

CERTIFICATE OF ANALYSIS

REPORTED TO Cherry Ridge Management
158 North Fork Road
Cherryville, BC V0E 2G3

ATTENTION Melanie Staker

PO NUMBER

PROJECT Creek Monitoring

PROJECT INFO

WORK ORDER 7111165

RECEIVED / TEMP 2017-11-15 09:15 / 3°C

REPORTED 2017-11-22 13:07

COC NUMBER 40837.5581

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO 17025:2005 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

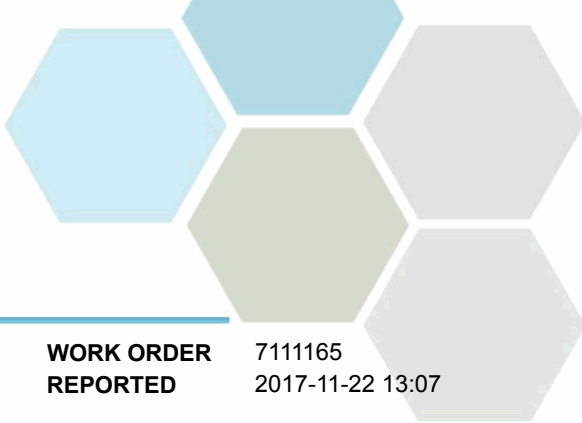
If you have any questions or concerns, please contact me at sgulenchyn@caro.ca

Authorized By:

Sara Gulenchyn, B.Sc, P.Chem.
Client Service Manager

1-888-311-8846 | www.caro.ca

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7



TEST RESULTS

REPORTED TO PROJECT Cherry Ridge Management Creek Monitoring

WORK ORDER REPORTED 7111165
2017-11-22 13:07

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
North Fork Cherry Creek (7111165-01) Matrix: Water Sampled: 2017-11-14 11:55						F1, FILT, PRES

Anions

Chloride	0.20	AO ≤ 250	0.10	mg/L	2017-11-17	
Nitrate (as N)	0.017	MAC = 10	0.010	mg/L	2017-11-17	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2017-11-17	
Sulfate	13.1	AO ≤ 500	1.0	mg/L	2017-11-17	

General Parameters

Conductivity (EC)	210	N/A	2.0	µS/cm	2017-11-15	
Nitrogen, Total Kjeldahl	< 0.050	N/A	0.050	mg/L	2017-11-17	
pH	7.50	7.0-10.5	0.10	pH units	2017-11-15	HT2
Phosphorus, Total (as P)	< 0.0020	N/A	0.0020	mg/L	2017-11-16	
Phosphorus, Total Dissolved	< 0.0020	N/A	0.0020	mg/L	2017-11-16	
Turbidity	0.12	OG < 1	0.10	NTU	2017-11-14	

Calculated Parameters

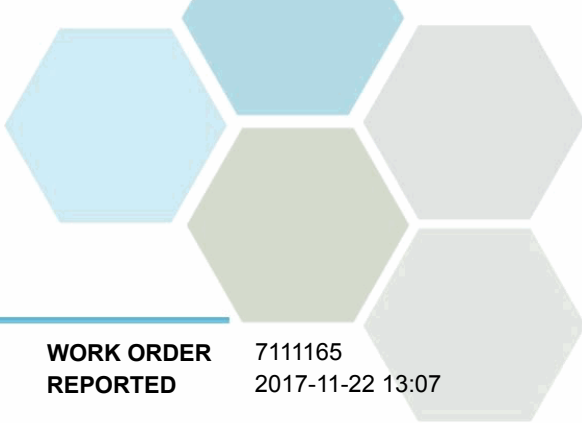
Hardness, Total (as CaCO3)	97.3	None Required	0.100	mg/L	N/A	
Nitrate+Nitrite (as N)	0.0171	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	< 0.0500	N/A	0.0500	mg/L	N/A	

Dissolved Metals

Aluminum, dissolved	3.2	N/A	1.0	µg/L	2017-11-22	
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Total Metals

