

REPORT

Appendix C – 2016 Laboratory Reports

REPORTED TO	Associated Environmental Consultants Inc. (Vernon) #200 - 2800 29th Street Vernon, BC V1T 9P9	TEL	(250) 545-3672
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ATTENTION	Nicole Penner	WORK ORDER	6100760
PO NUMBER	2016-8063.000.002	RECEIVED / TEMP	2016-10-12 17:30 / 4°C
PROJECT	2016-8063.000.002	REPORTED	2016-10-24
PROJECT INFO	Similkameen Phase 3	COC NUMBER	No Number

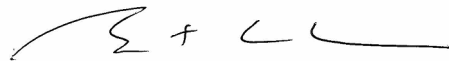
General Comments:

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.

Work Order Comments:

This is a revised report. Refer to Appendix 3 for details



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REPORTED TO PROJECT Associated Environmental Consultants Inc. (Vernon)
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Analysis Description	Method Reference	Technique	Location
Alkalinity in Water	APHA 2320 B*	Titration with H2SO4	Kelowna
Ammonia, Total in Water	APHA 4500-NH3 G*	Automated Colorimetry (Phenate)	Kelowna
Anions by IC in Water	APHA 4110 B	Ion Chromatography with Chemical Suppression of Eluent Conductivity	Kelowna
Coliforms, Total (MF-Endo) in Water	APHA 9222 B	Membrane Filtration / Incubation on m-Endo Agar	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
E. coli (MF-NA+MUG) in Water	APHA 9222 G	Membrane Filtration / Nutrient Agar with MUG	Kelowna
Hardness (as CaCO3) in Water	APHA 2340 B	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	N/A
Mercury, dissolved by CVAFS in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	Richmond
Nitrogen, Total Kjeldahl in Water	APHA 4500-Norg D*	Block Digestion and Flow Injection Analysis	Kelowna
pH in Water	APHA 4500-H+ B	Electrometry	Kelowna
Phosphorus, Total by Colorimetry in Water	APHA 4500-P B.5* / APHA 4500-P F	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	Kelowna
Phosphorus, Total Dissolved by Colorimetry in Water	APHA 4500-P B.5* / APHA 4500-P F	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	Kelowna
Salinity, Calc from EC in Water	APHA 2520 B	Conductivity Meter	Kelowna
Solids, Total Dissolved in Water	APHA 2540 C*	Gravimetry (Dried at 103-105C)	Kelowna

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
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
AO Aesthetic objective
MAC Maximum acceptable concentration (health based)
OG Operational guideline (treated water)
CFU/100 mL Colony Forming Units per 100 millilitres
mg/L Milligrams per litre
pH units pH < 7 = acidic, pH > 7 = basic
PSU Practical Salinity Units
µS/cm Microsiemens per centimetre

Standards / Guidelines Referenced in this Report:

Guidelines for Canadian Drinking Water Quality (Oct 2014)

Website: http://www.hc-sc.gc.ca/ewh-semt/alt_formats/pdf/pubs/water-eau/sum_guide-res_recom/sum_guide-res_recom-eng.pdf

Note: In some cases, the values displayed on the report represent the lowest guideline and are to be verified by the end user

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Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: 2016-02 (6100760-01) [Water] Sampled: 2016-10-12 08:30

Anions

Chloride	3.49	AO ≤ 250	0.10	mg/L	N/A	2016-10-17	
Nitrate (as N)	0.063	MAC = 10	0.010	mg/L	N/A	2016-10-17	HT1
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-10-17	HT1
Sulfate	89.7	AO ≤ 500	1.0	mg/L	N/A	2016-10-17	

General Parameters

Alkalinity, Total (as CaCO3)	154	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Phenolphthalein (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Bicarbonate (as CaCO3)	154	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Carbonate (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Hydroxide (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Ammonia, Total (as N)	0.076	N/A	0.020	mg/L	N/A	2016-10-17	
Conductivity (EC)	471	N/A	2	µS/cm	N/A	2016-10-13	
Nitrogen, Total Kjeldahl	0.15	N/A	0.05	mg/L	2016-10-17	2016-10-18	
pH	7.89	6.5-8.5	0.01	pH units	N/A	2016-10-13	HT2
Phosphorus, Total (as P)	0.033	N/A	0.002	mg/L	2016-10-14	2016-10-17	
Phosphorus, Total Dissolved	0.031	N/A	0.002	mg/L	2016-10-14	2016-10-17	
Salinity @25°C	0.2	N/A	0.1	PSU	N/A	2016-10-13	
Solids, Total Dissolved	307	AO ≤ 500	10	mg/L	N/A	2016-10-13	

Calculated Parameters

Hardness, Total (as CaCO3)	196	N/A	0.50	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	0.063	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	0.213	N/A	0.050	mg/L	N/A	N/A	
Nitrogen, Organic	0.074	N/A	0.050	mg/L	N/A	N/A	
Sodium Adsorption Ratio	0.5	N/A	0.1	-	N/A	2016-10-19	

Dissolved Metals

Aluminum, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-10-18	
Antimony, dissolved	0.0002	N/A	0.0001	mg/L	N/A	2016-10-18	
Arsenic, dissolved	0.0039	N/A	0.0005	mg/L	N/A	2016-10-18	
Barium, dissolved	0.064	N/A	0.005	mg/L	N/A	2016-10-18	
Beryllium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Bismuth, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Boron, dissolved	0.040	N/A	0.004	mg/L	N/A	2016-10-18	
Cadmium, dissolved	0.00001	N/A	0.00001	mg/L	N/A	2016-10-18	
Calcium, dissolved	60.4	N/A	0.2	mg/L	N/A	2016-10-18	
Chromium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-10-18	
Cobalt, dissolved	0.00006	N/A	0.00005	mg/L	N/A	2016-10-18	
Copper, dissolved	0.0005	N/A	0.0002	mg/L	N/A	2016-10-18	
Iron, dissolved	0.026	N/A	0.010	mg/L	N/A	2016-10-18	
Lead, dissolved	0.0004	N/A	0.0001	mg/L	N/A	2016-10-18	
Lithium, dissolved	0.0032	N/A	0.0001	mg/L	N/A	2016-10-18	
Magnesium, dissolved	10.9	N/A	0.01	mg/L	N/A	2016-10-18	
Manganese, dissolved	0.245	N/A	0.0002	mg/L	N/A	2016-10-18	
Mercury, dissolved	< 0.00002	N/A	0.00002	mg/L	2016-10-18	2016-10-19	
Molybdenum, dissolved	0.0111	N/A	0.0001	mg/L	N/A	2016-10-18	

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Sample ID: 2016-02 (6100760-01) [Water] Sampled: 2016-10-12 08:30, Continued

Dissolved Metals, Continued

Nickel, dissolved	0.0008	N/A	0.0002	mg/L	N/A	2016-10-18	
Phosphorus, dissolved	0.04	N/A	0.02	mg/L	N/A	2016-10-18	
Potassium, dissolved	4.12	N/A	0.02	mg/L	N/A	2016-10-18	
Selenium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-10-18	
Silicon, dissolved	13.9	N/A	0.5	mg/L	N/A	2016-10-18	
Silver, dissolved	0.00031	N/A	0.00005	mg/L	N/A	2016-10-18	
Sodium, dissolved	16.8	N/A	0.02	mg/L	N/A	2016-10-18	
Strontium, dissolved	0.547	N/A	0.001	mg/L	N/A	2016-10-18	
Sulfur, dissolved	32	N/A	1	mg/L	N/A	2016-10-18	
Tellurium, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Thallium, dissolved	< 0.00002	N/A	0.00002	mg/L	N/A	2016-10-18	
Thorium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Tin, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Titanium, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-10-18	
Uranium, dissolved	0.00211	N/A	0.00002	mg/L	N/A	2016-10-18	
Vanadium, dissolved	< 0.001	N/A	0.001	mg/L	N/A	2016-10-18	
Zinc, dissolved	0.032	N/A	0.004	mg/L	N/A	2016-10-18	
Zirconium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	

Microbiological Parameters

Coliforms, Total	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-10-13	
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-10-13	

Sample ID: 2016-03 (6100760-02) [Water] Sampled: 2016-10-12 09:00

Anions

Chloride	2.92	AO ≤ 250	0.10	mg/L	N/A	2016-10-17	
Nitrate (as N)	0.176	MAC = 10	0.010	mg/L	N/A	2016-10-17	HT1
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-10-17	HT1
Sulfate	29.9	AO ≤ 500	1.0	mg/L	N/A	2016-10-17	

General Parameters

Alkalinity, Total (as CaCO3)	117	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Phenolphthalein (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Bicarbonate (as CaCO3)	117	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Carbonate (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Hydroxide (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Ammonia, Total (as N)	0.048	N/A	0.020	mg/L	N/A	2016-10-17	
Conductivity (EC)	286	N/A	2	µS/cm	N/A	2016-10-13	
Nitrogen, Total Kjeldahl	0.10	N/A	0.05	mg/L	2016-10-17	2016-10-18	
pH	7.53	6.5-8.5	0.01	pH units	N/A	2016-10-13	HT2
Phosphorus, Total (as P)	0.014	N/A	0.002	mg/L	2016-10-14	2016-10-17	
Phosphorus, Total Dissolved	0.010	N/A	0.002	mg/L	2016-10-14	2016-10-17	
Salinity @25°C	0.1	N/A	0.1	PSU	N/A	2016-10-13	
Solids, Total Dissolved	180	AO ≤ 500	10	mg/L	N/A	2016-10-13	

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Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: 2016-03 (6100760-02) [Water] Sampled: 2016-10-12 09:00, Continued

Calculated Parameters

Hardness, Total (as CaCO ₃)	125	N/A	0.50	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	0.176	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	0.277	N/A	0.050	mg/L	N/A	N/A	
Nitrogen, Organic	0.053	N/A	0.050	mg/L	N/A	N/A	
Sodium Adsorption Ratio	0.2	N/A	0.1	-	N/A	2016-10-19	

Dissolved Metals

Aluminum, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-10-18	
Antimony, dissolved	0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Arsenic, dissolved	0.0010	N/A	0.0005	mg/L	N/A	2016-10-18	
Barium, dissolved	0.040	N/A	0.005	mg/L	N/A	2016-10-18	
Beryllium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Bismuth, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Boron, dissolved	0.027	N/A	0.004	mg/L	N/A	2016-10-18	
Cadmium, dissolved	0.00002	N/A	0.00001	mg/L	N/A	2016-10-18	
Calcium, dissolved	38.6	N/A	0.2	mg/L	N/A	2016-10-18	
Chromium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-10-18	
Cobalt, dissolved	0.00006	N/A	0.00005	mg/L	N/A	2016-10-18	
Copper, dissolved	0.0340	N/A	0.0002	mg/L	N/A	2016-10-18	
Iron, dissolved	< 0.010	N/A	0.010	mg/L	N/A	2016-10-18	
Lead, dissolved	0.0003	N/A	0.0001	mg/L	N/A	2016-10-18	
Lithium, dissolved	0.0013	N/A	0.0001	mg/L	N/A	2016-10-18	
Magnesium, dissolved	7.03	N/A	0.01	mg/L	N/A	2016-10-18	
Manganese, dissolved	0.535	N/A	0.0002	mg/L	N/A	2016-10-18	
Mercury, dissolved	< 0.00002	N/A	0.00002	mg/L	2016-10-18	2016-10-19	
Molybdenum, dissolved	0.0028	N/A	0.0001	mg/L	N/A	2016-10-18	
Nickel, dissolved	0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Phosphorus, dissolved	< 0.02	N/A	0.02	mg/L	N/A	2016-10-18	
Potassium, dissolved	1.77	N/A	0.02	mg/L	N/A	2016-10-18	
Selenium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-10-18	
Silicon, dissolved	10.0	N/A	0.5	mg/L	N/A	2016-10-18	
Silver, dissolved	0.00013	N/A	0.00005	mg/L	N/A	2016-10-18	
Sodium, dissolved	5.64	N/A	0.02	mg/L	N/A	2016-10-18	
Strontium, dissolved	0.216	N/A	0.001	mg/L	N/A	2016-10-18	
Sulfur, dissolved	10	N/A	1	mg/L	N/A	2016-10-18	
Tellurium, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Thallium, dissolved	< 0.00002	N/A	0.00002	mg/L	N/A	2016-10-18	
Thorium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Tin, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Titanium, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-10-18	
Uranium, dissolved	0.00123	N/A	0.00002	mg/L	N/A	2016-10-18	
Vanadium, dissolved	< 0.001	N/A	0.001	mg/L	N/A	2016-10-18	
Zinc, dissolved	0.006	N/A	0.004	mg/L	N/A	2016-10-18	
Zirconium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	

