoride	0.12	± 0.01	0.10	mg/L	N/A	2017-02-17	
Nitrate (as N)	0.272	± 0.034	0.010	mg/L	N/A	2017-02-17	
Nitrite (as N)	< 0.010		0.010	mg/L	N/A	2017-02-17	
Sulfate	47.9	± 5.7	1.0	mg/L	N/A	2017-02-17	

**General Parameters**

Alkalinity, Total (as CaCO3)	40	± 2	1	mg/L	N/A	2017-02-17	
Alkalinity, Phenolphthalein (as CaCO3)	< 1		1	mg/L	N/A	2017-02-17	
Alkalinity, Bicarbonate (as CaCO3)	40	± 2	1	mg/L	N/A	2017-02-17	
Alkalinity, Carbonate (as CaCO3)	< 1		1	mg/L	N/A	2017-02-17	
Alkalinity, Hydroxide (as CaCO3)	< 1		1	mg/L	N/A	2017-02-17	
Chromium, Hexavalent	< 0.001		0.001	mg/L	N/A	2017-02-20	
Colour, True	5	± 4	5	CU	N/A	2017-02-17	
Conductivity (EC)	291	± 5	2	µS/cm	N/A	2017-02-17	
pH	7.72	± 0.02	0.01	pH units	N/A	2017-02-17	HT2
Solids, Total Dissolved	189	± 20	10	mg/L	N/A	2017-02-22	
Solids, Total Suspended	31	± 3	2	mg/L	N/A	2017-02-20	
Turbidity	53.1	± 2.4	0.10	NTU	N/A	2017-02-18	

**Calculated Parameters**

Chromium, Trivalent	0.0045		0.0010	mg/L	N/A	N/A	
Hardness, Total (as CaCO3)	93.4		0.50	mg/L	N/A	N/A	

**Dissolved Metals**

Aluminum, dissolved	0.008	± 0.002	0.005	mg/L	N/A	2017-02-17	
Antimony, dissolved	0.0002	± 0.0001	0.0001	mg/L	N/A	2017-02-17	
Arsenic, dissolved	< 0.0005		0.0005	mg/L	N/A	2017-02-17	
Barium, dissolved	< 0.005		0.005	mg/L	N/A	2017-02-17	
Beryllium, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-02-17	
Bismuth, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-02-17	
Boron, dissolved	0.019	± 0.004	0.004	mg/L	N/A	2017-02-17	
Cadmium, dissolved	< 0.00001		0.00001	mg/L	N/A	2017-02-17	
Calcium, dissolved	29.6	± 4.8	0.2	mg/L	N/A	2017-02-17	
Chromium, dissolved	< 0.0005		0.0005	mg/L	N/A	2017-02-17	
Cobalt, dissolved	< 0.00005		0.00005	mg/L	N/A	2017-02-17	
Copper, dissolved	0.0007	± 0.0003	0.0002	mg/L	N/A	2017-02-17	
Iron, dissolved	< 0.010		0.010	mg/L	N/A	2017-02-17	
Lead, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-02-17	
Lithium, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-02-17	
Magnesium, dissolved	4.73	± 0.80	0.01	mg/L	N/A	2017-02-17	
Manganese, dissolved	0.0007	± 0.0002	0.0002	mg/L	N/A	2017-02-17	
Mercury, dissolved	< 0.00002		0.00002	mg/L	2017-02-20	2017-02-20	
Molybdenum, dissolved	0.0005	± 0.0001	0.0001	mg/L	N/A	2017-02-17	
Nickel, dissolved	0.0004	± 0.0002	0.0002	mg/L	N/A	2017-02-17	
Phosphorus, dissolved	< 0.02		0.02	mg/L	N/A	2017-02-17	
Potassium, dissolved	0.75	± 0.11	0.02	mg/L	N/A	2017-02-17	



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

**WORK ORDER REPORTED** 7020950  
2017-02-23

Analyte	Result / Recovery	Estimate of Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
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**Sample ID: 1-Weir (7020950-02) [Water] Sampled: 2017-02-15 09:15, Continued**

***Dissolved Metals, Continued***

Selenium, dissolved	< 0.0005		0.0005	mg/L	N/A	2017-02-17	
Silicon, dissolved	<b>2.0</b>	± 1.0	0.5	mg/L	N/A	2017-02-17	
Silver, dissolved	< 0.00005		0.00005	mg/L	N/A	2017-02-17	
Sodium, dissolved	<b>15.6</b>	± 2.5	0.02	mg/L	N/A	2017-02-17	
Strontium, dissolved	<b>0.099</b>	± 0.011	0.001	mg/L	N/A	2017-02-17	
Sulfur, dissolved	<b>16</b>	± 55	1	mg/L	N/A	2017-02-17	
Tellurium, dissolved	< 0.0002		0.0002	mg/L	N/A	2017-02-17	
Thallium, dissolved	< 0.00002		0.00002	mg/L	N/A	2017-02-17	
Thorium, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-02-17	
Tin, dissolved	< 0.0002		0.0002	mg/L	N/A	2017-02-17	
Titanium, dissolved	< 0.005		0.005	mg/L	N/A	2017-02-17	
Uranium, dissolved	<b>0.00033</b>	± 0.00004	0.00002	mg/L	N/A	2017-02-17	
Vanadium, dissolved	< 0.001		0.001	mg/L	N/A	2017-02-17	
Zinc, dissolved	<b>0.007</b>	± 0.006	0.004	mg/L	N/A	2017-02-17	
Zirconium, dissolved	< 0.0001		0.0001	mg/L	N/A	2017-02-17	

***Total Metals***

Aluminum, total	<b>2.58</b>	± 0.47	0.005	mg/L	2017-02-17	2017-02-17	
Antimony, total	<b>0.0002</b>	± 0.0001	0.0001	mg/L	2017-02-17	2017-02-17	
Arsenic, total	<b>0.0006</b>	± 0.0001	0.0005	mg/L	2017-02-17	2017-02-17	
Barium, total	<b>0.020</b>	± 0.003	0.005	mg/L	2017-02-17	2017-02-17	
Beryllium, total	< 0.0001		0.0001	mg/L	2017-02-17	2017-02-17	
Bismuth, total	< 0.0001		0.0001	mg/L	2017-02-17	2017-02-17	
Boron, total	<b>0.024</b>	± 0.005	0.004	mg/L	2017-02-17	2017-02-17	
Cadmium, total	<b>0.00001</b>	± 0.00002	0.00001	mg/L	2017-02-17	2017-02-17	
Calcium, total	<b>31.8</b>	± 3.9	0.2	mg/L	2017-02-17	2017-02-17	
Chromium, total	<b>0.0045</b>	± 0.0006	0.0005	mg/L	2017-02-17	2017-02-17	
Cobalt, total	<b>0.00113</b>	± 0.00010	0.00005	mg/L	2017-02-17	2017-02-17	
Copper, total	<b>0.0056</b>	± 0.0007	0.0002	mg/L	2017-02-17	2017-02-17	
Iron, total	<b>2.61</b>	± 0.51	0.01	mg/L	2017-02-17	2017-02-17	
Lead, total	<b>0.0012</b>	± 0.0001	0.0001	mg/L	2017-02-17	2017-02-17	
Lithium, total	<b>0.0017</b>	± 0.0003	0.0001	mg/L	2017-02-17	2017-02-17	
Magnesium, total	<b>5.68</b>	± 0.87	0.01	mg/L	2017-02-17	2017-02-17	
Manganese, total	<b>0.0347</b>	± 0.0031	0.0002	mg/L	2017-02-17	2017-02-17	
Mercury, total	< 0.00002		0.00002	mg/L	2017-02-20	2017-02-20	
Molybdenum, total	<b>0.0005</b>	± 0.0001	0.0001	mg/L	2017-02-17	2017-02-17	
Nickel, total	<b>0.0045</b>	± 0.0004	0.0002	mg/L	2017-02-17	2017-02-17	
Phosphorus, total	<b>0.04</b>	± 7.32	0.02	mg/L	2017-02-17	2017-02-17	
Potassium, total	<b>1.16</b>	± 0.13	0.02	mg/L	2017-02-17	2017-02-17	
Selenium, total	< 0.0005		0.0005	mg/L	2017-02-17	2017-02-17	
Silicon, total	<b>7.4</b>	± 2.7	0.5	mg/L	2017-02-17	2017-02-17	
Silver, total	< 0.00005		0.00005	mg/L	2017-02-17	2017-02-17	
Sodium, total	<b>16.4</b>	± 2.4	0.02	mg/L	2017-02-17	2017-02-17	
Strontium, total	<b>0.105</b>	± 0.010	0.001	mg/L	2017-02-17	2017-02-17	
Sulfur, total	<b>16</b>	± 91	1	mg/L	2017-02-17	2017-02-17	
Tellurium, total	< 0.0002		0.0002	mg/L	2017-02-17	2017-02-17	