Aluminum, total	12.4	OG < 100	2.0	µg/L	2017-11-21	
Antimony, total	< 0.050	MAC = 6	0.050	µg/L	2017-11-21	
Arsenic, total	0.207	MAC = 10	0.050	µg/L	2017-11-21	
Barium, total	18.9	MAC = 1000	0.10	µg/L	2017-11-21	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Boron, total	5.3	MAC = 5000	2.0	µg/L	2017-11-21	
Cadmium, total	0.0105	MAC = 5	0.0020	µg/L	2017-11-21	
Calcium, total	32400	N/A	40	µg/L	2017-11-21	
Chromium, total	1.17	MAC = 50	0.10	µg/L	2017-11-21	
Cobalt, total	< 0.0050	N/A	0.0050	µg/L	2017-11-21	
Copper, total	0.26	AO ≤ 1000	0.20	µg/L	2017-11-21	
Iron, total	6.1	AO ≤ 300	2.0	µg/L	2017-11-21	
Lead, total	< 0.050	MAC = 10	0.050	µg/L	2017-11-21	
Lithium, total	1.18	N/A	0.050	µg/L	2017-11-21	
Magnesium, total	3980	N/A	5.0	µg/L	2017-11-21	
Manganese, total	0.756	AO ≤ 50	0.050	µg/L	2017-11-21	
Mercury, total	< 0.020	MAC = 1	0.020	µg/L	2017-11-21	
Molybdenum, total	2.23	N/A	0.010	µg/L	2017-11-21	
Nickel, total	0.185	N/A	0.040	µg/L	2017-11-21	
Phosphorus, total	< 10	N/A	10	µg/L	2017-11-21	



TEST RESULTS

REPORTED TO PROJECT Cherry Ridge Management Creek Monitoring

WORK ORDER REPORTED 7111165
2017-11-22 13:07

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
North Fork Cherry Creek (7111165-01) Matrix: Water Sampled: 2017-11-14 11:55, Continued						F1, FILT, PRES

Total Metals, Continued

Potassium, total	1300	N/A	10	µg/L	2017-11-21	
Selenium, total	1.91	MAC = 50	0.10	µg/L	2017-11-21	
Silicon, total	4390	N/A	100	µg/L	2017-11-21	
Silver, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Sodium, total	1650	AO ≤ 200000	20	µg/L	2017-11-21	
Strontium, total	186	N/A	0.10	µg/L	2017-11-21	
Sulfur, total	4100	N/A	1000	µg/L	2017-11-21	
Tellurium, total	< 0.050	N/A	0.050	µg/L	2017-11-21	
Thallium, total	< 0.0040	N/A	0.0040	µg/L	2017-11-21	
Thorium, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Tin, total	< 0.050	N/A	0.050	µg/L	2017-11-21	
Titanium, total	< 0.20	N/A	0.20	µg/L	2017-11-21	
Tungsten, total	< 0.20	N/A	0.20	µg/L	2017-11-21	
Uranium, total	0.739	MAC = 20	0.0010	µg/L	2017-11-21	
Vanadium, total	0.40	N/A	0.20	µg/L	2017-11-21	
Zinc, total	< 1.0	AO ≤ 5000	1.0	µg/L	2017-11-21	
Zirconium, total	< 0.020	N/A	0.020	µg/L	2017-11-21	

Microbiological Parameters

E. coli	1	MAC = 0	1	CFU/100 mL	2017-11-15	
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South Fork Cherry Creek (7111165-02) | Matrix: Water | Sampled: 2017-11-14 11:10

F1, FILT, PRES

Anions

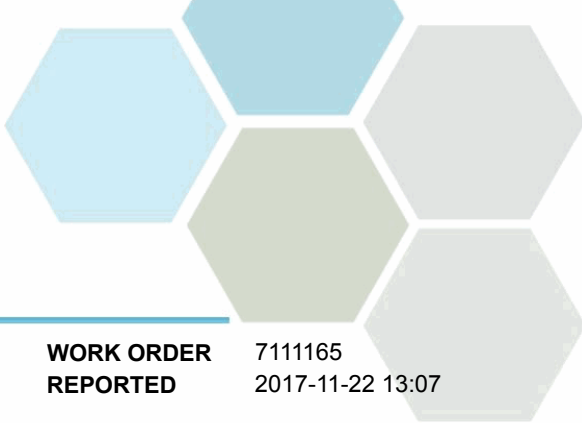
Chloride	1.49	AO ≤ 250	0.10	mg/L	2017-11-17	
Nitrate (as N)	0.064	MAC = 10	0.010	mg/L	2017-11-17	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2017-11-17	
Sulfate	20.7	AO ≤ 500	1.0	mg/L	2017-11-17	

