



## 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** 9080832

**RECEIVED / TEMP** 2019-08-12 08:55 / 12°C

**REPORTED** 2019-08-19 16:35

**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.

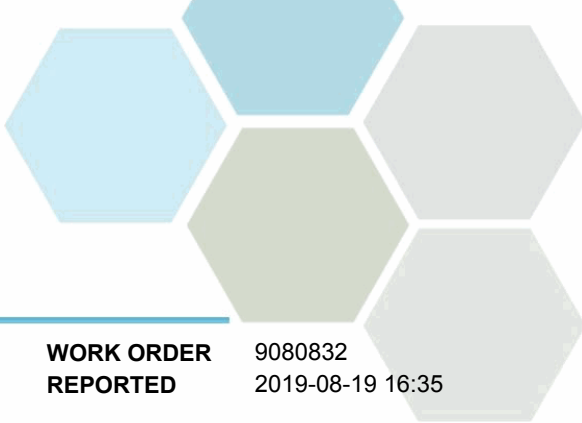
If you have any questions or concerns, please contact me at [teamcaro@caro.ca](mailto:teamcaro@caro.ca)

### Authorized By:

Team CARO  
Client Service Representative

1-888-311-8846 | [www.caro.ca](http://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** 9080832  
2019-08-19 16:35

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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North Fork Cherry Creek (9080832-01) | Matrix: Water | Sampled: 2019-08-11 11:20

F1, F2,  
FILT,  
PRES

**Anions**

Chloride	< 0.10	AO ≤ 250	0.10	mg/L	2019-08-13	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2019-08-13	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2019-08-13	
Sulfate	<b>9.6</b>	AO ≤ 500	1.0	mg/L	2019-08-13	

**Calculated Parameters**

Hardness, Total (as CaCO3)	<b>72.2</b>	None Required	0.100	mg/L	N/A	
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	<b>0.108</b>	N/A	0.0500	mg/L	N/A	

**Dissolved Metals**

Aluminum, dissolved	<b>7.8</b>	N/A	1.0	µg/L	2019-08-19	
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**General Parameters**

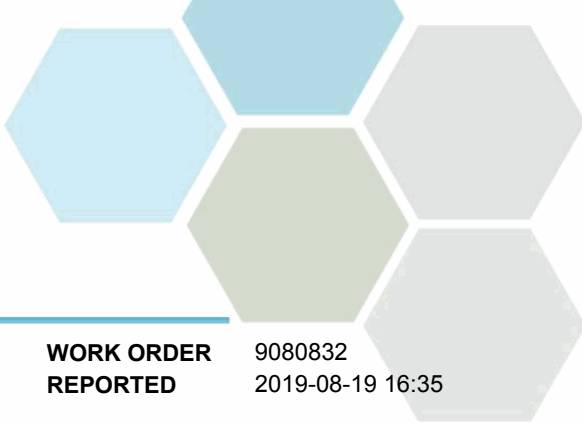
Conductivity (EC)	<b>146</b>	N/A	2.0	µS/cm	2019-08-12	
Nitrogen, Total Kjeldahl	<b>0.108</b>	N/A	0.050	mg/L	2019-08-14	
pH	<b>7.88</b>	7.0-10.5	0.10	pH units	2019-08-12	HT2
Phosphorus, Total (as P)	<b>0.0342</b>	N/A	0.0020	mg/L	2019-08-15	
Phosphorus, Total Dissolved	<b>0.0030</b>	N/A	0.0020	mg/L	2019-08-15	
Turbidity	<b>3.02</b>	OG < 1	0.10	NTU	2019-08-12	

**Microbiological Parameters**

E. coli	<b>150</b>	MAC = 0	1	CFU/100 mL	2019-08-12	
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**Total Metals**