Microbiological Parameters

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Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: 2016-03 (6100760-02) [Water] Sampled: 2016-10-12 09:00, Continued

Microbiological Parameters, Continued

Coliforms, Total	5	MAC = None Detected	1	CFU/100 mL	N/A	2016-10-13	
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-10-13	

Sample ID: 2016-04 (6100760-03) [Water] Sampled: 2016-10-12 11:10

Anions

Chloride	6.55	AO ≤ 250	0.10	mg/L	N/A	2016-10-17	
Nitrate (as N)	0.434	MAC = 10	0.010	mg/L	N/A	2016-10-17	HT1
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-10-17	HT1
Sulfate	401	AO ≤ 500	1.0	mg/L	N/A	2016-10-17	

General Parameters

Alkalinity, Total (as CaCO ₃)	218	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Bicarbonate (as CaCO ₃)	218	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Carbonate (as CaCO ₃)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Hydroxide (as CaCO ₃)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Ammonia, Total (as N)	0.040	N/A	0.020	mg/L	N/A	2016-10-17	
Conductivity (EC)	1060	N/A	2	µS/cm	N/A	2016-10-13	
Nitrogen, Total Kjeldahl	0.11	N/A	0.05	mg/L	2016-10-17	2016-10-18	
pH	7.70	6.5-8.5	0.01	pH units	N/A	2016-10-13	HT2
Phosphorus, Total (as P)	0.022	N/A	0.002	mg/L	2016-10-14	2016-10-17	
Phosphorus, Total Dissolved	0.012	N/A	0.002	mg/L	2016-10-14	2016-10-17	
Salinity @25°C	0.6	N/A	0.1	PSU	N/A	2016-10-13	
Solids, Total Dissolved	804	AO ≤ 500	10	mg/L	N/A	2016-10-13	

Calculated Parameters

Hardness, Total (as CaCO ₃)	556	N/A	0.50	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	0.434	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	0.541	N/A	0.050	mg/L	N/A	N/A	
Nitrogen, Organic	0.067	N/A	0.050	mg/L	N/A	N/A	
Sodium Adsorption Ratio	0.4	N/A	0.1	-	N/A	2016-10-19	

Dissolved Metals

Aluminum, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-10-18	
Antimony, dissolved	0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Arsenic, dissolved	0.0025	N/A	0.0005	mg/L	N/A	2016-10-18	
Barium, dissolved	0.052	N/A	0.005	mg/L	N/A	2016-10-18	
Beryllium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Bismuth, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Boron, dissolved	0.019	N/A	0.004	mg/L	N/A	2016-10-18	
Cadmium, dissolved	0.00001	N/A	0.00001	mg/L	N/A	2016-10-18	
Calcium, dissolved	158	N/A	0.2	mg/L	N/A	2016-10-18	
Chromium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-10-18	
Cobalt, dissolved	< 0.00005	N/A	0.00005	mg/L	N/A	2016-10-18	

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Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: 2016-04 (6100760-03) [Water] Sampled: 2016-10-12 11:10, Continued

Dissolved Metals, Continued

Copper, dissolved	0.0015	N/A	0.0002	mg/L	N/A	2016-10-18	
Iron, dissolved	< 0.010	N/A	0.010	mg/L	N/A	2016-10-18	
Lead, dissolved	0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Lithium, dissolved	0.0073	N/A	0.0001	mg/L	N/A	2016-10-18	
Magnesium, dissolved	39.4	N/A	0.01	mg/L	N/A	2016-10-18	
Manganese, dissolved	0.0016	N/A	0.0002	mg/L	N/A	2016-10-18	
Mercury, dissolved	< 0.00002	N/A	0.00002	mg/L	2016-10-18	2016-10-19	
Molybdenum, dissolved	0.0098	N/A	0.0001	mg/L	N/A	2016-10-18	
Nickel, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Phosphorus, dissolved	< 0.02	N/A	0.02	mg/L	N/A	2016-10-18	
Potassium, dissolved	7.14	N/A	0.02	mg/L	N/A	2016-10-18	
Selenium, dissolved	0.0036	N/A	0.0005	mg/L	N/A	2016-10-18	
Silicon, dissolved	12.8	N/A	0.5	mg/L	N/A	2016-10-18	
Silver, dissolved	0.00009	N/A	0.00005	mg/L	N/A	2016-10-18	
Sodium, dissolved	19.7	N/A	0.02	mg/L	N/A	2016-10-18	
Strontium, dissolved	1.12	N/A	0.001	mg/L	N/A	2016-10-18	
Sulfur, dissolved	138	N/A	1	mg/L	N/A	2016-10-18	
Tellurium, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Thallium, dissolved	< 0.00002	N/A	0.00002	mg/L	N/A	2016-10-18	
Thorium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Tin, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Titanium, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-10-18	
Uranium, dissolved	0.00388	N/A	0.00002	mg/L	N/A	2016-10-18	
Vanadium, dissolved	< 0.001	N/A	0.001	mg/L	N/A	2016-10-18	
Zinc, dissolved	0.016	N/A	0.004	mg/L	N/A	2016-10-18	
Zirconium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	

Microbiological Parameters

Coliforms, Total	1	MAC = None Detected	1	CFU/100 mL	N/A	2016-10-13	
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-10-13	

Sample ID: 2016-05 (6100760-04) [Water] Sampled: 2016-10-12 11:30

Anions

Chloride	2.66	AO ≤ 250	0.10	mg/L	N/A	2016-10-17	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	N/A	2016-10-17	HT1
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-10-17	HT1
Sulfate	665	AO ≤ 500	1.0	mg/L	N/A	2016-10-17	

General Parameters

Alkalinity, Total (as CaCO3)	134	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Phenolphthalein (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Bicarbonate (as CaCO3)	134	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Carbonate (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Hydroxide (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-10-13	

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Sample ID: 2016-05 (6100760-04) [Water] Sampled: 2016-10-12 11:30, Continued

General Parameters, Continued

Ammonia, Total (as N)	0.196	N/A	0.020	mg/L	N/A	2016-10-17	
Conductivity (EC)	1390	N/A	2	µS/cm	N/A	2016-10-13	
Nitrogen, Total Kjeldahl	0.30	N/A	0.05	mg/L	2016-10-17	2016-10-18	
pH	7.77	6.5-8.5	0.01	pH units	N/A	2016-10-13	HT2
Phosphorus, Total (as P)	0.021	N/A	0.002	mg/L	2016-10-14	2016-10-17	
Phosphorus, Total Dissolved	0.017	N/A	0.002	mg/L	2016-10-14	2016-10-17	
Salinity @25°C	0.7	N/A	0.1	PSU	N/A	2016-10-13	
Solids, Total Dissolved	1170	AO ≤ 500	10	mg/L	N/A	2016-10-13	

Calculated Parameters

Hardness, Total (as CaCO3)	680	N/A	0.50	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	< 0.010	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	0.305	N/A	0.050	mg/L	N/A	N/A	
Nitrogen, Organic	0.109	N/A	0.050	mg/L	N/A	N/A	
Sodium Adsorption Ratio	0.7	N/A	0.1	-	N/A	2016-10-19	

Dissolved Metals

Aluminum, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-10-18	
Antimony, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Arsenic, dissolved	0.0065	N/A	0.0005	mg/L	N/A	2016-10-18	
Barium, dissolved	0.013	N/A	0.005	mg/L	N/A	2016-10-18	
Beryllium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Bismuth, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Boron, dissolved	0.055	N/A	0.004	mg/L	N/A	2016-10-18	
Cadmium, dissolved	< 0.00001	N/A	0.00001	mg/L	N/A	2016-10-18	
Calcium, dissolved	217	N/A	0.2	mg/L	N/A	2016-10-18	
Chromium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-10-18	
Cobalt, dissolved	0.00006	N/A	0.00005	mg/L	N/A	2016-10-18	
Copper, dissolved	0.0004	N/A	0.0002	mg/L	N/A	2016-10-18	
Iron, dissolved	0.233	N/A	0.010	mg/L	N/A	2016-10-18	
Lead, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Lithium, dissolved	0.0090	N/A	0.0001	mg/L	N/A	2016-10-18	
Magnesium, dissolved	33.7	N/A	0.01	mg/L	N/A	2016-10-18	
Manganese, dissolved	0.170	N/A	0.0002	mg/L	N/A	2016-10-18	
Mercury, dissolved	< 0.00002	N/A	0.00002	mg/L	2016-10-18	2016-10-19	
Molybdenum, dissolved	0.0560	N/A	0.0001	mg/L	N/A	2016-10-18	
Nickel, dissolved	0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Phosphorus, dissolved	0.04	N/A	0.02	mg/L	N/A	2016-10-18	
Potassium, dissolved	7.71	N/A	0.02	mg/L	N/A	2016-10-18	
Selenium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-10-18	
Silicon, dissolved	19.0	N/A	0.5	mg/L	N/A	2016-10-18	
Silver, dissolved	0.00008	N/A	0.00005	mg/L	N/A	2016-10-18	
Sodium, dissolved	42.7	N/A	0.02	mg/L	N/A	2016-10-18	
Strontium, dissolved	3.07	N/A	0.001	mg/L	N/A	2016-10-18	
Sulfur, dissolved	234	N/A	1	mg/L	N/A	2016-10-18	
Tellurium, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	

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Sample ID: 2016-05 (6100760-04) [Water] Sampled: 2016-10-12 11:30, Continued

Dissolved Metals, Continued

Thallium, dissolved	< 0.00002	N/A	0.00002	mg/L	N/A	2016-10-18	
Thorium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Tin, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Titanium, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-10-18	
Uranium, dissolved	0.00296	N/A	0.00002	mg/L	N/A	2016-10-18	
Vanadium, dissolved	< 0.001	N/A	0.001	mg/L	N/A	2016-10-18	
Zinc, dissolved	0.010	N/A	0.004	mg/L	N/A	2016-10-18	
Zirconium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	

Microbiological Parameters

Coliforms, Total	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-10-13	
Background Colonies	> 200	N/A	200	CFU/100 mL	N/A	2016-10-13	
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-10-13	

Sample ID: 2016-06 (6100760-05) [Water] Sampled: 2016-10-12 11:40

Anions

Chloride	2.59	AO ≤ 250	0.10	mg/L	N/A	2016-10-17	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	N/A	2016-10-17	HT1
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-10-17	HT1
Sulfate	667	AO ≤ 500	1.0	mg/L	N/A	2016-10-17	

General Parameters

Alkalinity, Total (as CaCO ₃)	136	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Bicarbonate (as CaCO ₃)	136	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Carbonate (as CaCO ₃)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Hydroxide (as CaCO ₃)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Ammonia, Total (as N)	0.187	N/A	0.020	mg/L	N/A	2016-10-18	
Conductivity (EC)	1390	N/A	2	µS/cm	N/A	2016-10-13	
Nitrogen, Total Kjeldahl	0.30	N/A	0.05	mg/L	2016-10-17	2016-10-18	
pH	7.77	6.5-8.5	0.01	pH units	N/A	2016-10-13	HT2
Phosphorus, Total (as P)	0.020	N/A	0.002	mg/L	2016-10-14	2016-10-17	
Phosphorus, Total Dissolved	0.018	N/A	0.002	mg/L	2016-10-14	2016-10-17	
Salinity @25°C	0.7	N/A	0.1	PSU	N/A	2016-10-13	
Solids, Total Dissolved	1170	AO ≤ 500	10	mg/L	N/A	2016-10-13	