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

Analyte	Result / Recovery	Estimate of Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
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**Sample ID: 1-Weir (7020950-02) [Water] Sampled: 2017-02-15 09:15, Continued**

**Total Metals, Continued**

Thallium, total	< 0.00002		0.00002	mg/L	2017-02-17	2017-02-17	
Thorium, total	<b>0.0001</b>		0.0001	mg/L	2017-02-17	2017-02-17	
Tin, total	< 0.0002		0.0002	mg/L	2017-02-17	2017-02-17	
Titanium, total	<b>0.141</b>	± 0.019	0.005	mg/L	2017-02-17	2017-02-17	
Uranium, total	<b>0.00041</b>	± 0.00003	0.00002	mg/L	2017-02-17	2017-02-17	
Vanadium, total	<b>0.007</b>	± 0.001	0.001	mg/L	2017-02-17	2017-02-17	
Zinc, total	<b>0.008</b>	± 0.003	0.004	mg/L	2017-02-17	2017-02-17	
Zirconium, total	<b>0.0020</b>	± 0.0004	0.0001	mg/L	2017-02-17	2017-02-17	

**BCMOE Aggregate Hydrocarbons**

EPHw10-19	< 250		250	µg/L	2017-02-18	2017-02-18	
EPHw19-32	< 250		250	µg/L	2017-02-18	2017-02-18	
LEPHw	< 250		250	µg/L	N/A	N/A	
HEPHw	< 250		250	µg/L	N/A	N/A	
<i>Surrogate: 2-Methylnonane</i>	84		60-140	%	2017-02-18	2017-02-18	

**Glycols**

Propylene glycol	< 5		5	mg/L	N/A	2017-02-18	
Ethylene glycol	< 5		5	mg/L	N/A	2017-02-18	
Diethylene glycol	< 5		5	mg/L	N/A	2017-02-18	
Triethylene glycol	< 5		5	mg/L	N/A	2017-02-18	
<i>Surrogate: Tetramethylene Glycol</i>	75		66-125	%	N/A	2017-02-18	

**Polycyclic Aromatic Hydrocarbons (PAH)**

Acenaphthene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Acenaphthylene	< 0.200		0.200	µg/L	2017-02-18	2017-02-18	
Acridine	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Anthracene	< 0.010		0.010	µg/L	2017-02-18	2017-02-18	
Benz (a) anthracene	< 0.010		0.010	µg/L	2017-02-18	2017-02-18	
Benzo (a) pyrene	< 0.010		0.010	µg/L	2017-02-18	2017-02-18	
Benzo (b) fluoranthene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Benzo (b+j) fluoranthene	< 0.100		0.100	µg/L	2017-02-18	2017-02-18	
Benzo (g,h,i) perylene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Benzo (k) fluoranthene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Chrysene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Dibenz (a,h) anthracene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Fluoranthene	< 0.030		0.030	µg/L	2017-02-18	2017-02-18	
Fluorene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Indeno (1,2,3-cd) pyrene	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
Naphthalene	< 0.200		0.200	µg/L	2017-02-18	2017-02-18	
Phenanthrene	< 0.100		0.100	µg/L	2017-02-18	2017-02-18	
Pyrene	< 0.020		0.020	µg/L	2017-02-18	2017-02-18	
Quinoline	< 0.050		0.050	µg/L	2017-02-18	2017-02-18	
<i>Surrogate: Acridine-d9</i>	81		60-130	%	2017-02-18	2017-02-18	
<i>Surrogate: Naphthalene-d8</i>	95		60-130	%	2017-02-18	2017-02-18	
<i>Surrogate: Perylene-d12</i>	103		60-130	%	2017-02-18	2017-02-18	

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

Analyte	Result / Recovery	Estimate of Uncertainty	MRL / Limits	Units	Prepared	Analyzed	Notes
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**Sample ID: 1-Weir (7020950-02) [Water] Sampled: 2017-02-15 09:15, Continued**

<b>Volatile Organic Compounds (VOC)</b>							
Benzene	< 0.5		0.5	µg/L	N/A	2017-02-17	
Bromodichloromethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
Bromoform	< 1.0		1.0	µg/L	N/A	2017-02-17	
Bromomethane	< 2.0		2.0	µg/L	N/A	2017-02-17	
Carbon tetrachloride	< 0.5		0.5	µg/L	N/A	2017-02-17	
Chlorobenzene	< 1.0		1.0	µg/L	N/A	2017-02-17	
Chloroethane	< 2.0		2.0	µg/L	N/A	2017-02-17	
Chloroform	< 1.0		1.0	µg/L	N/A	2017-02-17	
Chloromethane	< 2.0		2.0	µg/L	N/A	2017-02-17	
Dibromochloromethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,2-Dibromoethane	< 0.2		0.2	µg/L	N/A	2017-02-17	
Dibromomethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,2-Dichlorobenzene	< 0.5		0.5	µg/L	N/A	2017-02-17	
1,3-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,4-Dichlorobenzene	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,1-Dichloroethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,2-Dichloroethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,1-Dichloroethene	< 1.0		1.0	µg/L	N/A	2017-02-17	
cis-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2017-02-17	
trans-1,2-Dichloroethene	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,2-Dichloropropane	< 1.0		1.0	µg/L	N/A	2017-02-17	
cis-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2017-02-17	
trans-1,3-Dichloropropene	< 1.0		1.0	µg/L	N/A	2017-02-17	
Ethylbenzene	< 1.0		1.0	µg/L	N/A	2017-02-17	
Methyl tert-butyl ether	< 1.0		1.0	µg/L	N/A	2017-02-17	
Methylene chloride	< 3.0		3.0	µg/L	N/A	2017-02-17	
Styrene	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,1,1,2-Tetrachloroethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,1,2,2-Tetrachloroethane	< 0.5		0.5	µg/L	N/A	2017-02-17	
Tetrachloroethene	< 1.0		1.0	µg/L	N/A	2017-02-17	
Toluene	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,1,1-Trichloroethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
1,1,2-Trichloroethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
Trichloroethene	< 1.0		1.0	µg/L	N/A	2017-02-17	
Trichlorofluoromethane	< 1.0		1.0	µg/L	N/A	2017-02-17	
Vinyl chloride	< 1.0		1.0	µg/L	N/A	2017-02-17	
Xylenes (total)	< 2.0		2.0	µg/L	N/A	2017-02-17	
Surrogate: Toluene-d8	100		70-130	%	N/A	2017-02-17	
Surrogate: 4-Bromofluorobenzene	95		70-130	%	N/A	2017-02-17	
Surrogate: 1,4-Dichlorobenzene-d4	77		70-130	%	N/A	2017-02-17	

**Sample / Analysis Qualifiers:**

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

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

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 B7B0878</b>									
<b>Blank (B7B0878-BLK1)</b> Prepared: 2017-02-17, Analyzed: 2017-02-17									
Chloride	< 0.10	0.10 mg/L							
Fluoride	< 0.10	0.10 mg/L							
Nitrate (as N)	< 0.010	0.010 mg/L							
Nitrite (as N)	< 0.010	0.010 mg/L							
Sulfate	< 1.0	1.0 mg/L							
<b>Blank (B7B0878-BLK2)</b> Prepared: 2017-02-17, Analyzed: 2017-02-17									
Chloride	< 0.10	0.10 mg/L							
Fluoride	< 0.10	0.10 mg/L							
Nitrate (as N)	< 0.010	0.010 mg/L							
Nitrite (as N)	< 0.010	0.010 mg/L							
Sulfate	< 1.0	1.0 mg/L							
<b>LCS (B7B0878-BS1)</b> Prepared: 2017-02-17, Analyzed: 2017-02-17									
Chloride	15.8	0.10 mg/L	16.0		98	90-110			
Fluoride	4.00	0.10 mg/L	4.00		100	88-108			
Nitrate (as N)	4.03	0.010 mg/L	4.00		101	93-108			
Nitrite (as N)	1.99	0.010 mg/L	2.00		99	83-110			
Sulfate	15.5	1.0 mg/L	16.0		97	91-109			
<b>LCS (B7B0878-BS2)</b> Prepared: 2017-02-17, Analyzed: 2017-02-17									
Chloride	15.8	0.10 mg/L	16.0		99	90-110			
Fluoride	4.02	0.10 mg/L	4.00		101	88-108			
Nitrate (as N)	3.97	0.010 mg/L	4.00		99	93-108			
Nitrite (as N)	1.99	0.010 mg/L	2.00		100	83-110			
Sulfate	15.6	1.0 mg/L	16.0		98	91-109			
<b>BCMOE Aggregate Hydrocarbons, Batch B7B0926</b>									
<b>Blank (B7B0926-BLK1)</b> Prepared: 2017-02-18, Analyzed: 2017-02-18									
EPHw10-19	< 250	250 µg/L							
EPHw19-32	< 250	250 µg/L							