Aluminum, total	<b>255</b>	OG < 100	2.0	µg/L	2019-08-17	
Antimony, total	<b>0.058</b>	MAC = 6	0.050	µg/L	2019-08-17	
Arsenic, total	<b>0.266</b>	MAC = 10	0.050	µg/L	2019-08-17	
Barium, total	<b>18.6</b>	MAC = 1000	0.10	µg/L	2019-08-17	
Beryllium, total	<b>0.011</b>	N/A	0.010	µg/L	2019-08-17	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Boron, total	< 2.0	MAC = 5000	2.0	µg/L	2019-08-17	
Cadmium, total	<b>0.0382</b>	MAC = 5	0.0020	µg/L	2019-08-17	
Calcium, total	<b>24800</b>	N/A	40	µg/L	2019-08-17	
Chromium, total	<b>1.52</b>	MAC = 50	0.10	µg/L	2019-08-17	
Cobalt, total	<b>0.256</b>	N/A	0.0050	µg/L	2019-08-17	
Copper, total	<b>1.12</b>	MAC = 2000	0.20	µg/L	2019-08-17	
Iron, total	<b>372</b>	AO ≤ 300	2.0	µg/L	2019-08-17	
Lead, total	<b>0.157</b>	MAC = 5	0.050	µg/L	2019-08-17	
Lithium, total	<b>1.44</b>	N/A	0.050	µg/L	2019-08-17	
Magnesium, total	<b>2470</b>	N/A	5.0	µg/L	2019-08-17	
Manganese, total	<b>13.9</b>	MAC = 120	0.050	µg/L	2019-08-17	
Molybdenum, total	<b>1.65</b>	N/A	0.010	µg/L	2019-08-17	



# TEST RESULTS

**REPORTED TO PROJECT** Cherry Ridge Management Creek Monitoring

**WORK ORDER REPORTED** 9080832  
2019-08-19 16:35

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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**North Fork Cherry Creek (9080832-01) | Matrix: Water | Sampled: 2019-08-11 11:20, Continued**

F1, F2,  
FILT,  
PRES

**Total Metals, Continued**

Nickel, total	1.00	N/A	0.040	µg/L	2019-08-17	
Phosphorus, total	43	N/A	10	µg/L	2019-08-17	
Potassium, total	1130	N/A	10	µg/L	2019-08-17	
Selenium, total	1.18	MAC = 50	0.10	µg/L	2019-08-17	
Silicon, total	4610	N/A	100	µg/L	2019-08-17	
Silver, total	0.010	N/A	0.010	µg/L	2019-08-17	
Sodium, total	1110	AO ≤ 200000	20	µg/L	2019-08-17	
Strontium, total	139	7000	0.10	µg/L	2019-08-17	
Sulfur, total	3300	N/A	1000	µg/L	2019-08-17	
Tellurium, total	< 0.050	N/A	0.050	µg/L	2019-08-17	
Thallium, total	0.0067	N/A	0.0040	µg/L	2019-08-17	
Thorium, total	0.014	N/A	0.010	µg/L	2019-08-17	
Tin, total	< 0.050	N/A	0.050	µg/L	2019-08-17	
Titanium, total	14.9	N/A	0.20	µg/L	2019-08-17	
Tungsten, total	< 0.20	N/A	0.20	µg/L	2019-08-17	
Uranium, total	0.451	MAC = 20	0.0010	µg/L	2019-08-17	
Vanadium, total	1.15	N/A	0.20	µg/L	2019-08-17	
Zinc, total	2.5	AO ≤ 5000	1.0	µg/L	2019-08-17	
Zirconium, total	0.021	N/A	0.020	µg/L	2019-08-17	

**Cherry Creek at Hall (9080832-02) | Matrix: Water | Sampled: 2019-08-11 11:49**

F1, F2,  
FILT,  
PRES

**Anions**

Chloride	1.91	AO ≤ 250	0.10	mg/L	2019-08-13	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2019-08-13	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2019-08-13	
Sulfate	13.9	AO ≤ 500	1.0	mg/L	2019-08-13	

**Calculated Parameters**

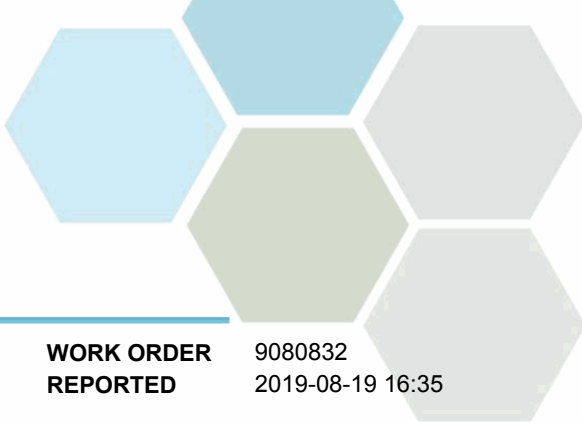
Hardness, Total (as CaCO3)	110	None Required	0.100	mg/L	N/A	
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	< 0.0500	N/A	0.0500	mg/L	N/A	