Calculated Parameters

Hardness, Total (as CaCO ₃)	721	N/A	0.50	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	< 0.010	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	0.297	N/A	0.050	mg/L	N/A	N/A	
Nitrogen, Organic	0.110	N/A	0.050	mg/L	N/A	N/A	
Sodium Adsorption Ratio	0.7	N/A	0.1	-	N/A	2016-10-19	

Dissolved Metals

Aluminum, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-10-18	
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Sample ID: 2016-06 (6100760-05) [Water] Sampled: 2016-10-12 11:40, Continued

Dissolved Metals, Continued

Antimony, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Arsenic, dissolved	0.0064	N/A	0.0005	mg/L	N/A	2016-10-18	
Barium, dissolved	0.013	N/A	0.005	mg/L	N/A	2016-10-18	
Beryllium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Bismuth, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Boron, dissolved	0.058	N/A	0.004	mg/L	N/A	2016-10-18	
Cadmium, dissolved	< 0.00001	N/A	0.00001	mg/L	N/A	2016-10-18	
Calcium, dissolved	232	N/A	0.2	mg/L	N/A	2016-10-18	
Chromium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-10-18	
Cobalt, dissolved	0.00007	N/A	0.00005	mg/L	N/A	2016-10-18	
Copper, dissolved	0.0004	N/A	0.0002	mg/L	N/A	2016-10-18	
Iron, dissolved	0.244	N/A	0.010	mg/L	N/A	2016-10-18	
Lead, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Lithium, dissolved	0.0091	N/A	0.0001	mg/L	N/A	2016-10-18	
Magnesium, dissolved	34.5	N/A	0.01	mg/L	N/A	2016-10-18	
Manganese, dissolved	0.175	N/A	0.0002	mg/L	N/A	2016-10-18	
Molybdenum, dissolved	0.0577	N/A	0.0001	mg/L	N/A	2016-10-18	
Nickel, dissolved	0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Phosphorus, dissolved	0.03	N/A	0.02	mg/L	N/A	2016-10-18	
Potassium, dissolved	7.71	N/A	0.02	mg/L	N/A	2016-10-18	
Selenium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-10-18	
Silicon, dissolved	19.3	N/A	0.5	mg/L	N/A	2016-10-18	
Silver, dissolved	0.00006	N/A	0.00005	mg/L	N/A	2016-10-18	
Sodium, dissolved	43.4	N/A	0.02	mg/L	N/A	2016-10-18	
Strontium, dissolved	3.12	N/A	0.001	mg/L	N/A	2016-10-18	
Sulfur, dissolved	234	N/A	1	mg/L	N/A	2016-10-18	
Tellurium, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Thallium, dissolved	< 0.00002	N/A	0.00002	mg/L	N/A	2016-10-18	
Thorium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Tin, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Titanium, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-10-18	
Uranium, dissolved	0.00309	N/A	0.00002	mg/L	N/A	2016-10-18	
Vanadium, dissolved	< 0.001	N/A	0.001	mg/L	N/A	2016-10-18	
Zinc, dissolved	0.011	N/A	0.004	mg/L	N/A	2016-10-18	
Zirconium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	

Microbiological Parameters

Coliforms, Total	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-10-13	
Background Colonies	> 200	N/A	200	CFU/100 mL	N/A	2016-10-13	
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-10-13	

Sample ID: 2016-07 (6100760-06) [Water] Sampled: 2016-10-12 12:50

Anions

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Sample ID: 2016-07 (6100760-06) [Water] Sampled: 2016-10-12 12:50, Continued

Anions, Continued

Chloride	7.85	AO ≤ 250	0.10	mg/L	N/A	2016-10-17	
Nitrate (as N)	0.784	MAC = 10	0.010	mg/L	N/A	2016-10-17	HT1
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-10-17	HT1
Sulfate	30.1	AO ≤ 500	1.0	mg/L	N/A	2016-10-17	

General Parameters

Alkalinity, Total (as CaCO3)	127	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Phenolphthalein (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Bicarbonate (as CaCO3)	127	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Carbonate (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Hydroxide (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Ammonia, Total (as N)	0.058	N/A	0.020	mg/L	N/A	2016-10-18	
Conductivity (EC)	330	N/A	2	µS/cm	N/A	2016-10-13	
Nitrogen, Total Kjeldahl	0.06	N/A	0.05	mg/L	2016-10-17	2016-10-18	
pH	7.64	6.5-8.5	0.01	pH units	N/A	2016-10-13	HT2
Phosphorus, Total (as P)	0.010	N/A	0.002	mg/L	2016-10-14	2016-10-17	
Phosphorus, Total Dissolved	0.010	N/A	0.002	mg/L	2016-10-14	2016-10-17	
Salinity @25°C	0.2	N/A	0.1	PSU	N/A	2016-10-13	
Solids, Total Dissolved	205	AO ≤ 500	10	mg/L	N/A	2016-10-13	

Calculated Parameters

Hardness, Total (as CaCO3)	143	N/A	0.50	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	0.784	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	0.842	N/A	0.050	mg/L	N/A	N/A	
Nitrogen, Organic	< 0.050	N/A	0.050	mg/L	N/A	N/A	
Sodium Adsorption Ratio	0.2	N/A	0.1	-	N/A	2016-10-19	

Dissolved Metals

Aluminum, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-10-18	
Antimony, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Arsenic, dissolved	0.0006	N/A	0.0005	mg/L	N/A	2016-10-18	
Barium, dissolved	0.043	N/A	0.005	mg/L	N/A	2016-10-18	
Beryllium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Bismuth, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Boron, dissolved	0.015	N/A	0.004	mg/L	N/A	2016-10-18	
Cadmium, dissolved	< 0.00001	N/A	0.00001	mg/L	N/A	2016-10-18	
Calcium, dissolved	43.4	N/A	0.2	mg/L	N/A	2016-10-18	
Chromium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-10-18	
Cobalt, dissolved	< 0.00005	N/A	0.00005	mg/L	N/A	2016-10-18	
Copper, dissolved	0.0016	N/A	0.0002	mg/L	N/A	2016-10-18	
Iron, dissolved	< 0.010	N/A	0.010	mg/L	N/A	2016-10-18	
Lead, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Lithium, dissolved	0.0016	N/A	0.0001	mg/L	N/A	2016-10-18	
Magnesium, dissolved	8.43	N/A	0.01	mg/L	N/A	2016-10-18	
Manganese, dissolved	0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Mercury, dissolved	< 0.00002	N/A	0.00002	mg/L	2016-10-18	2016-10-19	
Molybdenum, dissolved	0.0025	N/A	0.0001	mg/L	N/A	2016-10-18	

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Sample ID: 2016-07 (6100760-06) [Water] Sampled: 2016-10-12 12:50, Continued

Dissolved Metals, Continued

Nickel, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Phosphorus, dissolved	< 0.02	N/A	0.02	mg/L	N/A	2016-10-18	
Potassium, dissolved	1.80	N/A	0.02	mg/L	N/A	2016-10-18	
Selenium, dissolved	0.0006	N/A	0.0005	mg/L	N/A	2016-10-18	
Silicon, dissolved	8.8	N/A	0.5	mg/L	N/A	2016-10-18	
Silver, dissolved	< 0.00005	N/A	0.00005	mg/L	N/A	2016-10-18	
Sodium, dissolved	6.85	N/A	0.02	mg/L	N/A	2016-10-18	
Strontium, dissolved	0.270	N/A	0.001	mg/L	N/A	2016-10-18	
Sulfur, dissolved	9	N/A	1	mg/L	N/A	2016-10-18	
Tellurium, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Thallium, dissolved	< 0.00002	N/A	0.00002	mg/L	N/A	2016-10-18	
Thorium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Tin, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Titanium, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-10-18	
Uranium, dissolved	0.00110	N/A	0.00002	mg/L	N/A	2016-10-18	
Vanadium, dissolved	< 0.001	N/A	0.001	mg/L	N/A	2016-10-18	
Zinc, dissolved	< 0.004	N/A	0.004	mg/L	N/A	2016-10-18	
Zirconium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	

Microbiological Parameters

Coliforms, Total	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-10-13	
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-10-13	

Sample ID: 2016-08 (6100760-07) [Water] Sampled: 2016-10-12 12:50

Anions

Chloride	7.19	AO ≤ 250	0.10	mg/L	N/A	2016-10-17	
Nitrate (as N)	0.060	MAC = 10	0.010	mg/L	N/A	2016-10-17	HT1
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-10-17	HT1
Sulfate	64.3	AO ≤ 500	1.0	mg/L	N/A	2016-10-17	

General Parameters

Alkalinity, Total (as CaCO3)	188	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Phenolphthalein (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Bicarbonate (as CaCO3)	188	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Carbonate (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Alkalinity, Hydroxide (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-10-13	
Ammonia, Total (as N)	0.054	N/A	0.020	mg/L	N/A	2016-10-18	
Conductivity (EC)	489	N/A	2	µS/cm	N/A	2016-10-13	
Nitrogen, Total Kjeldahl	0.17	N/A	0.05	mg/L	2016-10-17	2016-10-18	
pH	7.90	6.5-8.5	0.01	pH units	N/A	2016-10-13	HT2
Phosphorus, Total (as P)	0.011	N/A	0.002	mg/L	2016-10-14	2016-10-17	
Phosphorus, Total Dissolved	0.011	N/A	0.002	mg/L	2016-10-14	2016-10-17	
Salinity @25°C	0.2	N/A	0.1	PSU	N/A	2016-10-13	
Solids, Total Dissolved	299	AO ≤ 500	10	mg/L	N/A	2016-10-13	

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Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: 2016-08 (6100760-07) [Water] Sampled: 2016-10-12 12:50, Continued

Calculated Parameters

Hardness, Total (as CaCO ₃)	225	N/A	0.50	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	0.060	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	0.226	N/A	0.050	mg/L	N/A	N/A	
Nitrogen, Organic	0.112	N/A	0.050	mg/L	N/A	N/A	
Sodium Adsorption Ratio	0.5	N/A	0.1	-	N/A	2016-10-19	

Dissolved Metals

Aluminum, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-10-18	
Antimony, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Arsenic, dissolved	0.0014	N/A	0.0005	mg/L	N/A	2016-10-18	
Barium, dissolved	0.145	N/A	0.005	mg/L	N/A	2016-10-18	
Beryllium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Bismuth, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Boron, dissolved	0.014	N/A	0.004	mg/L	N/A	2016-10-18	
Cadmium, dissolved	< 0.00001	N/A	0.00001	mg/L	N/A	2016-10-18	
Calcium, dissolved	71.2	N/A	0.2	mg/L	N/A	2016-10-18	
Chromium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-10-18	
Cobalt, dissolved	< 0.00005	N/A	0.00005	mg/L	N/A	2016-10-18	
Copper, dissolved	0.0003	N/A	0.0002	mg/L	N/A	2016-10-18	
Iron, dissolved	< 0.010	N/A	0.010	mg/L	N/A	2016-10-18	
Lead, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Lithium, dissolved	0.0029	N/A	0.0001	mg/L	N/A	2016-10-18	
Magnesium, dissolved	11.4	N/A	0.01	mg/L	N/A	2016-10-18	
Manganese, dissolved	0.0925	N/A	0.0002	mg/L	N/A	2016-10-18	
Mercury, dissolved	< 0.00002	N/A	0.00002	mg/L	2016-10-18	2016-10-19	
Molybdenum, dissolved	0.0020	N/A	0.0001	mg/L	N/A	2016-10-18	
Nickel, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Phosphorus, dissolved	< 0.02	N/A	0.02	mg/L	N/A	2016-10-18	
Potassium, dissolved	2.27	N/A	0.02	mg/L	N/A	2016-10-18	
Selenium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-10-18	
Silicon, dissolved	8.4	N/A	0.5	mg/L	N/A	2016-10-18	
Silver, dissolved	< 0.00005	N/A	0.00005	mg/L	N/A	2016-10-18	
Sodium, dissolved	9.61	N/A	0.02	mg/L	N/A	2016-10-18	
Strontium, dissolved	0.369	N/A	0.001	mg/L	N/A	2016-10-18	
Sulfur, dissolved	22	N/A	1	mg/L	N/A	2016-10-18	
Tellurium, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Thallium, dissolved	< 0.00002	N/A	0.00002	mg/L	N/A	2016-10-18	
Thorium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	
Tin, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-10-18	
Titanium, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-10-18	
Uranium, dissolved	0.00153	N/A	0.00002	mg/L	N/A	2016-10-18	
Vanadium, dissolved	< 0.001	N/A	0.001	mg/L	N/A	2016-10-18	
Zinc, dissolved	0.022	N/A	0.004	mg/L	N/A	2016-10-18	
Zirconium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-10-18	