General Parameters

Conductivity (EC)	261	N/A	2.0	µS/cm	2017-11-15	
Nitrogen, Total Kjeldahl	0.095	N/A	0.050	mg/L	2017-11-17	
pH	8.00	7.0-10.5	0.10	pH units	2017-11-15	HT2
Phosphorus, Total (as P)	< 0.0020	N/A	0.0020	mg/L	2017-11-16	
Phosphorus, Total Dissolved	< 0.0020	N/A	0.0020	mg/L	2017-11-16	
Turbidity	0.36	OG < 1	0.10	NTU	2017-11-14	

Calculated Parameters

Hardness, Total (as CaCO3)	126	None Required	0.100	mg/L	N/A	
Nitrate+Nitrite (as N)	0.0638	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	0.159	N/A	0.0500	mg/L	N/A	



TEST RESULTS

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2017-11-22 13:07

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
South Fork Cherry Creek (7111165-02) Matrix: Water Sampled: 2017-11-14 11:10, Continued						F1, FILT, PRES

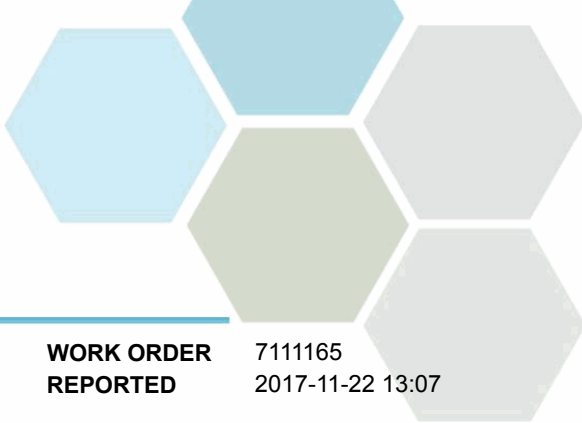
Dissolved Metals

Aluminum, dissolved	1.2	N/A	1.0	µg/L	2017-11-22
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Total Metals

Aluminum, total	6.0	OG < 100	2.0	µg/L	2017-11-21
Antimony, total	0.126	MAC = 6	0.050	µg/L	2017-11-21
Arsenic, total	0.457	MAC = 10	0.050	µg/L	2017-11-21
Barium, total	19.1	MAC = 1000	0.10	µg/L	2017-11-21
Beryllium, total	< 0.010	N/A	0.010	µg/L	2017-11-21
Bismuth, total	< 0.010	N/A	0.010	µg/L	2017-11-21
Boron, total	5.0	MAC = 5000	2.0	µg/L	2017-11-21
Cadmium, total	0.0154	MAC = 5	0.0020	µg/L	2017-11-21
Calcium, total	41100	N/A	40	µg/L	2017-11-21
Chromium, total	0.83	MAC = 50	0.10	µg/L	2017-11-21
Cobalt, total	0.0090	N/A	0.0050	µg/L	2017-11-21
Copper, total	0.44	AO ≤ 1000	0.20	µg/L	2017-11-21
Iron, total	10.2	AO ≤ 300	2.0	µg/L	2017-11-21
Lead, total	< 0.050	MAC = 10	0.050	µg/L	2017-11-21
Lithium, total	1.16	N/A	0.050	µg/L	2017-11-21
Magnesium, total	5710	N/A	5.0	µg/L	2017-11-21
Manganese, total	0.889	AO ≤ 50	0.050	µg/L	2017-11-21
Mercury, total	< 0.020	MAC = 1	0.020	µg/L	2017-11-21
Molybdenum, total	1.64	N/A	0.010	µg/L	2017-11-21
Nickel, total	0.152	N/A	0.040	µg/L	2017-11-21
Phosphorus, total	< 10	N/A	10	µg/L	2017-11-21
Potassium, total	711	N/A	10	µg/L	2017-11-21
Selenium, total	1.85	MAC = 50	0.10	µg/L	2017-11-21
Silicon, total	3810	N/A	100	µg/L	2017-11-21
Silver, total	< 0.010	N/A	0.010	µg/L	2017-11-21
Sodium, total	2240	AO ≤ 200000	20	µg/L	2017-11-21
Strontium, total	256	N/A	0.10	µg/L	2017-11-21
Sulfur, total	6100	N/A	1000	µg/L	2017-11-21
Tellurium, total	< 0.050	N/A	0.050	µg/L	2017-11-21
Thallium, total	< 0.0040	N/A	0.0040	µg/L	2017-11-21
Thorium, total	< 0.010	N/A	0.010	µg/L	2017-11-21
Tin, total	< 0.050	N/A	0.050	µg/L	2017-11-21
Titanium, total	0.28	N/A	0.20	µg/L	2017-11-21
Tungsten, total	< 0.20	N/A	0.20	µg/L	2017-11-21
Uranium, total	0.660	MAC = 20	0.0010	µg/L	2017-11-21
Vanadium, total	0.30	N/A	0.20	µg/L	2017-11-21
Zinc, total	2.4	AO ≤ 5000	1.0	µg/L	2017-11-21
Zirconium, total	< 0.020	N/A	0.020	µg/L	2017-11-21