**APPENDIX 1: QUALITY CONTROL DATA**

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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**BCMOE Aggregate Hydrocarbons, Batch B7B0926, Continued**

**Blank (B7B0926-BLK1), Continued**

Prepared: 2017-02-18, Analyzed: 2017-02-18

Surrogate: 2-Methylnonane	380	µg/L	444		85	60-140			
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**LCS (B7B0926-BS2)**

Prepared: 2017-02-18, Analyzed: 2017-02-18

EPHw10-19	13300	250 µg/L	15500		86	70-130			
EPHw19-32	15600	250 µg/L	22200		70	70-130			
Surrogate: 2-Methylnonane	386	µg/L	444		87	60-140			

**Dissolved Metals, Batch B7B0877**

**Blank (B7B0877-BLK1)**

Prepared: 2017-02-17, Analyzed: 2017-02-17

Aluminum, dissolved	< 0.005	0.005 mg/L							
Antimony, dissolved	< 0.0001	0.0001 mg/L							
Arsenic, dissolved	< 0.0005	0.0005 mg/L							
Barium, dissolved	< 0.005	0.005 mg/L							
Beryllium, dissolved	< 0.0001	0.0001 mg/L							
Bismuth, dissolved	< 0.0001	0.0001 mg/L							
Boron, dissolved	< 0.004	0.004 mg/L							
Cadmium, dissolved	< 0.00001	0.00001 mg/L							
Calcium, dissolved	< 0.2	0.2 mg/L							
Chromium, dissolved	< 0.0005	0.0005 mg/L							
Cobalt, dissolved	< 0.00005	0.00005 mg/L							
Copper, dissolved	< 0.0002	0.0002 mg/L							
Iron, dissolved	< 0.010	0.010 mg/L							
Lead, dissolved	< 0.0001	0.0001 mg/L							
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 (B7B0877-DUP1)**

Source: 7020950-01

Prepared: 2017-02-17, Analyzed: 2017-02-17

Aluminum, dissolved	< 0.005	0.005 mg/L	< 0.005			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	0.006	0.005 mg/L	0.006			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	0.013	0.004 mg/L	0.020		41	13
Cadmium, dissolved	< 0.00001	0.00001 mg/L	< 0.00001			27

**APPENDIX 1: QUALITY CONTROL DATA**

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>Dissolved Metals, Batch B7B0877, Continued</b>									
<b>Duplicate (B7B0877-DUP1), Continued</b>		<b>Source: 7020950-01</b>		<b>Prepared: 2017-02-17, Analyzed: 2017-02-17</b>					
Calcium, dissolved	36.7	0.2 mg/L		36.8			< 1	8	
Chromium, dissolved	< 0.0005	0.0005 mg/L		< 0.0005				14	
Cobalt, dissolved	0.00005	0.00005 mg/L		0.00005				10	
Copper, dissolved	0.0007	0.0002 mg/L		0.0008				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	0.0001	0.0001 mg/L		0.0001				14	
Magnesium, dissolved	5.64	0.01 mg/L		5.59			< 1	6	
Manganese, dissolved	0.0018	0.0002 mg/L		0.0018			< 1	9	
Molybdenum, dissolved	0.0007	0.0001 mg/L		0.0007			2	19	
Nickel, dissolved	0.0004	0.0002 mg/L		0.0004				21	
Phosphorus, dissolved	< 0.02	0.02 mg/L		< 0.02				14	
Potassium, dissolved	0.70	0.02 mg/L		0.70			< 1	8	
Selenium, dissolved	< 0.0005	0.0005 mg/L		< 0.0005				36	
Silicon, dissolved	3.3	0.5 mg/L		3.3			< 1	12	
Silver, dissolved	< 0.00005	0.00005 mg/L		< 0.00005				20	
Sodium, dissolved	11.3	0.02 mg/L		11.3			< 1	6	
Strontium, dissolved	0.109	0.001 mg/L		0.110			1	6	
Sulfur, dissolved	17	1 mg/L		17			2	26	
Tellurium, dissolved	< 0.0002	0.0002 mg/L		< 0.0002				20	
Thallium, dissolved	< 0.00002	0.00002 mg/L		< 0.00002				13	
Thorium, dissolved	< 0.0001	0.0001 mg/L		< 0.0001				30	
Tin, dissolved	< 0.0002	0.0002 mg/L		< 0.0002				6	
Titanium, dissolved	< 0.005	0.005 mg/L		< 0.005				20	
Uranium, dissolved	0.00040	0.00002 mg/L		0.00041			3	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 (B7B0877-MS1)</b>		<b>Source: 7020950-02</b>		<b>Prepared: 2017-02-17, Analyzed: 2017-02-17</b>					
Antimony, dissolved	0.401	0.0001 mg/L		0.400	0.0002	100	76-114		
Arsenic, dissolved	0.190	0.0005 mg/L		0.200	< 0.0005	95	81-115		
Barium, dissolved	0.956	0.005 mg/L		1.00	< 0.005	95	80-113		
Beryllium, dissolved	0.102	0.0001 mg/L		0.100	< 0.0001	102	69-109		
Cadmium, dissolved	0.0935	0.00001 mg/L		0.100	< 0.00001	94	83-110		
Chromium, dissolved	0.370	0.0005 mg/L		0.400	< 0.0005	92	85-115		
Cobalt, dissolved	0.369	0.00005 mg/L		0.400	< 0.00005	92	86-114		
Copper, dissolved	0.384	0.0002 mg/L		0.400	0.0007	96	82-119		
Iron, dissolved	1.88	0.010 mg/L		2.00	< 0.010	94	80-116		
Lead, dissolved	0.191	0.0001 mg/L		0.200	< 0.0001	96	83-112		
Manganese, dissolved	0.374	0.0002 mg/L		0.400	0.0007	93	62-131		
Nickel, dissolved	0.377	0.0002 mg/L		0.400	0.0004	94	81-115		
Selenium, dissolved	0.0997	0.0005 mg/L		0.100	< 0.0005	100	79-115		
Silver, dissolved	0.0985	0.00005 mg/L		0.100	< 0.00005	99	69-121		
Thallium, dissolved	0.0986	0.00002 mg/L		0.100	< 0.00002	99	84-115		
Vanadium, dissolved	0.372	0.001 mg/L		0.400	< 0.001	93	83-113		
Zinc, dissolved	0.966	0.004 mg/L		1.00	0.007	96	82-115		
<b>Reference (B7B0877-SRM1)</b>		<b>Prepared: 2017-02-17, Analyzed: 2017-02-17</b>							
Aluminum, dissolved	0.223	0.005 mg/L		0.233		96	58-142		
Antimony, dissolved	0.0468	0.0001 mg/L		0.0430		109	75-125		
Arsenic, dissolved	0.432	0.0005 mg/L		0.438		99	81-119		
Barium, dissolved	3.30	0.005 mg/L		3.35		99	83-117		
Beryllium, dissolved	0.226	0.0001 mg/L		0.213		106	80-120		
Boron, dissolved	1.70	0.004 mg/L		1.74		98	74-117		
Cadmium, dissolved	0.221	0.00001 mg/L		0.224		99	83-117		
Calcium, dissolved	8.1	0.2 mg/L		7.69		105	76-124		

## APPENDIX 1: QUALITY CONTROL DATA

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>Dissolved Metals, Batch B7B0877, Continued</b>									
<b>Reference (B7B0877-SRM1), Continued</b>					Prepared: 2017-02-17, Analyzed: 2017-02-17				
Chromium, dissolved	0.422	0.0005 mg/L	0.437		97	81-119			
Cobalt, dissolved	0.127	0.00005 mg/L	0.128		99	76-124			
Copper, dissolved	0.837	0.0002 mg/L	0.844		99	84-116			
Iron, dissolved	1.25	0.010 mg/L	1.29		97	74-126			
Lead, dissolved	0.111	0.0001 mg/L	0.112		99	72-128			
Lithium, dissolved	0.113	0.0001 mg/L	0.104		108	60-140			
Magnesium, dissolved	6.82	0.01 mg/L	6.92		99	81-119			
Manganese, dissolved	0.339	0.0002 mg/L	0.345		98	84-116			
Molybdenum, dissolved	0.427	0.0001 mg/L	0.426		100	83-117			
Nickel, dissolved	0.837	0.0002 mg/L	0.840		100	74-126			
Phosphorus, dissolved	0.48	0.02 mg/L	0.495		97	68-132			
Potassium, dissolved	3.21	0.02 mg/L	3.19		101	74-126			
Selenium, dissolved	0.0344	0.0005 mg/L	0.0331		104	70-130			
Sodium, dissolved	18.6	0.02 mg/L	19.1		97	72-128			
Strontium, dissolved	0.888	0.001 mg/L	0.916		97	84-113			
Thallium, dissolved	0.0392	0.00002 mg/L	0.0393		100	57-143			
Uranium, dissolved	0.258	0.00002 mg/L	0.266		97	85-115			
Vanadium, dissolved	0.821	0.001 mg/L	0.869		94	87-113			
Zinc, dissolved	0.877	0.004 mg/L	0.881		100	72-128			