Microbiological Parameters

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Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: 2016-08 (6100760-07) [Water] Sampled: 2016-10-12 12:50, Continued

Microbiological Parameters, Continued

Coliforms, Total	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-10-13	
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-10-13	

Sample / Analysis Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

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

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

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

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Anions, Batch B6J0939									
Blank (B6J0939-BLK1) Prepared: 2016-10-16, Analyzed: 2016-10-16									
Chloride	< 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							
Blank (B6J0939-BLK2) Prepared: 2016-10-17, Analyzed: 2016-10-17									
Chloride	< 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							
Blank (B6J0939-BLK3) Prepared: 2016-10-17, Analyzed: 2016-10-17									
Chloride	< 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							
LCS (B6J0939-BS1) Prepared: 2016-10-16, Analyzed: 2016-10-16									
Chloride	16.6	0.10 mg/L	16.0		104	90-110			
Nitrate (as N)	4.28	0.010 mg/L	4.00		107	93-108			
Nitrite (as N)	1.97	0.010 mg/L	2.00		98	83-110			
Sulfate	15.9	1.0 mg/L	16.0		99	91-109			
LCS (B6J0939-BS2) Prepared: 2016-10-17, Analyzed: 2016-10-17									
Chloride	16.5	0.10 mg/L	16.0		103	90-110			
Nitrate (as N)	4.33	0.010 mg/L	4.00		108	93-108			
Nitrite (as N)	2.02	0.010 mg/L	2.00		101	83-110			
Sulfate	16.0	1.0 mg/L	16.0		100	91-109			
LCS (B6J0939-BS3) Prepared: 2016-10-17, Analyzed: 2016-10-17									
Chloride	16.3	0.10 mg/L	16.0		102	90-110			
Nitrate (as N)	4.20	0.010 mg/L	4.00		105	93-108			
Nitrite (as N)	1.98	0.010 mg/L	2.00		99	83-110			

APPENDIX 1: QUALITY CONTROL DATA

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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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Anions, Batch B6J0939, Continued

LCS (B6J0939-BS3), Continued

Prepared: 2016-10-17, Analyzed: 2016-10-17

Sulfate	15.8	1.0 mg/L	16.0		99	91-109			
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Dissolved Metals, Batch B6J1103

Blank (B6J1103-BLK1)

Prepared: 2016-10-18, Analyzed: 2016-10-18

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 (B6J1103-DUP1)

Source: 6100760-01

Prepared: 2016-10-18, Analyzed: 2016-10-18

Aluminum, dissolved	< 0.005	0.005 mg/L	< 0.005					11	
Antimony, dissolved	< 0.0001	0.0001 mg/L	0.0002					44	
Arsenic, dissolved	0.0038	0.0005 mg/L	0.0039			3		8	
Barium, dissolved	0.064	0.005 mg/L	0.064			< 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	0.038	0.004 mg/L	0.040			3		13	
Cadmium, dissolved	< 0.00001	0.00001 mg/L	0.00001					27	
Calcium, dissolved	61.0	0.2 mg/L	60.4			< 1		8	
Chromium, dissolved	< 0.0005	0.0005 mg/L	< 0.0005					14	
Cobalt, dissolved	0.00005	0.00005 mg/L	0.00006					10	
Copper, dissolved	0.0002	0.0002 mg/L	0.0005					28	
Iron, dissolved	0.024	0.010 mg/L	0.026					14	

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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Dissolved Metals, Batch B6J1103, Continued									
Duplicate (B6J1103-DUP1), Continued		Source: 6100760-01		Prepared: 2016-10-18, Analyzed: 2016-10-18					
Lead, dissolved	< 0.0001	0.0001 mg/L		0.0004					26
Lithium, dissolved	0.0032	0.0001 mg/L		0.0032			1		14
Magnesium, dissolved	11.0	0.01 mg/L		10.9			< 1		6
Manganese, dissolved	0.248	0.0002 mg/L		0.245			1		9
Molybdenum, dissolved	0.0108	0.0001 mg/L		0.0111			2		19
Nickel, dissolved	0.0002	0.0002 mg/L		0.0008					21
Phosphorus, dissolved	0.05	0.02 mg/L		0.04					14
Potassium, dissolved	4.18	0.02 mg/L		4.12			1		8
Selenium, dissolved	< 0.0005	0.0005 mg/L		< 0.0005					36
Silicon, dissolved	14.3	0.5 mg/L		13.9			3		12
Silver, dissolved	< 0.00005	0.00005 mg/L		0.00031			192		20
Sodium, dissolved	17.0	0.02 mg/L		16.8			1		6
Strontium, dissolved	0.553	0.001 mg/L		0.547			1		6
Sulfur, dissolved	32	1 mg/L		32			< 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
Uranium, dissolved	0.00207	0.00002 mg/L		0.00211			2		14
Vanadium, dissolved	< 0.001	0.001 mg/L		< 0.001					20
Zinc, dissolved	0.012	0.004 mg/L		0.032			93		11
Zirconium, dissolved	< 0.0001	0.0001 mg/L		< 0.0001					36
Matrix Spike (B6J1103-MS1)		Source: 6100760-02		Prepared: 2016-10-18, Analyzed: 2016-10-18					
Antimony, dissolved	0.411	0.0001 mg/L	0.400	0.0001	103		76-114		
Arsenic, dissolved	0.197	0.0005 mg/L	0.200	0.0010	98		81-115		
Barium, dissolved	0.985	0.005 mg/L	1.00	0.040	95		80-113		
Beryllium, dissolved	0.0994	0.0001 mg/L	0.100	< 0.0001	99		69-109		
Cadmium, dissolved	0.0908	0.00001 mg/L	0.100	0.00002	91		83-110		
Chromium, dissolved	0.370	0.0005 mg/L	0.400	< 0.0005	93		85-115		
Cobalt, dissolved	0.368	0.00005 mg/L	0.400	0.00006	92		86-114		
Copper, dissolved	0.408	0.0002 mg/L	0.400	0.0340	93		82-119		
Iron, dissolved	1.94	0.010 mg/L	2.00	< 0.010	97		80-116		
Lead, dissolved	0.181	0.0001 mg/L	0.200	0.0003	90		83-112		
Manganese, dissolved	0.909	0.0002 mg/L	0.400	0.535	94		62-131		
Nickel, dissolved	0.373	0.0002 mg/L	0.400	0.0002	93		81-115		
Selenium, dissolved	0.0855	0.0005 mg/L	0.100	< 0.0005	85		79-115		
Silver, dissolved	0.0927	0.00005 mg/L	0.100	0.00013	93		69-121		
Thallium, dissolved	0.0891	0.00002 mg/L	0.100	< 0.00002	89		84-115		
Vanadium, dissolved	0.367	0.001 mg/L	0.400	< 0.001	92		83-113		
Zinc, dissolved	0.965	0.004 mg/L	1.00	0.006	96		82-115		
Reference (B6J1103-SRM1)		Prepared: 2016-10-18, Analyzed: 2016-10-18							
Aluminum, dissolved	0.241	0.005 mg/L	0.233		104		58-142		
Antimony, dissolved	0.0485	0.0001 mg/L	0.0430		113		75-125		
Arsenic, dissolved	0.442	0.0005 mg/L	0.438		101		81-119		
Barium, dissolved	3.35	0.005 mg/L	3.35		100		83-117		
Beryllium, dissolved	0.226	0.0001 mg/L	0.213		106		80-120		
Boron, dissolved	1.64	0.004 mg/L	1.74		95		74-117		
Cadmium, dissolved	0.213	0.00001 mg/L	0.224		95		83-117		
Calcium, dissolved	7.7	0.2 mg/L	7.69		100		76-124		
Chromium, dissolved	0.427	0.0005 mg/L	0.437		98		81-119		
Cobalt, dissolved	0.126	0.00005 mg/L	0.128		99		76-124		
Copper, dissolved	0.835	0.0002 mg/L	0.844		99		84-116		
Iron, dissolved	1.32	0.010 mg/L	1.29		102		74-126		
Lead, dissolved	0.107	0.0001 mg/L	0.112		95		72-128		

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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Dissolved Metals, Batch B6J1103, Continued									
Reference (B6J1103-SRM1), Continued					Prepared: 2016-10-18, Analyzed: 2016-10-18				
Lithium, dissolved	0.120	0.0001 mg/L	0.104		115	60-140			
Magnesium, dissolved	7.01	0.01 mg/L	6.92		101	81-119			
Manganese, dissolved	0.348	0.0002 mg/L	0.345		101	84-116			
Molybdenum, dissolved	0.441	0.0001 mg/L	0.426		104	83-117			
Nickel, dissolved	0.834	0.0002 mg/L	0.840		99	74-126			
Phosphorus, dissolved	0.51	0.02 mg/L	0.495		102	68-132			
Potassium, dissolved	3.30	0.02 mg/L	3.19		104	74-126			
Selenium, dissolved	0.0292	0.0005 mg/L	0.0331		88	70-130			
Sodium, dissolved	18.6	0.02 mg/L	19.1		97	72-128			
Strontium, dissolved	0.912	0.001 mg/L	0.916		100	84-113			
Thallium, dissolved	0.0377	0.00002 mg/L	0.0393		96	57-143			
Uranium, dissolved	0.245	0.00002 mg/L	0.266		92	85-115			
Vanadium, dissolved	0.856	0.001 mg/L	0.869		99	87-113			
Zinc, dissolved	0.871	0.004 mg/L	0.881		99	72-128			

Dissolved Metals, Batch B6J1109

Blank (B6J1109-BLK1)					Prepared: 2016-10-18, Analyzed: 2016-10-19				
Mercury, dissolved	< 0.00002	0.00002 mg/L							
Duplicate (B6J1109-DUP1)					Source: 6100760-04 Prepared: 2016-10-18, Analyzed: 2016-10-19				
Mercury, dissolved	< 0.00002	0.00002 mg/L		< 0.00002				20	
Matrix Spike (B6J1109-MS1)					Source: 6100760-06 Prepared: 2016-10-18, Analyzed: 2016-10-19				
Mercury, dissolved	0.00021	0.00002 mg/L	0.000250	< 0.00002	84	70-130			
Reference (B6J1109-SRM1)					Prepared: 2016-10-18, Analyzed: 2016-10-19				
Mercury, dissolved	0.00437	0.00002 mg/L	0.00486		90	50-150			

General Parameters, Batch B6J0733

Blank (B6J0733-BLK1)					Prepared: 2016-10-13, Analyzed: 2016-10-13				
Alkalinity, Total (as CaCO3)	< 1	2 mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1	2 mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1	2 mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1	2 mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1	2 mg/L							
Conductivity (EC)	< 2	2 µS/cm							
Salinity @25°C	< 0.1	0.1 PSU							
LCS (B6J0733-BS1)					Prepared: 2016-10-13, Analyzed: 2016-10-13				
Alkalinity, Total (as CaCO3)	102	2 mg/L	100		102	96-108			
LCS (B6J0733-BS2)					Prepared: 2016-10-13, Analyzed: 2016-10-13				
Conductivity (EC)	1410	2 µS/cm	1410		100	95-104			
Salinity @25°C	0.7	0.1 PSU	0.747		100	80-120			
Duplicate (B6J0733-DUP1)					Source: 6100760-01 Prepared: 2016-10-13, Analyzed: 2016-10-13				
Alkalinity, Total (as CaCO3)	159	2 mg/L	154		3	10			
Alkalinity, Phenolphthalein (as CaCO3)	< 1	2 mg/L	< 1			10			
Alkalinity, Bicarbonate (as CaCO3)	159	2 mg/L	154		3	10			
Alkalinity, Carbonate (as CaCO3)	< 1	2 mg/L	< 1			10			
Alkalinity, Hydroxide (as CaCO3)	< 1	2 mg/L	< 1			10			
Conductivity (EC)	470	2 µS/cm	471		< 1	5			
pH	7.92	0.01 pH units	7.89		< 1	5			
Salinity @25°C	0.2	0.1 PSU	0.2			5			