Microbiological Parameters



TEST RESULTS

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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
South Fork Cherry Creek (7111165-02) Matrix: Water Sampled: 2017-11-14 11:10, Continued						F1, FILT, PRES

Microbiological Parameters, Continued

E. coli	3	MAC = 0	1	CFU/100 mL	2017-11-15	
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Cherry Creek at Hall (7111165-03) Matrix: Water Sampled: 2017-11-14 11:35						F1, FILT, PRES
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Anions

Chloride	2.18	AO ≤ 250	0.10	mg/L	2017-11-17	
Nitrate (as N)	0.010	MAC = 10	0.010	mg/L	2017-11-17	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2017-11-17	
Sulfate	19.0	AO ≤ 500	1.0	mg/L	2017-11-17	

General Parameters

Conductivity (EC)	282	N/A	2.0	µS/cm	2017-11-15	
Nitrogen, Total Kjeldahl	< 0.050	N/A	0.050	mg/L	2017-11-17	
pH	8.20	7.0-10.5	0.10	pH units	2017-11-15	HT2
Phosphorus, Total (as P)	< 0.0020	N/A	0.0020	mg/L	2017-11-16	
Phosphorus, Total Dissolved	< 0.0020	N/A	0.0020	mg/L	2017-11-16	
Turbidity	0.70	OG < 1	0.10	NTU	2017-11-14	

Calculated Parameters

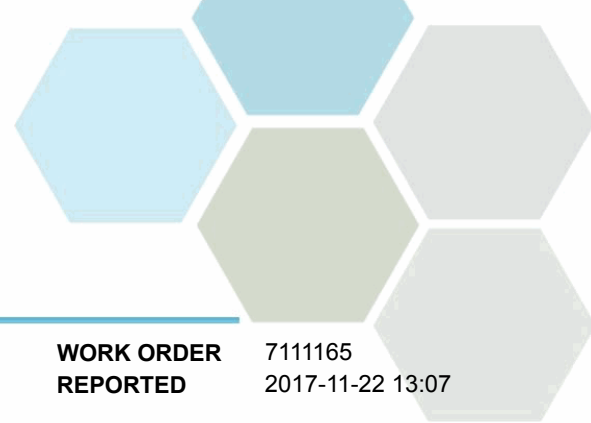
Hardness, Total (as CaCO3)	135	None Required	0.100	mg/L	N/A	
Nitrate+Nitrite (as N)	0.0103	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	< 0.0500	N/A	0.0500	mg/L	N/A	

Dissolved Metals

Aluminum, dissolved	1.1	N/A	1.0	µg/L	2017-11-22	
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Total Metals

Aluminum, total	12.4	OG < 100	2.0	µg/L	2017-11-21	
Antimony, total	0.089	MAC = 6	0.050	µg/L	2017-11-21	
Arsenic, total	0.362	MAC = 10	0.050	µg/L	2017-11-21	
Barium, total	20.3	MAC = 1000	0.10	µg/L	2017-11-21	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Boron, total	4.8	MAC = 5000	2.0	µg/L	2017-11-21	
Cadmium, total	0.0100	MAC = 5	0.0020	µg/L	2017-11-21	
Calcium, total	41900	N/A	40	µg/L	2017-11-21	
Chromium, total	1.21	MAC = 50	0.10	µg/L	2017-11-21	
Cobalt, total	0.0160	N/A	0.0050	µg/L	2017-11-21	
Copper, total	0.28	AO ≤ 1000	0.20	µg/L	2017-11-21	
Iron, total	24.2	AO ≤ 300	2.0	µg/L	2017-11-21	
Lead, total	< 0.050	MAC = 10	0.050	µg/L	2017-11-21	
Lithium, total	1.44	N/A	0.050	µg/L	2017-11-21	