**Dissolved Metals, Batch B7B0985**

<b>Blank (B7B0985-BLK1)</b>					Prepared: 2017-02-20, Analyzed: 2017-02-20				
Mercury, dissolved	< 0.00002	0.00002 mg/L							
<b>Duplicate (B7B0985-DUP1)</b>					Source: 7020950-01 Prepared: 2017-02-20, Analyzed: 2017-02-20				
Mercury, dissolved	< 0.00002	0.00002 mg/L		< 0.00002				20	
<b>Matrix Spike (B7B0985-MS1)</b>					Source: 7020950-02 Prepared: 2017-02-20, Analyzed: 2017-02-20				
Mercury, dissolved	0.00025	0.00002 mg/L	0.000250	< 0.00002	97	70-130			
<b>Reference (B7B0985-SRM1)</b>					Prepared: 2017-02-20, Analyzed: 2017-02-20				
Mercury, dissolved	0.00486	0.00002 mg/L	0.00489		99	50-150			

**General Parameters, Batch B7B0713**

<b>Blank (B7B0713-BLK1)</b>					Prepared: 2017-02-17, Analyzed: 2017-02-17				
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 (B7B0713-BLK2)</b>					Prepared: 2017-02-17, Analyzed: 2017-02-17				
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>LCS (B7B0713-BS1)</b>					Prepared: 2017-02-17, Analyzed: 2017-02-17				
Alkalinity, Total (as CaCO <sub>3</sub> )	103	1 mg/L	100		103	92-106			

## APPENDIX 1: QUALITY CONTROL DATA

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>General Parameters, Batch B7B0713, Continued</b>									
<b>LCS (B7B0713-BS2)</b>			Prepared: 2017-02-17, Analyzed: 2017-02-17						
Alkalinity, Total (as CaCO3)	103	1 mg/L	100		103	92-106			
<b>LCS (B7B0713-BS3)</b>			Prepared: 2017-02-17, Analyzed: 2017-02-17						
Conductivity (EC)	1400	2 µS/cm	1410		100	95-104			
<b>LCS (B7B0713-BS4)</b>			Prepared: 2017-02-17, Analyzed: 2017-02-17						
Conductivity (EC)	1430	2 µS/cm	1410		101	95-104			
<b>Reference (B7B0713-SRM1)</b>			Prepared: 2017-02-17, Analyzed: 2017-02-17						
pH	6.99	0.01 pH units	7.00		100	98-102			
<b>General Parameters, Batch B7B0872</b>									
<b>Blank (B7B0872-BLK1)</b>			Prepared: 2017-02-20, Analyzed: 2017-02-20						
Solids, Total Suspended	< 1	2 mg/L							
<b>Blank (B7B0872-BLK2)</b>			Prepared: 2017-02-20, Analyzed: 2017-02-20						
Solids, Total Suspended	< 1	2 mg/L							
<b>LCS (B7B0872-BS1)</b>			Prepared: 2017-02-20, Analyzed: 2017-02-20						
Solids, Total Suspended	50	2 mg/L	50.0		100	91-106			
<b>LCS (B7B0872-BS2)</b>			Prepared: 2017-02-20, Analyzed: 2017-02-20						
Solids, Total Suspended	51	2 mg/L	50.0		101	91-106			
<b>Reference (B7B0872-SRM1)</b>			Prepared: 2017-02-20, Analyzed: 2017-02-20						
Solids, Total Suspended	320	2 mg/L	382		84	80-120			
<b>General Parameters, Batch B7B0891</b>									
<b>Blank (B7B0891-BLK1)</b>			Prepared: 2017-02-17, Analyzed: 2017-02-17						
Colour, True	< 5	5 CU							
<b>LCS (B7B0891-BS1)</b>			Prepared: 2017-02-17, Analyzed: 2017-02-17						
Colour, True	10	5 CU	10.0		100	85-115			
<b>General Parameters, Batch B7B0936</b>									
<b>Blank (B7B0936-BLK1)</b>			Prepared: 2017-02-18, Analyzed: 2017-02-18						
Turbidity	< 0.10	0.10 NTU							
<b>LCS (B7B0936-BS1)</b>			Prepared: 2017-02-18, Analyzed: 2017-02-18						
Turbidity	40.2	0.10 NTU	40.0		100	90-110			
<b>Duplicate (B7B0936-DUP1)</b>			Prepared: 2017-02-18, Analyzed: 2017-02-18						
Turbidity	13.8	0.10 NTU		13.2			4	15	
<b>General Parameters, Batch B7B0986</b>									
<b>Blank (B7B0986-BLK1)</b>			Prepared: 2017-02-20, Analyzed: 2017-02-20						
Chromium, Hexavalent	< 0.001	0.001 mg/L							
<b>LCS (B7B0986-BS1)</b>			Prepared: 2017-02-20, Analyzed: 2017-02-20						
Chromium, Hexavalent	0.101	0.001 mg/L	0.100		101	90-111			



**APPENDIX 1: QUALITY CONTROL DATA**

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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**General Parameters, Batch B7B0986, Continued**

**Matrix Spike (B7B0986-MS1)** Source: 7020950-01 Prepared: 2017-02-20, Analyzed: 2017-02-20

Chromium, Hexavalent	0.095	0.001 mg/L	0.100	< 0.001	95	70-116			
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**General Parameters, Batch B7B1118**

**Blank (B7B1118-BLK1)** Prepared: 2017-02-22, Analyzed: 2017-02-22

Solids, Total Dissolved	< 10	10 mg/L							
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**LCS (B7B1118-BS1)** Prepared: 2017-02-22, Analyzed: 2017-02-22

Solids, Total Dissolved	243	10 mg/L	240		101	80-120			
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**Glycols, Batch B7B0942**

**Blank (B7B0942-BLK1)** Prepared: 2017-02-18, Analyzed: 2017-02-18

Propylene glycol	< 5	5 mg/L							
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Ethylene glycol	< 5	5 mg/L							
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Diethylene glycol	< 5	5 mg/L							
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Triethylene glycol	< 5	5 mg/L							
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Surrogate: Tetramethylene Glycol	88.5	mg/L	123		72	66-125			
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**LCS (B7B0942-BS1)** Prepared: 2017-02-18, Analyzed: 2017-02-18

Propylene glycol	45	5 mg/L	50.0		89	71-114			
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Ethylene glycol	44	5 mg/L	49.9		87	82-124			
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Diethylene glycol	45	5 mg/L	50.0		91	80-116			
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Triethylene glycol	44	5 mg/L	49.8		89	73-120			
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Surrogate: Tetramethylene Glycol	86.4	mg/L	123		70	66-125			
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**LCS Dup (B7B0942-BS1)** Prepared: 2017-02-18, Analyzed: 2017-02-18

Propylene glycol	47	5 mg/L	50.0		93	71-114	5	20	
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Ethylene glycol	46	5 mg/L	49.9		92	82-124	5	20	
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Diethylene glycol	47	5 mg/L	50.0		94	80-116	4	20	
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Triethylene glycol	46	5 mg/L	49.8		93	73-120	5	20	
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Surrogate: Tetramethylene Glycol	86.5	mg/L	123		70	66-125			
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**Polycyclic Aromatic Hydrocarbons (PAH), Batch B7B0926**

**Blank (B7B0926-BLK1)** Prepared: 2017-02-18, Analyzed: 2017-02-18

Acenaphthene	< 0.050	0.050 µg/L							
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Acenaphthylene	< 0.200	0.200 µg/L							
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Acridine	< 0.050	0.050 µg/L							
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Anthracene	< 0.010	0.010 µg/L							
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Benz (a) anthracene	< 0.010	0.010 µg/L							
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Benzo (a) pyrene	< 0.010	0.010 µg/L							
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Benzo (b) fluoranthene	< 0.050	0.050 µg/L							
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Benzo (b+j) fluoranthene	< 0.100	0.100 µg/L							
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Benzo (g,h,i) perylene	< 0.050	0.050 µg/L							
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Benzo (k) fluoranthene	< 0.050	0.050 µg/L							
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Chrysene	< 0.050	0.050 µg/L							
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Dibenz (a,h) anthracene	< 0.050	0.050 µg/L							
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Fluoranthene	< 0.030	0.030 µg/L							
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Fluorene	< 0.050	0.050 µg/L							
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Indeno (1,2,3-cd) pyrene	< 0.050	0.050 µg/L							
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Naphthalene	< 0.200	0.200 µg/L							
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Phenanthrene	< 0.100	0.100 µg/L							
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Pyrene	< 0.020	0.020 µg/L							
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Quinoline	< 0.050	0.050 µg/L							
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**REPORTED TO PROJECT** Allterra Construction  
SIRM 460 Stebbings