APPENDIX 1: QUALITY CONTROL DATA

REPORTED TO PROJECT Associated Environmental Consultants Inc. (Vernon)
2016-8063.000.002

WORK ORDER REPORTED 6100760
2016-10-24

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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General Parameters, Batch B6J0733, Continued

Reference (B6J0733-SRM1)			Prepared: 2016-10-13, Analyzed: 2016-10-13						
pH	6.96	0.01 pH units	7.00		99	98-102			

General Parameters, Batch B6J0757

Blank (B6J0757-BLK1)			Prepared: 2016-10-17, Analyzed: 2016-10-17						
Ammonia, Total (as N)	< 0.020	0.020 mg/L							
Blank (B6J0757-BLK2)			Prepared: 2016-10-17, Analyzed: 2016-10-17						
Ammonia, Total (as N)	< 0.020	0.020 mg/L							
LCS (B6J0757-BS1)			Prepared: 2016-10-17, Analyzed: 2016-10-17						
Ammonia, Total (as N)	1.01	0.020 mg/L	1.00		101	86-111			
LCS (B6J0757-BS2)			Prepared: 2016-10-17, Analyzed: 2016-10-17						
Ammonia, Total (as N)	1.02	0.020 mg/L	1.00		102	86-111			

General Parameters, Batch B6J0796

Blank (B6J0796-BLK1)			Prepared: 2016-10-13, Analyzed: 2016-10-13						
Solids, Total Dissolved	< 10	10 mg/L							
LCS (B6J0796-BS1)			Prepared: 2016-10-13, Analyzed: 2016-10-13						
Solids, Total Dissolved	240	10 mg/L	240		100	80-120			

General Parameters, Batch B6J0837

Blank (B6J0837-BLK1)			Prepared: 2016-10-18, Analyzed: 2016-10-18						
Ammonia, Total (as N)	< 0.020	0.020 mg/L							
Blank (B6J0837-BLK2)			Prepared: 2016-10-18, Analyzed: 2016-10-18						
Ammonia, Total (as N)	< 0.020	0.020 mg/L							
Blank (B6J0837-BLK3)			Prepared: 2016-10-18, Analyzed: 2016-10-18						
Ammonia, Total (as N)	< 0.020	0.020 mg/L							
LCS (B6J0837-BS1)			Prepared: 2016-10-18, Analyzed: 2016-10-18						
Ammonia, Total (as N)	1.01	0.020 mg/L	1.00		101	86-111			
LCS (B6J0837-BS2)			Prepared: 2016-10-18, Analyzed: 2016-10-18						
Ammonia, Total (as N)	1.01	0.020 mg/L	1.00		101	86-111			
LCS (B6J0837-BS3)			Prepared: 2016-10-18, Analyzed: 2016-10-18						
Ammonia, Total (as N)	1.02	0.020 mg/L	1.00		102	86-111			

General Parameters, Batch B6J0861

Blank (B6J0861-BLK1)			Prepared: 2016-10-14, Analyzed: 2016-10-17						
Phosphorus, Total (as P)	< 0.002	0.002 mg/L							
Phosphorus, Total Dissolved	< 0.002	0.002 mg/L							
Blank (B6J0861-BLK2)			Prepared: 2016-10-14, Analyzed: 2016-10-17						
Phosphorus, Total (as P)	< 0.002	0.002 mg/L							
LCS (B6J0861-BS1)			Prepared: 2016-10-14, Analyzed: 2016-10-17						
Phosphorus, Total (as P)	0.089	0.002 mg/L	0.100		89	75-112			
Phosphorus, Total Dissolved	0.089	0.002 mg/L	0.100		89	80-120			

APPENDIX 1: QUALITY CONTROL DATA

REPORTED TO PROJECT Associated Environmental Consultants Inc. (Vernon)
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WORK ORDER REPORTED 6100760
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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
General Parameters, Batch B6J0861, Continued									
LCS (B6J0861-BS2)			Prepared: 2016-10-14, Analyzed: 2016-10-17						
Phosphorus, Total (as P)	0.094	0.002 mg/L	0.100		94	75-112			
General Parameters, Batch B6J0999									
Blank (B6J0999-BLK1)			Prepared: 2016-10-17, Analyzed: 2016-10-18						
Nitrogen, Total Kjeldahl	< 0.05	0.05 mg/L							
Blank (B6J0999-BLK2)			Prepared: 2016-10-17, Analyzed: 2016-10-18						
Nitrogen, Total Kjeldahl	< 0.05	0.05 mg/L							
LCS (B6J0999-BS1)			Prepared: 2016-10-17, Analyzed: 2016-10-18						
Nitrogen, Total Kjeldahl	1.03	0.05 mg/L	1.00		103	80-120			
LCS (B6J0999-BS2)			Prepared: 2016-10-17, Analyzed: 2016-10-18						
Nitrogen, Total Kjeldahl	0.96	0.05 mg/L	1.00		96	80-120			
Microbiological Parameters, Batch B6J0725									
Blank (B6J0725-BLK1)			Prepared: 2016-10-13, Analyzed: 2016-10-13						
Coliforms, Total	< 1	1 CFU/100 mL							
E. coli	< 1	1 CFU/100 mL							
Blank (B6J0725-BLK2)			Prepared: 2016-10-13, Analyzed: 2016-10-13						
Coliforms, Total	< 1	1 CFU/100 mL							
E. coli	< 1	1 CFU/100 mL							
Duplicate (B6J0725-DUP3)			Source: 6100760-06		Prepared: 2016-10-13, Analyzed: 2016-10-13				
Coliforms, Total	< 1	1 CFU/100 mL		< 1				68	RS2
Duplicate (B6J0725-DUP4)			Source: 6100760-07		Prepared: 2016-10-13, Analyzed: 2016-10-13				
E. coli	< 1	1 CFU/100 mL		< 1				79	RS2

QC Qualifiers:

RS2 Reported Detection Limits (RDL) for this sample have been raised due to limited sample volume.

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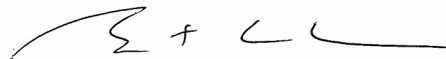
Sample ID	Changed	Change	Analysis	Analyte(s)
6100760-04	2016-10-24	Result Revised	Sulfate by IC	Sulfate
6100760-05	2016-10-24	Result Revised	Sulfate by IC	Sulfate

REPORTED TO	Associated Environmental Consultants Inc. (Vernon) #200 - 2800 29th Street Vernon, BC V1T 9P9	TEL	(250) 545-3672
		FAX	(250) 545-3654
ATTENTION	Nicole Penner	WORK ORDER	6110782
PO NUMBER	2016-8063.000.002	RECEIVED / TEMP	2016-11-09 17:25 / 7°C
PROJECT	2016-8063.000.002	REPORTED	2016-11-21
PROJECT INFO	Similkameen Phase 3	COC NUMBER	No Number

General Comments:

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

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



Authorized By:

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REPORTED TO PROJECT Associated Environmental Consultants Inc. (Vernon)
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2016-11-21

Analysis Description	Method Reference	Technique	Location
Alkalinity in Water	APHA 2320 B*	Titration with H2SO4	Kelowna
Ammonia, Total in Water	APHA 4500-NH3 G*	Automated Colorimetry (Phenate)	Kelowna
Anions by IC in Water	APHA 4110 B	Ion Chromatography with Chemical Suppression of Eluent Conductivity	Kelowna
Coliforms, Total (MF-Endo) in Water	APHA 9222 B	Membrane Filtration / Incubation on m-Endo Agar	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
E. coli (MF-NA+MUG) in Water	APHA 9222 G	Membrane Filtration / Nutrient Agar with MUG	Kelowna
Hardness (as CaCO3) in Water	APHA 2340 B	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	N/A
Mercury, dissolved by CVAFS in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	Richmond
Nitrogen, Total Kjeldahl in Water	APHA 4500-Norg D*	Block Digestion and Flow Injection Analysis	Kelowna
pH in Water	APHA 4500-H+ B	Electrometry	Kelowna
Phosphorus, Total by Colorimetry in Water	APHA 4500-P B.5* / APHA 4500-P F	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	Kelowna
Phosphorus, Total Dissolved by Colorimetry in Water	APHA 4500-P B.5* / APHA 4500-P F	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	Kelowna
Salinity, Calc from EC in Water	APHA 2520 B	Conductivity Meter	Kelowna
Solids, Total Dissolved in Water	APHA 2540 C*	Gravimetry (Dried at 103-105C)	Kelowna

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
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
AO Aesthetic objective
MAC Maximum acceptable concentration (health based)
OG Operational guideline (treated water)
CFU/100 mL Colony Forming Units per 100 millilitres
mg/L Milligrams per litre
pH units pH < 7 = acidic, pH > 7 = basic
PSU Practical Salinity Units
µS/cm Microsiemens per centimetre

Standards / Guidelines Referenced in this Report:

Guidelines for Canadian Drinking Water Quality (Oct 2014)

Website: http://www.hc-sc.gc.ca/ewh-semt/alt_formats/pdf/pubs/water-eau/sum_guide-res_recom/sum_guide-res_recom-eng.pdf

Note: In some cases, the values displayed on the report represent the lowest guideline and are to be verified by the end user

REPORTED TO PROJECT Associated Environmental Consultants Inc. (Vernon)
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WORK ORDER REPORTED 6110782
2016-11-21

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: 2016-09 (6110782-01) [Water] Sampled: 2016-11-09 09:15

Anions

Chloride	8.92	AO ≤ 250	0.10	mg/L	N/A	2016-11-11	
Nitrate (as N)	0.162	MAC = 10	0.010	mg/L	N/A	2016-11-11	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-11-11	
Sulfate	35.2	AO ≤ 500	1.0	mg/L	N/A	2016-11-11	

General Parameters

Alkalinity, Total (as CaCO3)	190	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Phenolphthalein (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Bicarbonate (as CaCO3)	190	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Carbonate (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Hydroxide (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-11-10	
Ammonia, Total (as N)	0.021	N/A	0.020	mg/L	N/A	2016-11-15	
Conductivity (EC)	440	N/A	2	µS/cm	N/A	2016-11-10	
Nitrogen, Total Kjeldahl	0.09	N/A	0.05	mg/L	2016-11-14	2016-11-15	
pH	7.79	6.5-8.5	0.01	pH units	N/A	2016-11-10	HT2
Phosphorus, Total (as P)	0.009	N/A	0.002	mg/L	2016-11-16	2016-11-17	
Phosphorus, Total Dissolved	0.006	N/A	0.002	mg/L	2016-11-16	2016-11-17	
Salinity @25°C	0.2	N/A	0.1	PSU	N/A	2016-11-10	
Solids, Total Dissolved	252	AO ≤ 500	10	mg/L	N/A	2016-11-16	

Calculated Parameters

Hardness, Total (as CaCO3)	205	N/A	0.50	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	0.162	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	0.256	N/A	0.050	mg/L	N/A	N/A	
Nitrogen, Organic	0.072	N/A	0.050	mg/L	N/A	N/A	
Sodium Adsorption Ratio	0.3	N/A	0.1	-	N/A	2016-11-21	