TEST RESULTS

REPORTED TO PROJECT Cherry Ridge Management Creek Monitoring

WORK ORDER REPORTED 7111165
2017-11-22 13:07

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Cherry Creek at Hall (7111165-03) Matrix: Water Sampled: 2017-11-14 11:35, Continued						F1, FILT, PRES

Total Metals, Continued

Magnesium, total	7300	N/A	5.0	µg/L	2017-11-21	
Manganese, total	1.60	AO ≤ 50	0.050	µg/L	2017-11-21	
Mercury, total	< 0.020	MAC = 1	0.020	µg/L	2017-11-21	
Molybdenum, total	1.85	N/A	0.010	µg/L	2017-11-21	
Nickel, total	0.153	N/A	0.040	µg/L	2017-11-21	
Phosphorus, total	< 10	N/A	10	µg/L	2017-11-21	
Potassium, total	1030	N/A	10	µg/L	2017-11-21	
Selenium, total	1.86	MAC = 50	0.10	µg/L	2017-11-21	
Silicon, total	4180	N/A	100	µg/L	2017-11-21	
Silver, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Sodium, total	2850	AO ≤ 200000	20	µg/L	2017-11-21	
Strontium, total	262	N/A	0.10	µg/L	2017-11-21	
Sulfur, total	5900	N/A	1000	µg/L	2017-11-21	
Tellurium, total	< 0.050	N/A	0.050	µg/L	2017-11-21	
Thallium, total	< 0.0040	N/A	0.0040	µg/L	2017-11-21	
Thorium, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Tin, total	< 0.050	N/A	0.050	µg/L	2017-11-21	
Titanium, total	0.76	N/A	0.20	µg/L	2017-11-21	
Tungsten, total	< 0.20	N/A	0.20	µg/L	2017-11-21	
Uranium, total	0.869	MAC = 20	0.0010	µg/L	2017-11-21	
Vanadium, total	0.42	N/A	0.20	µg/L	2017-11-21	
Zinc, total	< 1.0	AO ≤ 5000	1.0	µg/L	2017-11-21	
Zirconium, total	< 0.020	N/A	0.020	µg/L	2017-11-21	

Microbiological Parameters

E. coli	3	MAC = 0	1	CFU/100 mL	2017-11-15	
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Shuswap River Picnic Site (7111165-04) | Matrix: Water | Sampled: 2017-11-14 10:40

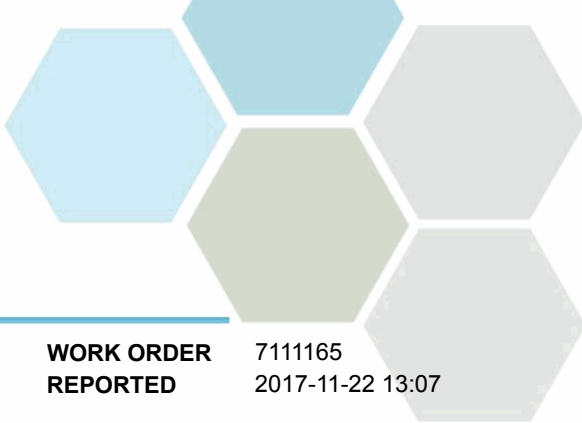
F1, FILT, PRES

Anions

Chloride	0.39	AO ≤ 250	0.10	mg/L	2017-11-17	
Nitrate (as N)	0.035	MAC = 10	0.010	mg/L	2017-11-17	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2017-11-17	
Sulfate	6.5	AO ≤ 500	1.0	mg/L	2017-11-17	

General Parameters

Conductivity (EC)	114	N/A	2.0	µS/cm	2017-11-15	
Nitrogen, Total Kjeldahl	< 0.050	N/A	0.050	mg/L	2017-11-17	
pH	7.89	7.0-10.5	0.10	pH units	2017-11-15	HT2
Phosphorus, Total (as P)	0.0075	N/A	0.0020	mg/L	2017-11-16	
Phosphorus, Total Dissolved	< 0.0020	N/A	0.0020	mg/L	2017-11-16	
Turbidity	0.30	OG < 1	0.10	NTU	2017-11-14	



TEST RESULTS

REPORTED TO PROJECT Cherry Ridge Management
Creek Monitoring

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2017-11-22 13:07

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Shuswap River Picnic Site (7111165-04) Matrix: Water Sampled: 2017-11-14 10:40, Continued						F1, FILT, PRES