**WORK ORDER REPORTED** 7020950  
2017-02-23

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>Polycyclic Aromatic Hydrocarbons (PAH), Batch B7B0926, Continued</b>									
<b>Blank (B7B0926-BLK1), Continued</b>					Prepared: 2017-02-18, Analyzed: 2017-02-18				
Surrogate: Acridine-d9	3.60	µg/L	4.44		81	60-130			
Surrogate: Naphthalene-d8	4.24	µg/L	4.44		95	60-130			
Surrogate: Perylene-d12	4.72	µg/L	4.44		106	60-130			
<b>LCS (B7B0926-BS1)</b>					Prepared: 2017-02-18, Analyzed: 2017-02-18				
Acenaphthene	4.36	0.050 µg/L	4.44		98	70-130			
Acenaphthylene	4.38	0.200 µg/L	4.44		99	70-130			
Acridine	3.18	0.050 µg/L	4.44		72	60-130			
Anthracene	4.54	0.010 µg/L	4.44		102	70-130			
Benz (a) anthracene	4.30	0.010 µg/L	4.44		97	70-130			
Benzo (a) pyrene	4.02	0.010 µg/L	4.44		91	70-130			
Benzo (b) fluoranthene	4.35	0.050 µg/L	4.44		98	70-130			
Benzo (b+j) fluoranthene	8.59	0.100 µg/L	8.89		97	70-130			
Benzo (g,h,i) perylene	4.16	0.050 µg/L	4.44		94	70-130			
Benzo (k) fluoranthene	4.38	0.050 µg/L	4.44		99	70-130			
Chrysene	4.32	0.050 µg/L	4.44		97	70-130			
Dibenz (a,h) anthracene	3.86	0.050 µg/L	4.44		87	70-130			
Fluoranthene	4.72	0.030 µg/L	4.44		106	70-130			
Fluorene	4.19	0.050 µg/L	4.44		94	70-130			
Indeno (1,2,3-cd) pyrene	4.04	0.050 µg/L	4.44		91	70-130			
Naphthalene	4.34	0.200 µg/L	4.44		98	70-130			
Phenanthrene	4.51	0.100 µg/L	4.44		101	70-130			
Pyrene	4.71	0.020 µg/L	4.44		106	70-130			
Quinoline	5.16	0.050 µg/L	4.44		116	70-130			
Surrogate: Acridine-d9	2.67	µg/L	4.44		60	60-130			
Surrogate: Naphthalene-d8	4.40	µg/L	4.44		99	60-130			
Surrogate: Perylene-d12	4.60	µg/L	4.44		103	60-130			
<b>LCS Dup (B7B0926-BSD1)</b>					Prepared: 2017-02-18, Analyzed: 2017-02-18				
Acenaphthene	4.52	0.050 µg/L	4.44		102	70-130	4	20	
Acenaphthylene	4.56	0.200 µg/L	4.44		103	70-130	4	20	
Acridine	3.87	0.050 µg/L	4.44		87	60-130	20	20	
Anthracene	4.57	0.010 µg/L	4.44		103	70-130	< 1	20	
Benz (a) anthracene	4.42	0.010 µg/L	4.44		99	70-130	3	20	
Benzo (a) pyrene	4.14	0.010 µg/L	4.44		93	70-130	3	20	
Benzo (b) fluoranthene	4.50	0.050 µg/L	4.44		101	70-130	3	20	
Benzo (b+j) fluoranthene	8.85	0.100 µg/L	8.89		100	70-130	3	20	
Benzo (g,h,i) perylene	4.29	0.050 µg/L	4.44		96	70-130	3	20	
Benzo (k) fluoranthene	4.52	0.050 µg/L	4.44		102	70-130	3	20	
Chrysene	4.46	0.050 µg/L	4.44		100	70-130	3	20	
Dibenz (a,h) anthracene	4.00	0.050 µg/L	4.44		90	70-130	4	20	
Fluoranthene	4.82	0.030 µg/L	4.44		108	70-130	2	20	
Fluorene	4.27	0.050 µg/L	4.44		96	70-130	2	20	
Indeno (1,2,3-cd) pyrene	4.17	0.050 µg/L	4.44		94	70-130	3	20	
Naphthalene	4.56	0.200 µg/L	4.44		103	70-130	5	20	
Phenanthrene	4.58	0.100 µg/L	4.44		103	70-130	1	20	
Pyrene	4.84	0.020 µg/L	4.44		109	70-130	3	20	
Quinoline	5.00	0.050 µg/L	4.44		112	70-130	3	20	
Surrogate: Acridine-d9	3.66	µg/L	4.44		82	60-130			
Surrogate: Naphthalene-d8	4.55	µg/L	4.44		102	60-130			
Surrogate: Perylene-d12	4.65	µg/L	4.44		105	60-130			

**Total Metals, Batch B7B0868**

<b>Blank (B7B0868-BLK1)</b>					Prepared: 2017-02-17, Analyzed: 2017-02-17				
Aluminum, total	< 0.005	0.005 mg/L							

**APPENDIX 1: QUALITY CONTROL DATA**

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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**Total Metals, Batch B7B0868, Continued**

**Blank (B7B0868-BLK1), Continued**

Prepared: 2017-02-17, Analyzed: 2017-02-17

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

**Duplicate (B7B0868-DUP1)**

**Source: 7020950-01**

Prepared: 2017-02-17, Analyzed: 2017-02-17

Aluminum, total	0.351	0.005 mg/L		0.354		< 1		29	
Antimony, total	0.0002	0.0001 mg/L		0.0002				31	
Arsenic, total	< 0.0005	0.0005 mg/L		< 0.0005				15	
Barium, total	0.009	0.005 mg/L		0.008				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	0.013	0.004 mg/L		0.030		78		29	
Cadmium, total	< 0.00001	0.00001 mg/L		< 0.00001				33	
Calcium, total	38.9	0.2 mg/L		38.7		< 1		12	
Chromium, total	0.0007	0.0005 mg/L		0.0008				12	
Cobalt, total	0.00024	0.00005 mg/L		0.00025		5		13	
Copper, total	0.0018	0.0002 mg/L		0.0018		2		37	
Iron, total	0.38	0.01 mg/L		0.39		2		18	
Lead, total	0.0003	0.0001 mg/L		0.0003				23	
Lithium, total	0.0003	0.0001 mg/L		0.0003				19	
Magnesium, total	5.82	0.01 mg/L		5.81		< 1		10	
Manganese, total	0.0079	0.0002 mg/L		0.0078		2		13	
Molybdenum, total	0.0006	0.0001 mg/L		0.0006		1		20	
Nickel, total	0.0010	0.0002 mg/L		0.0010		3		28	
Phosphorus, total	< 0.02	0.02 mg/L		< 0.02				24	