**Dissolved Metals**

Aluminum, dissolved	2.9	N/A	1.0	µg/L	2019-08-19	
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**General Parameters**

Conductivity (EC)	212	N/A	2.0	µS/cm	2019-08-12	
Nitrogen, Total Kjeldahl	< 0.050	N/A	0.050	mg/L	2019-08-14	
pH	8.03	7.0-10.5	0.10	pH units	2019-08-12	HT2



# TEST RESULTS

**REPORTED TO PROJECT** Cherry Ridge Management Creek Monitoring

**WORK ORDER REPORTED** 9080832  
2019-08-19 16:35

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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Cherry Creek at Hall (9080832-02) | Matrix: Water | Sampled: 2019-08-11 11:49, Continued

F1, F2,  
FILT,  
PRES

**General Parameters, Continued**

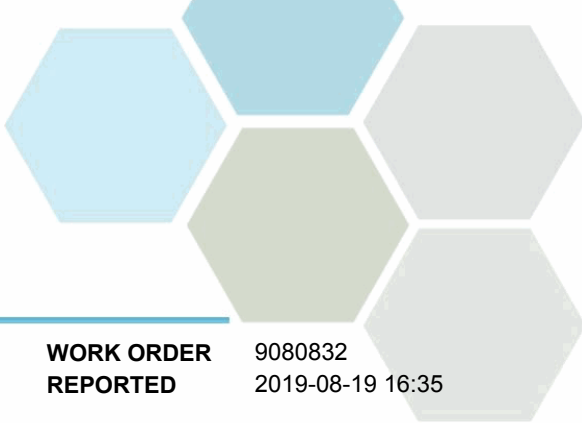
Phosphorus, Total (as P)	0.0133	N/A	0.0020	mg/L	2019-08-15	
Phosphorus, Total Dissolved	< 0.0020	N/A	0.0020	mg/L	2019-08-16	
Turbidity	1.45	OG < 1	0.10	NTU	2019-08-12	

**Microbiological Parameters**

E. coli	110	MAC = 0	1	CFU/100 mL	2019-08-12	
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**Total Metals**

Aluminum, total	47.5	OG < 100	2.0	µg/L	2019-08-17	
Antimony, total	0.092	MAC = 6	0.050	µg/L	2019-08-17	
Arsenic, total	0.482	MAC = 10	0.050	µg/L	2019-08-17	
Barium, total	19.5	MAC = 1000	0.10	µg/L	2019-08-17	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Boron, total	< 2.0	MAC = 5000	2.0	µg/L	2019-08-17	
Cadmium, total	0.0187	MAC = 5	0.0020	µg/L	2019-08-17	
Calcium, total	35500	N/A	40	µg/L	2019-08-17	
Chromium, total	0.59	MAC = 50	0.10	µg/L	2019-08-17	
Cobalt, total	0.0615	N/A	0.0050	µg/L	2019-08-17	
Copper, total	0.47	MAC = 2000	0.20	µg/L	2019-08-17	
Iron, total	88.8	AO ≤ 300	2.0	µg/L	2019-08-17	
Lead, total	< 0.050	MAC = 5	0.050	µg/L	2019-08-17	
Lithium, total	1.42	N/A	0.050	µg/L	2019-08-17	
Magnesium, total	5200	N/A	5.0	µg/L	2019-08-17	
Manganese, total	6.03	MAC = 120	0.050	µg/L	2019-08-17	
Molybdenum, total	1.69	N/A	0.010	µg/L	2019-08-17	
Nickel, total	0.302	N/A	0.040	µg/L	2019-08-17	
Phosphorus, total	19	N/A	10	µg/L	2019-08-17	
Potassium, total	919	N/A	10	µg/L	2019-08-17	
Selenium, total	1.23	MAC = 50	0.10	µg/L	2019-08-17	
Silicon, total	4720	N/A	100	µg/L	2019-08-17	
Silver, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Sodium, total	2170	AO ≤ 200000	20	µg/L	2019-08-17	
Strontium, total	219	7000	0.10	µg/L	2019-08-17	
Sulfur, total	5000	N/A	1000	µg/L	2019-08-17	
Tellurium, total	< 0.050	N/A	0.050	µg/L	2019-08-17	
Thallium, total	< 0.0040	N/A	0.0040	µg/L	2019-08-17	
Thorium, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Tin, total	< 0.050	N/A	0.050	µg/L	2019-08-17	
Titanium, total	2.38	N/A	0.20	µg/L	2019-08-17	
Tungsten, total	< 0.20	N/A	0.20	µg/L	2019-08-17	
Uranium, total	0.551	MAC = 20	0.0010	µg/L	2019-08-17	