Calculated Parameters

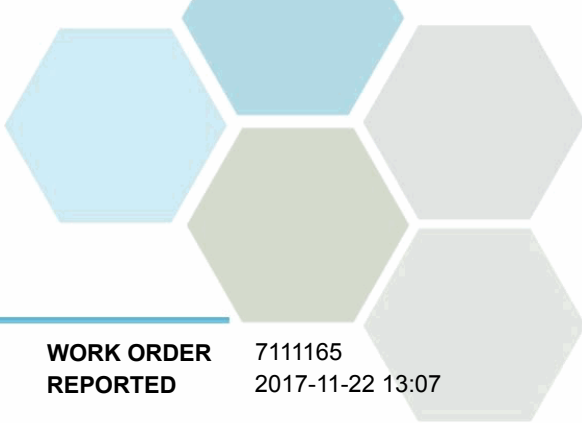
Hardness, Total (as CaCO3)	50.0	None Required	0.100	mg/L	N/A	
Nitrate+Nitrite (as N)	0.0352	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	< 0.0500	N/A	0.0500	mg/L	N/A	

Dissolved Metals

Aluminum, dissolved	6.4	N/A	1.0	µg/L	2017-11-22	
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Total Metals

Aluminum, total	22.3	OG < 100	2.0	µg/L	2017-11-21	
Antimony, total	0.054	MAC = 6	0.050	µg/L	2017-11-21	
Arsenic, total	0.159	MAC = 10	0.050	µg/L	2017-11-21	
Barium, total	9.40	MAC = 1000	0.10	µg/L	2017-11-21	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Boron, total	3.8	MAC = 5000	2.0	µg/L	2017-11-21	
Cadmium, total	0.0054	MAC = 5	0.0020	µg/L	2017-11-21	
Calcium, total	16600	N/A	40	µg/L	2017-11-21	
Chromium, total	0.65	MAC = 50	0.10	µg/L	2017-11-21	
Cobalt, total	0.0091	N/A	0.0050	µg/L	2017-11-21	
Copper, total	0.34	AO ≤ 1000	0.20	µg/L	2017-11-21	
Iron, total	21.3	AO ≤ 300	2.0	µg/L	2017-11-21	
Lead, total	< 0.050	MAC = 10	0.050	µg/L	2017-11-21	
Lithium, total	0.597	N/A	0.050	µg/L	2017-11-21	
Magnesium, total	2090	N/A	5.0	µg/L	2017-11-21	
Manganese, total	2.92	AO ≤ 50	0.050	µg/L	2017-11-21	
Mercury, total	< 0.020	MAC = 1	0.020	µg/L	2017-11-21	
Molybdenum, total	0.764	N/A	0.010	µg/L	2017-11-21	
Nickel, total	0.215	N/A	0.040	µg/L	2017-11-21	
Phosphorus, total	< 10	N/A	10	µg/L	2017-11-21	
Potassium, total	857	N/A	10	µg/L	2017-11-21	
Selenium, total	0.47	MAC = 50	0.10	µg/L	2017-11-21	
Silicon, total	2830	N/A	100	µg/L	2017-11-21	
Silver, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Sodium, total	1200	AO ≤ 200000	20	µg/L	2017-11-21	
Strontium, total	77.4	N/A	0.10	µg/L	2017-11-21	
Sulfur, total	2000	N/A	1000	µg/L	2017-11-21	
Tellurium, total	< 0.050	N/A	0.050	µg/L	2017-11-21	
Thallium, total	< 0.0040	N/A	0.0040	µg/L	2017-11-21	
Thorium, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Tin, total	< 0.050	N/A	0.050	µg/L	2017-11-21	
Titanium, total	0.40	N/A	0.20	µg/L	2017-11-21	
Tungsten, total	< 0.20	N/A	0.20	µg/L	2017-11-21	
Uranium, total	0.450	MAC = 20	0.0010	µg/L	2017-11-21	



TEST RESULTS

REPORTED TO PROJECT Cherry Ridge Management Creek Monitoring

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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Shuswap River Picnic Site (7111165-04) Matrix: Water Sampled: 2017-11-14 10:40, Continued						F1, FILT, PRES