**APPENDIX 1: QUALITY CONTROL DATA**

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>Total Metals, Batch B7B0868, Continued</b>									
<b>Duplicate (B7B0868-DUP1), Continued</b>		<b>Source: 7020950-01</b>		<b>Prepared: 2017-02-17, Analyzed: 2017-02-17</b>					
Potassium, total	0.77	0.02 mg/L		0.76			1	13	
Selenium, total	< 0.0005	0.0005 mg/L		< 0.0005				24	
Silicon, total	4.0	0.5 mg/L		3.9			2	11	
Silver, total	< 0.00005	0.00005 mg/L		< 0.00005				18	
Sodium, total	11.6	0.02 mg/L		11.6			< 1	10	
Strontium, total	0.113	0.001 mg/L		0.112			< 1	9	
Sulfur, total	18	1 mg/L		17			3	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	0.018	0.005 mg/L		0.017				32	
Uranium, total	0.00044	0.00002 mg/L		0.00045			1	14	
Vanadium, total	0.001	0.001 mg/L		0.001				17	
Zinc, total	< 0.004	0.004 mg/L		< 0.004				8	
Zirconium, total	0.0001	0.0001 mg/L		0.0001				60	
<b>Matrix Spike (B7B0868-MS1)</b>		<b>Source: 7020950-02</b>		<b>Prepared: 2017-02-17, Analyzed: 2017-02-17</b>					
Antimony, total	0.421	0.0001 mg/L	0.400	0.0002	105			84-125	
Arsenic, total	0.205	0.0005 mg/L	0.200	0.0006	102			85-116	
Barium, total	1.03	0.005 mg/L	1.00	0.020	101			87-114	
Beryllium, total	0.106	0.0001 mg/L	0.100	< 0.0001	106			72-116	
Cadmium, total	0.101	0.00001 mg/L	0.100	0.00001	101			90-112	
Chromium, total	0.408	0.0005 mg/L	0.400	0.0045	101			89-120	
Cobalt, total	0.402	0.00005 mg/L	0.400	0.00113	100			88-120	
Copper, total	0.420	0.0002 mg/L	0.400	0.0056	104			88-125	
Iron, total	4.54	0.01 mg/L	2.00	2.61	96			88-119	
Lead, total	0.208	0.0001 mg/L	0.200	0.0012	103			89-118	
Manganese, total	0.435	0.0002 mg/L	0.400	0.0347	100			84-120	
Nickel, total	0.416	0.0002 mg/L	0.400	0.0045	103			87-119	
Selenium, total	0.107	0.0005 mg/L	0.100	< 0.0005	107			85-113	
Silver, total	0.108	0.00005 mg/L	0.100	< 0.00005	108			89-119	
Thallium, total	0.105	0.00002 mg/L	0.100	< 0.00002	105			92-119	
Vanadium, total	0.404	0.001 mg/L	0.400	0.007	99			87-117	
Zinc, total	1.04	0.004 mg/L	1.00	0.008	104			85-116	
<b>Reference (B7B0868-SRM1)</b>		<b>Prepared: 2017-02-17, Analyzed: 2017-02-17</b>							
Aluminum, total	0.310	0.005 mg/L	0.303		102			81-129	
Antimony, total	0.0556	0.0001 mg/L	0.0511		109			88-114	
Arsenic, total	0.120	0.0005 mg/L	0.118		101			88-114	
Barium, total	0.808	0.005 mg/L	0.823		98			72-104	
Beryllium, total	0.0531	0.0001 mg/L	0.0496		107			76-131	
Boron, total	3.45	0.004 mg/L	3.45		100			75-121	
Cadmium, total	0.0503	0.00001 mg/L	0.0495		102			89-111	
Calcium, total	12.0	0.2 mg/L	11.6		103			86-121	
Chromium, total	0.252	0.0005 mg/L	0.250		101			89-114	
Cobalt, total	0.0397	0.00005 mg/L	0.0377		105			91-113	
Copper, total	0.517	0.0002 mg/L	0.486		106			91-115	
Iron, total	0.52	0.01 mg/L	0.488		107			77-124	
Lead, total	0.207	0.0001 mg/L	0.204		101			92-113	
Lithium, total	0.425	0.0001 mg/L	0.403		106			85-115	
Magnesium, total	3.92	0.01 mg/L	3.79		104			78-120	
Manganese, total	0.111	0.0002 mg/L	0.109		102			90-114	
Molybdenum, total	0.206	0.0001 mg/L	0.198		104			90-111	
Nickel, total	0.260	0.0002 mg/L	0.249		105			90-111	
Phosphorus, total	0.22	0.02 mg/L	0.227		99			85-115	
Potassium, total	7.68	0.02 mg/L	7.21		106			84-113	

**APPENDIX 1: QUALITY CONTROL DATA**

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>Total Metals, Batch B7B0868, Continued</b>									
<b>Reference (B7B0868-SRM1), Continued</b>					Prepared: 2017-02-17, Analyzed: 2017-02-17				
Selenium, total	0.132	0.0005 mg/L	0.121		109	85-115			
Sodium, total	7.66	0.02 mg/L	7.54		102	82-123			
Strontium, total	0.380	0.001 mg/L	0.375		101	88-112			
Thallium, total	0.0844	0.00002 mg/L	0.0805		105	91-114			
Uranium, total	0.0308	0.00002 mg/L	0.0306		101	85-120			
Vanadium, total	0.383	0.001 mg/L	0.386		99	86-111			
Zinc, total	2.58	0.004 mg/L	2.49		103	85-111			

**Total Metals, Batch B7B1002**

<b>Blank (B7B1002-BLK1)</b>					Prepared: 2017-02-20, Analyzed: 2017-02-20				
Mercury, total	< 0.00002	0.00002 mg/L							
<b>Blank (B7B1002-BLK2)</b>					Prepared: 2017-02-20, Analyzed: 2017-02-20				
Mercury, total	< 0.00002	0.00002 mg/L							
<b>Reference (B7B1002-SRM1)</b>					Prepared: 2017-02-20, Analyzed: 2017-02-20				
Mercury, total	0.00506	0.00002 mg/L	0.00489		103	50-150			
<b>Reference (B7B1002-SRM2)</b>					Prepared: 2017-02-20, Analyzed: 2017-02-20				
Mercury, total	0.00482	0.00002 mg/L	0.00489		98	50-150			

**Volatile Organic Compounds (VOC), Batch B7B0851**

<b>Blank (B7B0851-BLK1)</b>					Prepared: 2017-02-17, Analyzed: 2017-02-17				
Benzene	< 0.5	0.5 µg/L							
Bromodichloromethane	< 1.0	1.0 µg/L							
Bromoform	< 1.0	1.0 µg/L							
Carbon tetrachloride	< 0.5	0.5 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	< 0.2	0.2 µg/L							
Dibromomethane	< 1.0	1.0 µg/L							
1,2-Dichlorobenzene	< 0.5	0.5 µg/L							
1,3-Dichlorobenzene	< 1.0	1.0 µg/L							
1,4-Dichlorobenzene	< 1.0	1.0 µg/L							
1,1-Dichloroethane	< 1.0	1.0 µg/L							
1,2-Dichloroethane	< 1.0	1.0 µg/L							
1,1-Dichloroethene	< 1.0	1.0 µg/L							
cis-1,2-Dichloroethene	< 1.0	1.0 µg/L							
trans-1,2-Dichloroethene	< 1.0	1.0 µg/L							
1,2-Dichloropropane	< 1.0	1.0 µg/L							
cis-1,3-Dichloropropene	< 1.0	1.0 µg/L							
trans-1,3-Dichloropropene	< 1.0	1.0 µg/L							
Ethylbenzene	< 1.0	1.0 µg/L							
Methyl tert-butyl ether	< 1.0	1.0 µg/L							
Methylene chloride	< 3.0	3.0 µg/L							
Styrene	< 1.0	1.0 µg/L							
1,1,1,2-Tetrachloroethane	< 1.0	1.0 µg/L							
1,1,2,2-Tetrachloroethane	< 0.5	0.5 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							