Dissolved Metals

Aluminum, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-11-17	
Antimony, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Arsenic, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-11-17	
Barium, dissolved	0.049	N/A	0.005	mg/L	N/A	2016-11-17	
Beryllium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Bismuth, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Boron, dissolved	0.017	N/A	0.004	mg/L	N/A	2016-11-17	
Cadmium, dissolved	< 0.00001	N/A	0.00001	mg/L	N/A	2016-11-17	
Calcium, dissolved	58.8	N/A	0.2	mg/L	N/A	2016-11-17	
Chromium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-11-17	
Cobalt, dissolved	< 0.00005	N/A	0.00005	mg/L	N/A	2016-11-17	
Copper, dissolved	0.0031	N/A	0.0002	mg/L	N/A	2016-11-17	
Iron, dissolved	< 0.010	N/A	0.010	mg/L	N/A	2016-11-17	
Lead, dissolved	0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Lithium, dissolved	0.0021	N/A	0.0001	mg/L	N/A	2016-11-17	
Magnesium, dissolved	14.0	N/A	0.01	mg/L	N/A	2016-11-17	
Manganese, dissolved	0.0002	N/A	0.0002	mg/L	N/A	2016-11-17	
Mercury, dissolved	< 0.00002	N/A	0.00002	mg/L	2016-11-15	2016-11-16	
Molybdenum, dissolved	0.0035	N/A	0.0001	mg/L	N/A	2016-11-17	

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2016-11-21

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: 2016-09 (6110782-01) [Water] Sampled: 2016-11-09 09:15, Continued

Dissolved Metals, Continued

Nickel, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-11-17	
Phosphorus, dissolved	< 0.02	N/A	0.02	mg/L	N/A	2016-11-17	
Potassium, dissolved	1.34	N/A	0.02	mg/L	N/A	2016-11-17	
Selenium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-11-17	
Silicon, dissolved	8.0	N/A	0.5	mg/L	N/A	2016-11-17	
Silver, dissolved	< 0.00005	N/A	0.00005	mg/L	N/A	2016-11-17	
Sodium, dissolved	9.54	N/A	0.02	mg/L	N/A	2016-11-17	
Strontium, dissolved	0.409	N/A	0.001	mg/L	N/A	2016-11-17	
Sulfur, dissolved	11	N/A	1	mg/L	N/A	2016-11-17	
Tellurium, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-11-17	
Thallium, dissolved	< 0.00002	N/A	0.00002	mg/L	N/A	2016-11-17	
Thorium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Tin, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-11-17	
Titanium, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-11-17	
Uranium, dissolved	0.00082	N/A	0.00002	mg/L	N/A	2016-11-17	
Vanadium, dissolved	< 0.001	N/A	0.001	mg/L	N/A	2016-11-17	
Zinc, dissolved	0.019	N/A	0.004	mg/L	N/A	2016-11-17	
Zirconium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	

Microbiological Parameters

Coliforms, Total	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-11-10	
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-11-10	

Sample ID: 2016-10 (6110782-02) [Water] Sampled: 2016-11-09 11:30

Anions

Chloride	0.71	AO ≤ 250	0.10	mg/L	N/A	2016-11-11	
Nitrate (as N)	0.051	MAC = 10	0.010	mg/L	N/A	2016-11-11	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-11-11	
Sulfate	14.5	AO ≤ 500	1.0	mg/L	N/A	2016-11-11	

General Parameters

Alkalinity, Total (as CaCO3)	54	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Phenolphthalein (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Bicarbonate (as CaCO3)	54	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Carbonate (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Hydroxide (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-11-10	
Ammonia, Total (as N)	0.028	N/A	0.020	mg/L	N/A	2016-11-15	
Conductivity (EC)	143	N/A	2	µS/cm	N/A	2016-11-10	
Nitrogen, Total Kjeldahl	0.08	N/A	0.05	mg/L	2016-11-14	2016-11-15	
pH	7.35	6.5-8.5	0.01	pH units	N/A	2016-11-10	HT2
Phosphorus, Total (as P)	0.011	N/A	0.002	mg/L	2016-11-16	2016-11-17	
Phosphorus, Total Dissolved	0.007	N/A	0.002	mg/L	2016-11-16	2016-11-17	
Salinity @25°C	< 0.1	N/A	0.1	PSU	N/A	2016-11-10	
Solids, Total Dissolved	83	AO ≤ 500	10	mg/L	N/A	2016-11-16	

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Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: 2016-10 (6110782-02) [Water] Sampled: 2016-11-09 11:30, Continued

Calculated Parameters

Hardness, Total (as CaCO ₃)	58.2	N/A	0.50	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	0.051	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	0.135	N/A	0.050	mg/L	N/A	N/A	
Nitrogen, Organic	0.056	N/A	0.050	mg/L	N/A	N/A	
Sodium Adsorption Ratio	0.2	N/A	0.1	-	N/A	2016-11-21	

Dissolved Metals

Aluminum, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-11-17	
Antimony, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Arsenic, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-11-17	
Barium, dissolved	0.005	N/A	0.005	mg/L	N/A	2016-11-17	
Beryllium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Bismuth, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Boron, dissolved	0.007	N/A	0.004	mg/L	N/A	2016-11-17	
Cadmium, dissolved	< 0.00001	N/A	0.00001	mg/L	N/A	2016-11-17	
Calcium, dissolved	18.3	N/A	0.2	mg/L	N/A	2016-11-17	
Chromium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-11-17	
Cobalt, dissolved	< 0.00005	N/A	0.00005	mg/L	N/A	2016-11-17	
Copper, dissolved	0.0073	N/A	0.0002	mg/L	N/A	2016-11-17	
Iron, dissolved	0.016	N/A	0.010	mg/L	N/A	2016-11-17	
Lead, dissolved	0.0002	N/A	0.0001	mg/L	N/A	2016-11-17	
Lithium, dissolved	0.0004	N/A	0.0001	mg/L	N/A	2016-11-17	
Magnesium, dissolved	3.04	N/A	0.01	mg/L	N/A	2016-11-17	
Manganese, dissolved	0.0111	N/A	0.0002	mg/L	N/A	2016-11-17	
Mercury, dissolved	< 0.00002	N/A	0.00002	mg/L	2016-11-15	2016-11-16	
Molybdenum, dissolved	0.0004	N/A	0.0001	mg/L	N/A	2016-11-17	
Nickel, dissolved	0.0004	N/A	0.0002	mg/L	N/A	2016-11-17	
Phosphorus, dissolved	< 0.02	N/A	0.02	mg/L	N/A	2016-11-17	
Potassium, dissolved	0.33	N/A	0.02	mg/L	N/A	2016-11-17	
Selenium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-11-17	
Silicon, dissolved	6.2	N/A	0.5	mg/L	N/A	2016-11-17	
Silver, dissolved	< 0.00005	N/A	0.00005	mg/L	N/A	2016-11-17	
Sodium, dissolved	3.00	N/A	0.02	mg/L	N/A	2016-11-17	
Strontium, dissolved	0.097	N/A	0.001	mg/L	N/A	2016-11-17	
Sulfur, dissolved	3	N/A	1	mg/L	N/A	2016-11-17	
Tellurium, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-11-17	
Thallium, dissolved	< 0.00002	N/A	0.00002	mg/L	N/A	2016-11-17	
Thorium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Tin, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-11-17	
Titanium, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-11-17	
Uranium, dissolved	0.00007	N/A	0.00002	mg/L	N/A	2016-11-17	
Vanadium, dissolved	< 0.001	N/A	0.001	mg/L	N/A	2016-11-17	
Zinc, dissolved	0.009	N/A	0.004	mg/L	N/A	2016-11-17	
Zirconium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	

Microbiological Parameters

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Sample ID: 2016-10 (6110782-02) [Water] Sampled: 2016-11-09 11:30, Continued

Microbiological Parameters, Continued

Coliforms, Total	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-11-10	
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-11-10	

Sample ID: 2016-11 (6110782-03) [Water] Sampled: 2016-11-09 14:10

Anions

Chloride	5.37	AO ≤ 250	0.10	mg/L	N/A	2016-11-11	
Nitrate (as N)	0.200	MAC = 10	0.010	mg/L	N/A	2016-11-11	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-11-11	
Sulfate	13.6	AO ≤ 500	1.0	mg/L	N/A	2016-11-11	

General Parameters

Alkalinity, Total (as CaCO ₃)	97	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Bicarbonate (as CaCO ₃)	97	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Carbonate (as CaCO ₃)	< 1	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Hydroxide (as CaCO ₃)	< 1	N/A	2	mg/L	N/A	2016-11-10	
Ammonia, Total (as N)	0.027	N/A	0.020	mg/L	N/A	2016-11-15	
Conductivity (EC)	232	N/A	2	µS/cm	N/A	2016-11-10	
Nitrogen, Total Kjeldahl	0.10	N/A	0.05	mg/L	2016-11-14	2016-11-15	
pH	7.75	6.5-8.5	0.01	pH units	N/A	2016-11-10	HT2
Phosphorus, Total (as P)	0.006	N/A	0.002	mg/L	2016-11-16	2016-11-17	
Phosphorus, Total Dissolved	0.005	N/A	0.002	mg/L	2016-11-16	2016-11-17	
Salinity @25°C	0.1	N/A	0.1	PSU	N/A	2016-11-10	
Solids, Total Dissolved	130	AO ≤ 500	10	mg/L	N/A	2016-11-16	

Calculated Parameters

Hardness, Total (as CaCO ₃)	98.6	N/A	0.50	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	0.200	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	0.302	N/A	0.050	mg/L	N/A	N/A	
Nitrogen, Organic	0.075	N/A	0.050	mg/L	N/A	N/A	
Sodium Adsorption Ratio	0.2	N/A	0.1	-	N/A	2016-11-21	

Dissolved Metals

Aluminum, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-11-17	
Antimony, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Arsenic, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-11-17	
Barium, dissolved	0.029	N/A	0.005	mg/L	N/A	2016-11-17	
Beryllium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Bismuth, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Boron, dissolved	0.009	N/A	0.004	mg/L	N/A	2016-11-17	
Cadmium, dissolved	< 0.00001	N/A	0.00001	mg/L	N/A	2016-11-17	
Calcium, dissolved	31.5	N/A	0.2	mg/L	N/A	2016-11-17	
Chromium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-11-17	
Cobalt, dissolved	< 0.00005	N/A	0.00005	mg/L	N/A	2016-11-17	

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Sample ID: 2016-11 (6110782-03) [Water] Sampled: 2016-11-09 14:10, Continued

Dissolved Metals, Continued

Copper, dissolved	0.0008	N/A	0.0002	mg/L	N/A	2016-11-17	
Iron, dissolved	< 0.010	N/A	0.010	mg/L	N/A	2016-11-17	
Lead, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Lithium, dissolved	0.0011	N/A	0.0001	mg/L	N/A	2016-11-17	
Magnesium, dissolved	4.84	N/A	0.01	mg/L	N/A	2016-11-17	
Manganese, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-11-17	
Mercury, dissolved	< 0.00002	N/A	0.00002	mg/L	2016-11-15	2016-11-16	
Molybdenum, dissolved	0.0034	N/A	0.0001	mg/L	N/A	2016-11-17	
Nickel, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-11-17	
Phosphorus, dissolved	< 0.02	N/A	0.02	mg/L	N/A	2016-11-17	
Potassium, dissolved	0.88	N/A	0.02	mg/L	N/A	2016-11-17	
Selenium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-11-17	
Silicon, dissolved	5.4	N/A	0.5	mg/L	N/A	2016-11-17	
Silver, dissolved	< 0.00005	N/A	0.00005	mg/L	N/A	2016-11-17	
Sodium, dissolved	4.63	N/A	0.02	mg/L	N/A	2016-11-17	
Strontium, dissolved	0.189	N/A	0.001	mg/L	N/A	2016-11-17	
Sulfur, dissolved	3	N/A	1	mg/L	N/A	2016-11-17	
Tellurium, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-11-17	
Thallium, dissolved	< 0.00002	N/A	0.00002	mg/L	N/A	2016-11-17	
Thorium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Tin, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-11-17	
Titanium, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-11-17	
Uranium, dissolved	0.00034	N/A	0.00002	mg/L	N/A	2016-11-17	
Vanadium, dissolved	< 0.001	N/A	0.001	mg/L	N/A	2016-11-17	
Zinc, dissolved	0.016	N/A	0.004	mg/L	N/A	2016-11-17	
Zirconium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	

Microbiological Parameters

Coliforms, Total	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-11-10	
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-11-10	