Total Metals, Continued

Vanadium, total	0.39	N/A	0.20	µg/L	2017-11-21	
Zinc, total	< 1.0	AO ≤ 5000	1.0	µg/L	2017-11-21	
Zirconium, total	0.027	N/A	0.020	µg/L	2017-11-21	

Microbiological Parameters

E. coli	2	MAC = 0	1	CFU/100 mL	2017-11-15	
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Ferry Creek (7111165-05) | Matrix: Water | Sampled: 2017-11-14 10:15

F1, FILT, PRES

Anions

Chloride	0.78	AO ≤ 250	0.10	mg/L	2017-11-17	
Nitrate (as N)	0.014	MAC = 10	0.010	mg/L	2017-11-17	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2017-11-17	
Sulfate	37.0	AO ≤ 500	1.0	mg/L	2017-11-17	

General Parameters

Conductivity (EC)	345	N/A	2.0	µS/cm	2017-11-15	
Nitrogen, Total Kjeldahl	< 0.050	N/A	0.050	mg/L	2017-11-17	
pH	8.26	7.0-10.5	0.10	pH units	2017-11-15	HT2
Phosphorus, Total (as P)	0.0100	N/A	0.0020	mg/L	2017-11-16	
Phosphorus, Total Dissolved	0.0078	N/A	0.0020	mg/L	2017-11-16	
Turbidity	0.21	OG < 1	0.10	NTU	2017-11-14	

Calculated Parameters

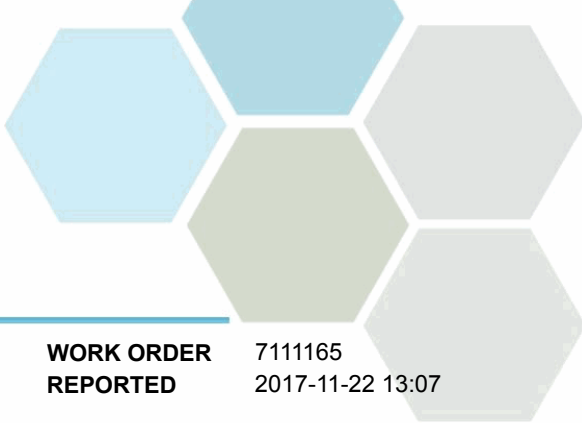
Hardness, Total (as CaCO3)	174	None Required	0.100	mg/L	N/A	
Nitrate+Nitrite (as N)	0.0137	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	< 0.0500	N/A	0.0500	mg/L	N/A	

Dissolved Metals

Aluminum, dissolved	1.9	N/A	1.0	µg/L	2017-11-22	
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Total Metals

Aluminum, total	4.3	OG < 100	2.0	µg/L	2017-11-21	
Antimony, total	0.095	MAC = 6	0.050	µg/L	2017-11-21	
Arsenic, total	1.30	MAC = 10	0.050	µg/L	2017-11-21	
Barium, total	20.0	MAC = 1000	0.10	µg/L	2017-11-21	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Boron, total	5.1	MAC = 5000	2.0	µg/L	2017-11-21	
Cadmium, total	0.0033	MAC = 5	0.0020	µg/L	2017-11-21	
Calcium, total	53000	N/A	40	µg/L	2017-11-21	
Chromium, total	0.31	MAC = 50	0.10	µg/L	2017-11-21	
Cobalt, total	0.0112	N/A	0.0050	µg/L	2017-11-21	



TEST RESULTS

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Creek Monitoring

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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Ferry Creek (7111165-05) Matrix: Water Sampled: 2017-11-14 10:15, Continued						F1, FILT, PRES