**APPENDIX 1: QUALITY CONTROL DATA**

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>Volatile Organic Compounds (VOC), Batch B7B0851, Continued</b>									
<b>Blank (B7B0851-BLK1), Continued</b>					Prepared: 2017-02-17, Analyzed: 2017-02-17				
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	< 1.0	1.0 µg/L							
Xylenes (total)	< 2.0	2.0 µg/L							
Surrogate: Toluene-d8	23.8	µg/L	25.0		95	70-130			
Surrogate: 4-Bromofluorobenzene	22.9	µg/L	25.0		91	70-130			
Surrogate: 1,4-Dichlorobenzene-d4	18.4	µg/L	25.0		74	70-130			
<b>LCS (B7B0851-BS1)</b>					Prepared: 2017-02-17, Analyzed: 2017-02-17				
Benzene	22.8	0.5 µg/L	20.0		114	70-130			
Bromodichloromethane	22.7	1.0 µg/L	20.0		113	70-130			
Bromoform	20.8	1.0 µg/L	20.0		104	70-130			
Carbon tetrachloride	21.3	0.5 µg/L	20.0		106	70-130			
Chlorobenzene	23.0	1.0 µg/L	20.0		115	70-130			
Chloroethane	19.7	2.0 µg/L	20.0		98	70-130			
Chloroform	22.8	1.0 µg/L	20.0		114	70-130			
Chloromethane	19.7	2.0 µg/L	20.0		98	70-130			
Dibromochloromethane	21.5	1.0 µg/L	20.0		108	70-130			
1,2-Dibromoethane	22.2	0.2 µg/L	20.0		111	70-130			
Dibromomethane	22.6	1.0 µg/L	20.0		113	70-130			
1,2-Dichlorobenzene	22.5	0.5 µg/L	20.0		113	70-130			
1,3-Dichlorobenzene	21.6	1.0 µg/L	20.0		108	70-130			
1,4-Dichlorobenzene	22.6	1.0 µg/L	20.0		113	70-130			
1,1-Dichloroethane	22.9	1.0 µg/L	20.0		115	70-130			
1,2-Dichloroethane	23.4	1.0 µg/L	20.0		117	70-130			
1,1-Dichloroethene	21.9	1.0 µg/L	20.0		110	70-130			
cis-1,2-Dichloroethene	22.2	1.0 µg/L	20.0		111	70-130			
trans-1,2-Dichloroethene	21.4	1.0 µg/L	20.0		107	70-130			
1,2-Dichloropropane	23.6	1.0 µg/L	20.0		118	70-130			
cis-1,3-Dichloropropene	21.2	1.0 µg/L	20.0		106	70-130			
trans-1,3-Dichloropropene	20.4	1.0 µg/L	20.0		102	70-130			
Ethylbenzene	22.3	1.0 µg/L	20.0		111	70-130			
Methyl tert-butyl ether	22.1	1.0 µg/L	20.0		111	70-130			
Methylene chloride	21.4	3.0 µg/L	20.0		107	70-130			
Styrene	23.3	1.0 µg/L	20.0		117	70-130			
1,1,1,2-Tetrachloroethane	20.9	1.0 µg/L	20.0		105	70-130			
1,1,2,2-Tetrachloroethane	23.9	0.5 µg/L	20.0		119	70-130			
Tetrachloroethene	21.7	1.0 µg/L	20.0		108	70-130			
Toluene	23.1	1.0 µg/L	20.0		116	70-130			
1,1,1-Trichloroethane	22.0	1.0 µg/L	20.0		110	70-130			
1,1,2-Trichloroethane	23.4	1.0 µg/L	20.0		117	70-130			
Trichloroethene	22.8	1.0 µg/L	20.0		114	70-130			
Trichlorofluoromethane	20.5	1.0 µg/L	20.0		102	70-130			
Vinyl chloride	22.7	1.0 µg/L	20.0		114	70-130			
Xylenes (total)	64.6	2.0 µg/L	60.0		108	70-130			
Surrogate: Toluene-d8	29.5	µg/L	25.0		118	70-130			
Surrogate: 4-Bromofluorobenzene	29.6	µg/L	25.0		118	70-130			
Surrogate: 1,4-Dichlorobenzene-d4	33.1	µg/L	25.0		132	70-130			S02
<b>Duplicate (B7B0851-DUP1)</b>					Source: 7020950-01 Prepared: 2017-02-17, Analyzed: 2017-02-17				
Benzene	< 0.5	0.5 µg/L		< 0.5				20	
Bromodichloromethane	< 1.0	1.0 µg/L		< 1.0				20	
Bromoform	< 1.0	1.0 µg/L		< 1.0				20	
Carbon tetrachloride	< 0.5	0.5 µg/L		< 0.5				20	
Chlorobenzene	< 1.0	1.0 µg/L		< 1.0				20	

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
<b>Volatile Organic Compounds (VOC), Batch B7B0851, Continued</b>									
<b>Duplicate (B7B0851-DUP1), Continued</b>		<b>Source: 7020950-01</b>		<b>Prepared: 2017-02-17, Analyzed: 2017-02-17</b>					
Chloroethane	< 2.0	2.0 µg/L		< 2.0				20	
Chloroform	< 1.0	1.0 µg/L		< 1.0				20	
Chloromethane	< 2.0	2.0 µg/L		< 2.0				20	
Dibromochloromethane	< 1.0	1.0 µg/L		< 1.0				20	
1,2-Dibromoethane	< 0.2	0.2 µg/L		< 0.2				20	
Dibromomethane	< 1.0	1.0 µg/L		< 1.0				20	
1,2-Dichlorobenzene	< 0.5	0.5 µg/L		< 0.5				20	
1,3-Dichlorobenzene	< 1.0	1.0 µg/L		< 1.0				20	
1,4-Dichlorobenzene	< 1.0	1.0 µg/L		< 1.0				20	
1,1-Dichloroethane	< 1.0	1.0 µg/L		< 1.0				20	
1,2-Dichloroethane	< 1.0	1.0 µg/L		< 1.0				20	
1,1-Dichloroethene	< 1.0	1.0 µg/L		< 1.0				20	
cis-1,2-Dichloroethene	< 1.0	1.0 µg/L		< 1.0				20	
trans-1,2-Dichloroethene	< 1.0	1.0 µg/L		< 1.0				20	
1,2-Dichloropropane	< 1.0	1.0 µg/L		< 1.0				20	
cis-1,3-Dichloropropene	< 1.0	1.0 µg/L		< 1.0				20	
trans-1,3-Dichloropropene	< 1.0	1.0 µg/L		< 1.0				20	
Ethylbenzene	< 1.0	1.0 µg/L		< 1.0				20	
Methyl tert-butyl ether	< 1.0	1.0 µg/L		< 1.0				20	
Methylene chloride	< 3.0	3.0 µg/L		< 3.0				20	
Styrene	< 1.0	1.0 µg/L		< 1.0				20	
1,1,1,2-Tetrachloroethane	< 1.0	1.0 µg/L		< 1.0				20	
1,1,2,2-Tetrachloroethane	< 0.5	0.5 µg/L		< 0.5				20	
Tetrachloroethene	< 1.0	1.0 µg/L		< 1.0				20	
Toluene	< 1.0	1.0 µg/L		< 1.0				20	
1,1,1-Trichloroethane	< 1.0	1.0 µg/L		< 1.0				20	
1,1,2-Trichloroethane	< 1.0	1.0 µg/L		< 1.0				20	
Trichloroethene	< 1.0	1.0 µg/L		< 1.0				20	
Trichlorofluoromethane	< 1.0	1.0 µg/L		< 1.0				20	
Vinyl chloride	< 1.0	1.0 µg/L		< 1.0				20	
Xylenes (total)	< 2.0	2.0 µg/L		< 2.0				20	
Surrogate: Toluene-d8	26.1	µg/L	25.0		104	70-130			
Surrogate: 4-Bromofluorobenzene	24.5	µg/L	25.0		98	70-130			
Surrogate: 1,4-Dichlorobenzene-d4	19.4	µg/L	25.0		78	70-130			

**QC Qualifiers:**

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

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

		7020950-01	7020950-02
		Water	Water
		2017-02-15	2017-02-15
		2-SW1	1-Weir
Anions	Chloride (mg/L)	23.2	31.0
	Fluoride (mg/L)	< 0.10	0.12
	Nitrate (as N) (mg/L)	0.456	0.272
	Nitrite (as N) (mg/L)	< 0.010	< 0.010
	Sulfate (mg/L)	56.3	47.9
General Parameters	Alkalinity, Total (as CaCO3) (mg/L)	59	40
	Alkalinity, Phenolphthalein (as CaCO3) (mg/	< 1	< 1
	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	59	40
	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)	313	291
	pH (pH units)	7.65	7.72
	Solids, Total Dissolved (mg/L)	193	189
	Solids, Total Suspended (mg/L)	5	31
	Turbidity (NTU)	13.2	53.1
Calculated Parameters	Chromium, Trivalent (mg/L)	< 0.0010	0.0045
	Hardness, Total (as CaCO3) (mg/L)	115	93.4
Dissolved Metals	Aluminum, dissolved (mg/L)	< 0.005	0.008
	Antimony, dissolved (mg/L)	0.0002	0.0002
	Arsenic, dissolved (mg/L)	< 0.0005	< 0.0005
	Barium, dissolved (mg/L)	0.006	< 0.005
	Beryllium, dissolved (mg/L)	< 0.0001	< 0.0001
	Bismuth, dissolved (mg/L)	< 0.0001	< 0.0001
	Boron, dissolved (mg/L)	0.020	0.019
	Cadmium, dissolved (mg/L)	< 0.00001	< 0.00001
	Calcium, dissolved (mg/L)	36.8	29.6
	Chromium, dissolved (mg/L)	< 0.0005	< 0.0005
	Cobalt, dissolved (mg/L)	< 0.00005	< 0.00005
	Copper, dissolved (mg/L)	0.0008	0.0007
	Iron, dissolved (mg/L)	< 0.010	< 0.010
	Lead, dissolved (mg/L)	< 0.0001	< 0.0001
	Lithium, dissolved (mg/L)	0.0001	< 0.0001
	Magnesium, dissolved (mg/L)	5.59	4.73
	Manganese, dissolved (mg/L)	0.0018	0.0007
	Mercury, dissolved (mg/L)	< 0.00002	< 0.00002
	Molybdenum, dissolved (mg/L)	0.0007	0.0005
	Nickel, dissolved (mg/L)	0.0004	0.0004
	Phosphorus, dissolved (mg/L)	< 0.02	< 0.02
	Potassium, dissolved (mg/L)	0.70	0.75
	Selenium, dissolved (mg/L)	< 0.0005	< 0.0005
	Silicon, dissolved (mg/L)	3.3	2.0
	Silver, dissolved (mg/L)	< 0.00005	< 0.00005