Sample ID: 2016-12 (6110782-04) [Water] Sampled: 2016-11-09 15:15

Anions

Chloride	3.07	AO ≤ 250	0.10	mg/L	N/A	2016-11-11	
Nitrate (as N)	0.188	MAC = 10	0.010	mg/L	N/A	2016-11-11	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-11-11	
Sulfate	18.1	AO ≤ 500	1.0	mg/L	N/A	2016-11-11	

General Parameters

Alkalinity, Total (as CaCO3)	99	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Phenolphthalein (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Bicarbonate (as CaCO3)	99	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Carbonate (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-11-10	
Alkalinity, Hydroxide (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-11-10	

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Sample ID: 2016-12 (6110782-04) [Water] Sampled: 2016-11-09 15:15, Continued

General Parameters, Continued

Ammonia, Total (as N)	0.026	N/A	0.020	mg/L	N/A	2016-11-15	
Conductivity (EC)	241	N/A	2	µS/cm	N/A	2016-11-10	
Nitrogen, Total Kjeldahl	0.10	N/A	0.05	mg/L	2016-11-14	2016-11-15	
pH	7.77	6.5-8.5	0.01	pH units	N/A	2016-11-10	HT2
Phosphorus, Total (as P)	0.007	N/A	0.002	mg/L	2016-11-16	2016-11-17	
Phosphorus, Total Dissolved	0.007	N/A	0.002	mg/L	2016-11-16	2016-11-17	
Salinity @25°C	0.1	N/A	0.1	PSU	N/A	2016-11-10	
Solids, Total Dissolved	147	AO ≤ 500	10	mg/L	N/A	2016-11-16	

Calculated Parameters

Hardness, Total (as CaCO3)	103	N/A	0.50	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	0.188	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	0.288	N/A	0.050	mg/L	N/A	N/A	
Nitrogen, Organic	0.074	N/A	0.050	mg/L	N/A	N/A	
Sodium Adsorption Ratio	0.3	N/A	0.1	-	N/A	2016-11-21	

Dissolved Metals

Aluminum, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-11-17	
Antimony, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Arsenic, dissolved	0.0012	N/A	0.0005	mg/L	N/A	2016-11-17	
Barium, dissolved	0.027	N/A	0.005	mg/L	N/A	2016-11-17	
Beryllium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Bismuth, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Boron, dissolved	0.011	N/A	0.004	mg/L	N/A	2016-11-17	
Cadmium, dissolved	< 0.00001	N/A	0.00001	mg/L	N/A	2016-11-17	
Calcium, dissolved	33.9	N/A	0.2	mg/L	N/A	2016-11-17	
Chromium, dissolved	< 0.0005	N/A	0.0005	mg/L	N/A	2016-11-17	
Cobalt, dissolved	0.00050	N/A	0.00005	mg/L	N/A	2016-11-17	
Copper, dissolved	0.0011	N/A	0.0002	mg/L	N/A	2016-11-17	
Iron, dissolved	< 0.010	N/A	0.010	mg/L	N/A	2016-11-17	
Lead, dissolved	0.0003	N/A	0.0001	mg/L	N/A	2016-11-17	
Lithium, dissolved	0.0014	N/A	0.0001	mg/L	N/A	2016-11-17	
Magnesium, dissolved	4.36	N/A	0.01	mg/L	N/A	2016-11-17	
Manganese, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-11-17	
Mercury, dissolved	< 0.00002	N/A	0.00002	mg/L	2016-11-15	2016-11-16	
Molybdenum, dissolved	0.0012	N/A	0.0001	mg/L	N/A	2016-11-17	
Nickel, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-11-17	
Phosphorus, dissolved	< 0.02	N/A	0.02	mg/L	N/A	2016-11-17	
Potassium, dissolved	1.10	N/A	0.02	mg/L	N/A	2016-11-17	
Selenium, dissolved	0.0005	N/A	0.0005	mg/L	N/A	2016-11-17	
Silicon, dissolved	7.4	N/A	0.5	mg/L	N/A	2016-11-17	
Silver, dissolved	< 0.00005	N/A	0.00005	mg/L	N/A	2016-11-17	
Sodium, dissolved	6.16	N/A	0.02	mg/L	N/A	2016-11-17	
Strontium, dissolved	0.166	N/A	0.001	mg/L	N/A	2016-11-17	
Sulfur, dissolved	5	N/A	1	mg/L	N/A	2016-11-17	
Tellurium, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-11-17	

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Sample ID: 2016-12 (6110782-04) [Water] Sampled: 2016-11-09 15:15, Continued

Dissolved Metals, Continued

Thallium, dissolved	< 0.00002	N/A	0.00002	mg/L	N/A	2016-11-17	
Thorium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	
Tin, dissolved	< 0.0002	N/A	0.0002	mg/L	N/A	2016-11-17	
Titanium, dissolved	< 0.005	N/A	0.005	mg/L	N/A	2016-11-17	
Uranium, dissolved	0.00055	N/A	0.00002	mg/L	N/A	2016-11-17	
Vanadium, dissolved	0.001	N/A	0.001	mg/L	N/A	2016-11-17	
Zinc, dissolved	0.048	N/A	0.004	mg/L	N/A	2016-11-17	
Zirconium, dissolved	< 0.0001	N/A	0.0001	mg/L	N/A	2016-11-17	

Microbiological Parameters

Coliforms, Total	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-11-10	
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-11-10	

Sample / Analysis Qualifiers:

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

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

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

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

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Anions, Batch B6K0885									
Blank (B6K0885-BLK1)					Prepared: 2016-11-14, Analyzed: 2016-11-14				
Chloride	< 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							
Blank (B6K0885-BLK2)					Prepared: 2016-11-15, Analyzed: 2016-11-15				
Chloride	< 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							
LCS (B6K0885-BS1)					Prepared: 2016-11-14, Analyzed: 2016-11-14				
Chloride	15.7	0.10 mg/L	16.0		98	90-110			
Nitrate (as N)	3.98	0.010 mg/L	4.00		99	93-108			
Nitrite (as N)	1.82	0.010 mg/L	2.00		91	83-110			
Sulfate	15.3	1.0 mg/L	16.0		96	91-109			
LCS (B6K0885-BS2)					Prepared: 2016-11-15, Analyzed: 2016-11-15				
Chloride	15.7	0.10 mg/L	16.0		98	90-110			
Nitrate (as N)	4.01	0.010 mg/L	4.00		100	93-108			
Nitrite (as N)	1.84	0.010 mg/L	2.00		92	83-110			
Sulfate	15.3	1.0 mg/L	16.0		96	91-109			
Dissolved Metals, Batch B6K0954									
Blank (B6K0954-BLK1)					Prepared: 2016-11-15, Analyzed: 2016-11-16				
Mercury, dissolved	< 0.00002	0.00002 mg/L							
Duplicate (B6K0954-DUP1)					Prepared: 2016-11-15, Analyzed: 2016-11-16				
Mercury, dissolved	< 0.00002	0.00002 mg/L		< 0.00002				20	

APPENDIX 1: QUALITY CONTROL DATA

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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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Dissolved Metals, Batch B6K0954, Continued

Matrix Spike (B6K0954-MS1)		Source: 6110782-02		Prepared: 2016-11-15, Analyzed: 2016-11-16					
Mercury, dissolved	0.00023	0.00002 mg/L	0.000250	< 0.00002	94	70-130			
Reference (B6K0954-SRM1)				Prepared: 2016-11-15, Analyzed: 2016-11-16					
Mercury, dissolved	0.00489	0.00002 mg/L	0.00486		101	50-150			

Dissolved Metals, Batch B6K1094

Blank (B6K1094-BLK1)		Prepared: 2016-11-17, Analyzed: 2016-11-17							
Aluminum, dissolved	< 0.005	0.005 mg/L							
Antimony, dissolved	< 0.0001	0.0001 mg/L							
Arsenic, dissolved	< 0.0005	0.0005 mg/L							
Barium, dissolved	< 0.005	0.005 mg/L							
Beryllium, dissolved	< 0.0001	0.0001 mg/L							
Bismuth, dissolved	< 0.0001	0.0001 mg/L							
Boron, dissolved	< 0.004	0.004 mg/L							
Cadmium, dissolved	< 0.00001	0.00001 mg/L							
Calcium, dissolved	< 0.2	0.2 mg/L							
Chromium, dissolved	< 0.0005	0.0005 mg/L							
Cobalt, dissolved	< 0.00005	0.00005 mg/L							
Copper, dissolved	< 0.0002	0.0002 mg/L							
Iron, dissolved	< 0.010	0.010 mg/L							
Lead, dissolved	< 0.0001	0.0001 mg/L							
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 (B6K1094-DUP1)		Source: 6110782-01		Prepared: 2016-11-17, Analyzed: 2016-11-17					
Aluminum, dissolved	< 0.005	0.005 mg/L	< 0.005						11
Antimony, dissolved	< 0.0001	0.0001 mg/L	< 0.0001						44
Arsenic, dissolved	0.0005	0.0005 mg/L	< 0.0005						8
Barium, dissolved	0.049	0.005 mg/L	0.049			< 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	0.017	0.004 mg/L	0.017						13
Cadmium, dissolved	0.00002	0.00001 mg/L	< 0.00001						27
Calcium, dissolved	58.8	0.2 mg/L	58.8			< 1			8
Chromium, dissolved	< 0.0005	0.0005 mg/L	< 0.0005						14

APPENDIX 1: QUALITY CONTROL DATA

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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Dissolved Metals, Batch B6K1094, Continued									
Duplicate (B6K1094-DUP1), Continued		Source: 6110782-01		Prepared: 2016-11-17, Analyzed: 2016-11-17					
Cobalt, dissolved	< 0.00005	0.00005 mg/L		< 0.00005				10	
Copper, dissolved	0.0033	0.0002 mg/L		0.0031			5	28	
Iron, dissolved	< 0.010	0.010 mg/L		< 0.010				14	
Lead, dissolved	0.0003	0.0001 mg/L		0.0001				26	
Lithium, dissolved	0.0021	0.0001 mg/L		0.0021			< 1	14	
Magnesium, dissolved	14.2	0.01 mg/L		14.0			1	6	
Manganese, dissolved	0.0003	0.0002 mg/L		0.0002				9	
Molybdenum, dissolved	0.0036	0.0001 mg/L		0.0035			3	19	
Nickel, dissolved	< 0.0002	0.0002 mg/L		< 0.0002				21	
Phosphorus, dissolved	< 0.02	0.02 mg/L		< 0.02				14	
Potassium, dissolved	1.36	0.02 mg/L		1.34			2	8	
Selenium, dissolved	< 0.0005	0.0005 mg/L		< 0.0005				36	
Silicon, dissolved	8.1	0.5 mg/L		8.0			2	12	
Silver, dissolved	< 0.00005	0.00005 mg/L		< 0.00005				20	
Sodium, dissolved	9.63	0.02 mg/L		9.54			1	6	
Strontium, dissolved	0.407	0.001 mg/L		0.409			< 1	6	
Sulfur, dissolved	11	1 mg/L		11			7	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	0.00083	0.00002 mg/L		0.00082			1	14	
Vanadium, dissolved	< 0.001	0.001 mg/L		< 0.001				20	
Zinc, dissolved	0.018	0.004 mg/L		0.019				11	
Zirconium, dissolved	< 0.0001	0.0001 mg/L		< 0.0001				36	
Matrix Spike (B6K1094-MS1)		Source: 6110782-02		Prepared: 2016-11-17, Analyzed: 2016-11-17					
Antimony, dissolved	0.406	0.0001 mg/L	0.400	< 0.0001	102	76-114			
Arsenic, dissolved	0.204	0.0005 mg/L	0.200	< 0.0005	102	81-115			
Barium, dissolved	0.995	0.005 mg/L	1.00	0.005	99	80-113			
Beryllium, dissolved	0.0917	0.0001 mg/L	0.100	< 0.0001	92	69-109			
Cadmium, dissolved	0.0978	0.00001 mg/L	0.100	< 0.00001	98	83-110			
Chromium, dissolved	0.395	0.0005 mg/L	0.400	< 0.0005	99	85-115			
Cobalt, dissolved	0.393	0.00005 mg/L	0.400	< 0.00005	98	86-114			
Copper, dissolved	0.407	0.0002 mg/L	0.400	0.0073	100	82-119			
Iron, dissolved	2.04	0.010 mg/L	2.00	0.016	101	80-116			
Lead, dissolved	0.184	0.0001 mg/L	0.200	0.0002	92	83-112			
Manganese, dissolved	0.409	0.0002 mg/L	0.400	0.0111	99	62-131			
Nickel, dissolved	0.388	0.0002 mg/L	0.400	0.0004	97	81-115			
Selenium, dissolved	0.0886	0.0005 mg/L	0.100	< 0.0005	89	79-115			
Silver, dissolved	0.101	0.00005 mg/L	0.100	< 0.00005	101	69-121			
Thallium, dissolved	0.0917	0.00002 mg/L	0.100	< 0.00002	92	84-115			
Vanadium, dissolved	0.371	0.001 mg/L	0.400	< 0.001	93	83-113			
Zinc, dissolved	1.04	0.004 mg/L	1.00	0.009	103	82-115			
Reference (B6K1094-SRM1)		Prepared: 2016-11-17, Analyzed: 2016-11-17							
Aluminum, dissolved	0.244	0.005 mg/L	0.233		105	58-142			
Antimony, dissolved	0.0449	0.0001 mg/L	0.0430		104	75-125			
Arsenic, dissolved	0.459	0.0005 mg/L	0.438		105	81-119			
Barium, dissolved	3.31	0.005 mg/L	3.35		99	83-117			
Beryllium, dissolved	0.213	0.0001 mg/L	0.213		100	80-120			
Boron, dissolved	1.60	0.004 mg/L	1.74		92	74-117			
Cadmium, dissolved	0.220	0.00001 mg/L	0.224		98	83-117			
Calcium, dissolved	7.6	0.2 mg/L	7.69		99	76-124			
Chromium, dissolved	0.458	0.0005 mg/L	0.437		105	81-119			
Cobalt, dissolved	0.133	0.00005 mg/L	0.128		104	76-124			