Total Metals, Continued

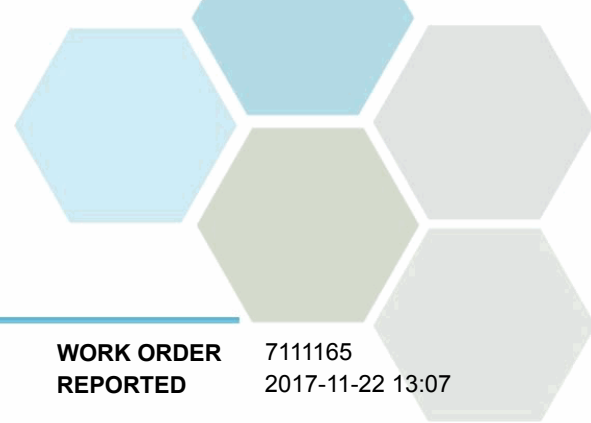
Copper, total	0.42	AO ≤ 1000	0.20	µg/L	2017-11-21	
Iron, total	8.6	AO ≤ 300	2.0	µg/L	2017-11-21	
Lead, total	< 0.050	MAC = 10	0.050	µg/L	2017-11-21	
Lithium, total	3.42	N/A	0.050	µg/L	2017-11-21	
Magnesium, total	10100	N/A	5.0	µg/L	2017-11-21	
Manganese, total	1.25	AO ≤ 50	0.050	µg/L	2017-11-21	
Mercury, total	< 0.020	MAC = 1	0.020	µg/L	2017-11-21	
Molybdenum, total	1.99	N/A	0.010	µg/L	2017-11-21	
Nickel, total	0.168	N/A	0.040	µg/L	2017-11-21	
Phosphorus, total	< 10	N/A	10	µg/L	2017-11-21	
Potassium, total	2770	N/A	10	µg/L	2017-11-21	
Selenium, total	0.83	MAC = 50	0.10	µg/L	2017-11-21	
Silicon, total	7250	N/A	100	µg/L	2017-11-21	
Silver, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Sodium, total	5720	AO ≤ 200000	20	µg/L	2017-11-21	
Strontium, total	271	N/A	0.10	µg/L	2017-11-21	
Sulfur, total	9800	N/A	1000	µg/L	2017-11-21	
Tellurium, total	< 0.050	N/A	0.050	µg/L	2017-11-21	
Thallium, total	< 0.0040	N/A	0.0040	µg/L	2017-11-21	
Thorium, total	< 0.010	N/A	0.010	µg/L	2017-11-21	
Tin, total	0.053	N/A	0.050	µg/L	2017-11-21	
Titanium, total	0.22	N/A	0.20	µg/L	2017-11-21	
Tungsten, total	< 0.20	N/A	0.20	µg/L	2017-11-21	
Uranium, total	1.24	MAC = 20	0.0010	µg/L	2017-11-21	
Vanadium, total	0.76	N/A	0.20	µg/L	2017-11-21	
Zinc, total	< 1.0	AO ≤ 5000	1.0	µg/L	2017-11-21	
Zirconium, total	0.033	N/A	0.020	µg/L	2017-11-21	

Microbiological Parameters

E. coli	< 1	MAC = 0	1	CFU/100 mL	2017-11-15	
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Sample Qualifiers:

- F1 The sample was not field-filtered and was therefore filtered through a 0.45 µm membrane in the laboratory and preserved with HNO3 prior to analysis for dissolved metals.
- FILT The sample has been filtered for DP in the laboratory. Results may not reflect conditions at the time of sampling.
- HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.
- PRES Sample has been preserved for DP, TP, TN in the laboratory and the holding time has been extended.



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Cherry Ridge Management Creek Monitoring

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Analysis Description	Method Ref.	Technique	Location
Anions in Water	SM 4110 B (2011)	Ion Chromatography	Kelowna
Conductivity in Water	SM 2510 B (2011)	Conductivity Meter	Kelowna
Dissolved Metals in Water	EPA 200.8 / EPA 6020B	0.45 µm Filtration / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	Richmond
E. coli in Water	SM 9222 G (2006)	Membrane Filtration / Nutrient Agar with MUG	Kelowna
Hardness in Water	SM 2340 B* (2011)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	N/A
Nitrogen, Total Kjeldahl in Water	SM 4500-Norg D* (2011)	Block Digestion and Flow Injection Analysis	Kelowna
pH in Water	SM 4500-H+ B (2011)	Electrometry	Kelowna
Phosphorus, Total Dissolved in Water	SM 4500-P B.5* (2011) / SM 4500-P F (2011)	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	Kelowna
Phosphorus, Total in Water	SM 4500-P B.5* (2011) / SM 4500-P F (2011)	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	Kelowna
Total Metals in Water	EPA 200.2* / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	Richmond
Turbidity in Water	SM 2130 B (2011)	Nephelometry	Kelowna

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

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
pH units	pH < 7 = acidic, pH > 7 = basic
µg/L	Micrograms per litre
µS/cm	Microsiemens per centimetre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

Guidelines Referenced in this Report:

[Guidelines for Canadian Drinking Water Quality \(Health Canada, Feb 2017\)](#)

General Comments:

The results in this report apply to the samples analyzed in accordance with the Chain of Custody 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. The quality control (QC) data is available upon request