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

**WORK ORDER REPORTED** 7020950  
2017-02-23

		7020950-01	7020950-02
		Water	Water
		2017-02-15	2017-02-15
		2-SW1	1-Weir
Dissolved Metals	Sodium, dissolved (mg/L)	11.3	15.6
	Strontium, dissolved (mg/L)	0.110	0.099
	Sulfur, dissolved (mg/L)	17	16
	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)	0.00041	0.00033
	Vanadium, dissolved (mg/L)	< 0.001	< 0.001
	Zinc, dissolved (mg/L)	< 0.004	0.007
	Zirconium, dissolved (mg/L)	< 0.0001	< 0.0001
	Total Metals	Aluminum, total (mg/L)	0.354
Antimony, total (mg/L)		0.0002	0.0002
Arsenic, total (mg/L)		< 0.0005	0.0006
Barium, total (mg/L)		0.008	0.020
Beryllium, total (mg/L)		< 0.0001	< 0.0001
Bismuth, total (mg/L)		< 0.0001	< 0.0001
Boron, total (mg/L)		0.030	0.024
Cadmium, total (mg/L)		< 0.00001	0.00001
Calcium, total (mg/L)		38.7	31.8
Chromium, total (mg/L)		0.0008	0.0045
Cobalt, total (mg/L)		0.00025	0.00113
Copper, total (mg/L)		0.0018	0.0056
Iron, total (mg/L)		0.39	2.61
Lead, total (mg/L)		0.0003	0.0012
Lithium, total (mg/L)		0.0003	0.0017
Magnesium, total (mg/L)		5.81	5.68
Manganese, total (mg/L)		0.0078	0.0347
Mercury, total (mg/L)		< 0.00002	< 0.00002
Molybdenum, total (mg/L)		0.0006	0.0005
Nickel, total (mg/L)		0.0010	0.0045
Phosphorus, total (mg/L)		< 0.02	0.04
Potassium, total (mg/L)		0.76	1.16
Selenium, total (mg/L)		< 0.0005	< 0.0005
Silicon, total (mg/L)		3.9	7.4
Silver, total (mg/L)		< 0.00005	< 0.00005
Sodium, total (mg/L)		11.6	16.4
Strontium, total (mg/L)		0.112	0.105
Sulfur, total (mg/L)		17	16
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
Titanium, total (mg/L)		0.017	0.141

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

**WORK ORDER REPORTED** 7020950  
2017-02-23

		7020950-01	7020950-02
		Water	Water
		2017-02-15	2017-02-15
		2-SW1	1-Weir
Total Metals	Uranium, total (mg/L)	0.00045	0.00041
	Vanadium, total (mg/L)	0.001	0.007
	Zinc, total (mg/L)	< 0.004	0.008
	Zirconium, total (mg/L)	0.0001	0.0020
BCMOE Aggregate Hydrocarbons	EPHw10-19 (ug/L)	< 250	< 250
	EPHw19-32 (ug/L)	< 250	< 250
	LEPHw (ug/L)	< 250	< 250
	HEPHw (ug/L)	< 250	< 250
	Sur: 2-Methylnonane (%)	82	84
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 (%)	74	75
Polycyclic Aromatic Hydrocarbons (PAH)	Acenaphthene (ug/L)	< 0.050	< 0.050
	Acenaphthylene (ug/L)	< 0.200	< 0.200
	Acridine (ug/L)	< 0.050	< 0.050
	Anthracene (ug/L)	< 0.010	< 0.010
	Benz (a) anthracene (ug/L)	< 0.010	< 0.010
	Benzo (a) pyrene (ug/L)	< 0.010	< 0.010
	Benzo (b) fluoranthene (ug/L)	< 0.050	< 0.050
	Benzo (b+j) fluoranthene (ug/L)	< 0.100	< 0.100
	Benzo (g,h,i) perylene (ug/L)	< 0.050	< 0.050
	Benzo (k) fluoranthene (ug/L)	< 0.050	< 0.050
	Chrysene (ug/L)	< 0.050	< 0.050
	Dibenz (a,h) anthracene (ug/L)	< 0.050	< 0.050
	Fluoranthene (ug/L)	< 0.030	< 0.030
	Fluorene (ug/L)	< 0.050	< 0.050
	Indeno (1,2,3-cd) pyrene (ug/L)	< 0.050	< 0.050
	Naphthalene (ug/L)	< 0.200	< 0.200
	Phenanthrene (ug/L)	< 0.100	< 0.100
	Pyrene (ug/L)	< 0.020	< 0.020
	Quinoline (ug/L)	< 0.050	< 0.050
	Sur: Acridine-d9 (%)	82	81
	Sur: Naphthalene-d8 (%)	99	95
Sur: Perylene-d12 (%)	103	103	
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)	< 0.5	< 0.5
	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** 7020950  
2017-02-23

		7020950-01	7020950-02
		Water	Water
		2017-02-15	2017-02-15
		2-SW1	1-Weir
Volatile Organic Compounds (VOC)	Dibromochloromethane (ug/L)	< 1.0	< 1.0
	1,2-Dibromoethane (ug/L)	< 0.2	< 0.2
	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)	< 0.5	< 0.5
	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)	< 1.0	< 1.0
	Xylenes (total) (ug/L)	< 2.0	< 2.0
	Sur: Toluene-d8 (%)	101	100
	Sur: 4-Bromofluorobenzene (%)	96	95
Sur: 1,4-Dichlorobenzene-d4 (%)	76	77	

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: 2 TAT: 5	CARO Analytical Services #110 - 4011 Viking Way Richmond BC V6V 2K9 Phone: (604) 279-1499 Fax: (604) 279-1599	Number: 20170215 Shipped via: Other

#	Sample Information	Analyses	Containers
#1	2-SW1 (Template: 01) 02/15/2017 09:30 Grab / Water	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 Metals, total, All, Low +Cr6 (RMD) TAT: 5 Comments: Cr speciation required pH in Water (KEL) TAT: 5 Solids, Total Dissolved (KEL) TAT: 5 Solids, Total Suspended (KEL) TAT: 5 Turbidity (KEL) TAT: 5 VOC in Water (RMD) TAT: 5	C03_250 mL Glass (EPH/PAH) (1) C04_40 mL Vial (VOC Water) (2) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) C19_40 mL Vial (General CG) (2) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1) C09_125 mL Plastic (CN/Cr6) (1)
#2	1-Weir (Template: 01) 02/15/2017 09:15 Grab / Water	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 Metals, total, All, Low +Cr6 (RMD) TAT: 5 Comments: Cr speciation required pH in Water (KEL) TAT: 5 Solids, Total Dissolved (KEL) TAT: 5 Solids, Total Suspended (KEL) TAT: 5 Turbidity (KEL) TAT: 5 VOC in Water (RMD) TAT: 5	C03_250 mL Glass (EPH/PAH) (1) C04_40 mL Vial (VOC Water) (2) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) C19_40 mL Vial (General CG) (2) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1) C09_125 mL Plastic (CN/Cr6) (1)

Relinquished by	Date/Time	Accepted by	Date/Time

<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: 20170215 Shipped via: Other
----------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------

#1	2-SW1 (Template: 01) 02/15/2017 09:30 Grab / Water	<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 Metals, total, All, Low +Cr6 (RMD) TAT: 5 Comments: Cr speciation required pH in Water (KEL) TAT: 5 Solids, Total Dissolved (KEL) TAT: 5 Solids, Total Suspended (KEL) TAT: 5 Turbidity (KEL) TAT: 5 VOC in Water (RMD) TAT: 5	<p style="text-align: center;"><b>Containers</b></p> C03_250 mL Glass (EPH/PAH) (1) C04_40 mL Vial (VOC Water) (2) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) C19_40 mL Vial (General CG) (2) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1) C09_125 mL Plastic (CN/Cr6) (1)
#2	1-Weir (Template: 01) 02/15/2017 09:15 Grab / Water	<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 Metals, total, All, Low +Cr6 (RMD) TAT: 5 Comments: Cr speciation required pH in Water (KEL) TAT: 5 Solids, Total Dissolved (KEL) TAT: 5 Solids, Total Suspended (KEL) TAT: 5 Turbidity (KEL) TAT: 5 VOC in Water (RMD) TAT: 5	<p style="text-align: center;"><b>Containers</b></p> C03_250 mL Glass (EPH/PAH) (1) C04_40 mL Vial (VOC Water) (2) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) C19_40 mL Vial (General CG) (2) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1) C09_125 mL Plastic (CN/Cr6) (1)



e/Time	Accepted by	Date/Time
	OTHER AG	02/16
	9.9°C	11:45