APPENDIX 1: QUALITY CONTROL DATA

REPORTED TO PROJECT Associated Environmental Consultants Inc. (Vernon)
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WORK ORDER REPORTED 6110782
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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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Dissolved Metals, Batch B6K1094, Continued

Reference (B6K1094-SRM1), Continued

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

Copper, dissolved	0.869	0.0002 mg/L	0.844		103	84-116			
Iron, dissolved	1.33	0.010 mg/L	1.29		103	74-126			
Lead, dissolved	0.105	0.0001 mg/L	0.112		94	72-128			
Lithium, dissolved	0.0984	0.0001 mg/L	0.104		95	60-140			
Magnesium, dissolved	6.89	0.01 mg/L	6.92		100	81-119			
Manganese, dissolved	0.358	0.0002 mg/L	0.345		104	84-116			
Molybdenum, dissolved	0.417	0.0001 mg/L	0.426		98	83-117			
Nickel, dissolved	0.870	0.0002 mg/L	0.840		104	74-126			
Phosphorus, dissolved	0.53	0.02 mg/L	0.495		107	68-132			
Potassium, dissolved	3.26	0.02 mg/L	3.19		102	74-126			
Selenium, dissolved	0.0313	0.0005 mg/L	0.0331		95	70-130			
Sodium, dissolved	19.3	0.02 mg/L	19.1		101	72-128			
Strontium, dissolved	0.933	0.001 mg/L	0.916		102	84-113			
Thallium, dissolved	0.0365	0.00002 mg/L	0.0393		93	57-143			
Uranium, dissolved	0.239	0.00002 mg/L	0.266		90	85-115			
Vanadium, dissolved	0.888	0.001 mg/L	0.869		102	87-113			
Zinc, dissolved	0.911	0.004 mg/L	0.881		103	72-128			

General Parameters, Batch B6K0798

Blank (B6K0798-BLK1)

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

Alkalinity, Total (as CaCO3)	< 1	2 mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1	2 mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1	2 mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1	2 mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1	2 mg/L							
Conductivity (EC)	< 1	2 µS/cm							
Salinity @25°C	< 0.1	0.1 PSU							

Blank (B6K0798-BLK2)

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

Alkalinity, Total (as CaCO3)	< 1	2 mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1	2 mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1	2 mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1	2 mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1	2 mg/L							
Conductivity (EC)	< 1	2 µS/cm							
Salinity @25°C	< 0.1	0.1 PSU							

Blank (B6K0798-BLK3)

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

Alkalinity, Total (as CaCO3)	< 1	2 mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1	2 mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1	2 mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1	2 mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1	2 mg/L							
Conductivity (EC)	< 1	2 µS/cm							

LCS (B6K0798-BS1)

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

Alkalinity, Total (as CaCO3)	99	2 mg/L	100		99	96-108			
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LCS (B6K0798-BS2)

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

Conductivity (EC)	1400	2 µS/cm	1410		99	95-104			
Salinity @25°C	0.7	0.1 PSU	0.747		99	80-120			

LCS (B6K0798-BS3)

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

Alkalinity, Total (as CaCO3)	102	2 mg/L	100		102	96-108			
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APPENDIX 1: QUALITY CONTROL DATA

REPORTED TO PROJECT Associated Environmental Consultants Inc. (Vernon)
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WORK ORDER REPORTED 6110782
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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
General Parameters, Batch B6K0798, Continued									
LCS (B6K0798-BS4)			Prepared: 2016-11-10, Analyzed: 2016-11-10						
Conductivity (EC)	1400	2 µS/cm	1410		99	95-104			
Salinity @25°C	0.7	0.1 PSU	0.747		99	80-120			
LCS (B6K0798-BS5)			Prepared: 2016-11-11, Analyzed: 2016-11-11						
Alkalinity, Total (as CaCO3)	102	2 mg/L	100		102	96-108			
LCS (B6K0798-BS6)			Prepared: 2016-11-10, Analyzed: 2016-11-11						
Conductivity (EC)	1410	2 µS/cm	1410		100	95-104			
Salinity @25°C	0.7	0.1 PSU	0.747		100	80-120			
Duplicate (B6K0798-DUP2)			Source: 6110782-04		Prepared: 2016-11-10, Analyzed: 2016-11-10				
Alkalinity, Total (as CaCO3)	101	2 mg/L			99		2	10	
Alkalinity, Phenolphthalein (as CaCO3)	< 1	2 mg/L			< 1			10	
Alkalinity, Bicarbonate (as CaCO3)	101	2 mg/L			99		2	10	
Alkalinity, Carbonate (as CaCO3)	< 1	2 mg/L			< 1			10	
Alkalinity, Hydroxide (as CaCO3)	< 1	2 mg/L			< 1			10	
Conductivity (EC)	239	2 µS/cm			241		< 1	5	
pH	7.73	0.01 pH units			7.77		< 1	5	
Salinity @25°C	0.1	0.1 PSU			0.1			5	
Reference (B6K0798-SRM1)			Prepared: 2016-11-10, Analyzed: 2016-11-10						
pH	6.95	0.01 pH units	7.00		99	98-102			
Reference (B6K0798-SRM2)			Prepared: 2016-11-10, Analyzed: 2016-11-10						
pH	6.96	0.01 pH units	7.00		99	98-102			
Reference (B6K0798-SRM3)			Prepared: 2016-11-11, Analyzed: 2016-11-11						
pH	6.96	0.01 pH units	7.00		99	98-102			
General Parameters, Batch B6K0802									
Blank (B6K0802-BLK1)			Prepared: 2016-11-15, Analyzed: 2016-11-15						
Ammonia, Total (as N)	< 0.020	0.020 mg/L							
Blank (B6K0802-BLK2)			Prepared: 2016-11-15, Analyzed: 2016-11-15						
Ammonia, Total (as N)	< 0.020	0.020 mg/L							
LCS (B6K0802-BS1)			Prepared: 2016-11-15, Analyzed: 2016-11-15						
Ammonia, Total (as N)	1.03	0.020 mg/L	1.00		103	86-111			
LCS (B6K0802-BS2)			Prepared: 2016-11-15, Analyzed: 2016-11-15						
Ammonia, Total (as N)	1.05	0.020 mg/L	1.00		105	86-111			
General Parameters, Batch B6K0894									
Blank (B6K0894-BLK1)			Prepared: 2016-11-14, Analyzed: 2016-11-15						
Nitrogen, Total Kjeldahl	< 0.05	0.05 mg/L							
Blank (B6K0894-BLK2)			Prepared: 2016-11-14, Analyzed: 2016-11-15						
Nitrogen, Total Kjeldahl	< 0.05	0.05 mg/L							
LCS (B6K0894-BS1)			Prepared: 2016-11-14, Analyzed: 2016-11-15						
Nitrogen, Total Kjeldahl	10.8	0.05 mg/L	10.0		108	80-120			
LCS (B6K0894-BS2)			Prepared: 2016-11-14, Analyzed: 2016-11-15						
Nitrogen, Total Kjeldahl	10.4	0.05 mg/L	10.0		104	80-120			

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WORK ORDER REPORTED 6110782
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Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
General Parameters, Batch B6K1005									
Blank (B6K1005-BLK1)			Prepared: 2016-11-16, Analyzed: 2016-11-17						
Phosphorus, Total (as P)	< 0.002	0.002 mg/L							
Phosphorus, Total Dissolved	< 0.002	0.002 mg/L							
Blank (B6K1005-BLK2)			Prepared: 2016-11-16, Analyzed: 2016-11-17						
Phosphorus, Total (as P)	< 0.002	0.002 mg/L							
LCS (B6K1005-BS1)			Prepared: 2016-11-16, Analyzed: 2016-11-17						
Phosphorus, Total (as P)	0.097	0.002 mg/L	0.100		97	75-112			
Phosphorus, Total Dissolved	0.102	0.002 mg/L	0.100		102	80-120			
LCS (B6K1005-BS2)			Prepared: 2016-11-16, Analyzed: 2016-11-17						
Phosphorus, Total (as P)	0.099	0.002 mg/L	0.100		99	75-112			
Duplicate (B6K1005-DUP1)			Source: 6110782-01		Prepared: 2016-11-16, Analyzed: 2016-11-17				
Phosphorus, Total (as P)	0.008	0.002 mg/L		0.009					30
Phosphorus, Total Dissolved	0.006	0.002 mg/L		0.006					20
Matrix Spike (B6K1005-MS1)			Source: 6110782-01		Prepared: 2016-11-16, Analyzed: 2016-11-17				
Phosphorus, Total Dissolved	0.498	0.002 mg/L	0.500	0.006	99	70-130			
General Parameters, Batch B6K1066									
Blank (B6K1066-BLK1)			Prepared: 2016-11-16, Analyzed: 2016-11-16						
Solids, Total Dissolved	< 10	10 mg/L							
LCS (B6K1066-BS1)			Prepared: 2016-11-16, Analyzed: 2016-11-16						
Solids, Total Dissolved	241	10 mg/L	240		100	80-120			
Duplicate (B6K1066-DUP1)			Source: 6110782-01		Prepared: 2016-11-16, Analyzed: 2016-11-16				
Solids, Total Dissolved	254	10 mg/L		252			< 1		16
Microbiological Parameters, Batch B6K0712									
Blank (B6K0712-BLK1)			Prepared: 2016-11-10, Analyzed: 2016-11-10						
Coliforms, Total	< 1	1 CFU/100 mL							
E. coli	< 1	1 CFU/100 mL							
Blank (B6K0712-BLK2)			Prepared: 2016-11-10, Analyzed: 2016-11-10						
Coliforms, Total	< 1	1 CFU/100 mL							
E. coli	< 1	1 CFU/100 mL							
Duplicate (B6K0712-DUP1)			Source: 6110782-02		Prepared: 2016-11-10, Analyzed: 2016-11-10				
Coliforms, Total	< 1	1 CFU/100 mL		< 1				68	RS2
Duplicate (B6K0712-DUP2)			Source: 6110782-03		Prepared: 2016-11-10, Analyzed: 2016-11-10				
E. coli	< 1	1 CFU/100 mL		< 1				79	RS2

QC Qualifiers:

RS2 Reported Detection Limits (RDL) for this sample have been raised due to limited sample volume.