# TEST RESULTS

**REPORTED TO PROJECT** Cherry Ridge Management Creek Monitoring

**WORK ORDER REPORTED** 9080832  
2019-08-19 16:35

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
<b>Cherry Creek at Hall (9080832-02)   Matrix: Water   Sampled: 2019-08-11 11:49, Continued</b>						F1, F2, FILT, PRES

**Total Metals, Continued**

Vanadium, total	0.44	N/A	0.20	µg/L	2019-08-17	
Zinc, total	1.1	AO ≤ 5000	1.0	µg/L	2019-08-17	
Zirconium, total	< 0.020	N/A	0.020	µg/L	2019-08-17	

**Shuswap River Picnic Site (9080832-03) | Matrix: Water | Sampled: 2019-08-11 10:23**

F1, F2, FILT, PRES

**Anions**

Chloride	0.39	AO ≤ 250	0.10	mg/L	2019-08-13	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2019-08-13	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2019-08-13	
Sulfate	6.4	AO ≤ 500	1.0	mg/L	2019-08-13	

**Calculated Parameters**

Hardness, Total (as CaCO3)	50.0	None Required	0.100	mg/L	N/A	
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	0.0580	N/A	0.0500	mg/L	N/A	

**Dissolved Metals**

Aluminum, dissolved	7.9	N/A	1.0	µg/L	2019-08-19	
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**General Parameters**

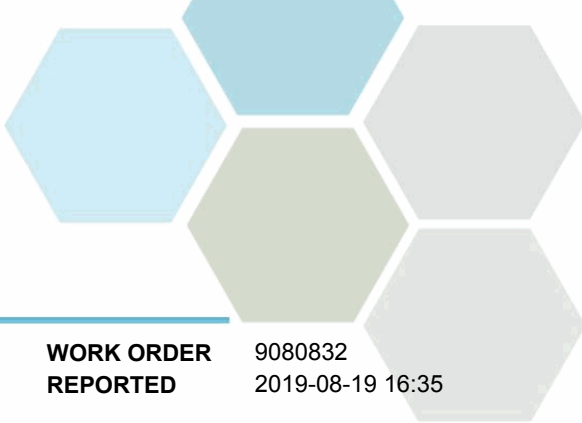
Conductivity (EC)	99.1	N/A	2.0	µS/cm	2019-08-12	
Nitrogen, Total Kjeldahl	0.058	N/A	0.050	mg/L	2019-08-14	
pH	7.69	7.0-10.5	0.10	pH units	2019-08-12	HT2
Phosphorus, Total (as P)	0.0084	N/A	0.0020	mg/L	2019-08-15	
Phosphorus, Total Dissolved	0.0073	N/A	0.0020	mg/L	2019-08-15	
Turbidity	0.80	OG < 1	0.10	NTU	2019-08-12	

**Microbiological Parameters**

E. coli	30	MAC = 0	1	CFU/100 mL	2019-08-12	
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**Total Metals**

Aluminum, total	34.4	OG < 100	2.0	µg/L	2019-08-17	
Antimony, total	0.056	MAC = 6	0.050	µg/L	2019-08-17	
Arsenic, total	0.226	MAC = 10	0.050	µg/L	2019-08-17	
Barium, total	10.4	MAC = 1000	0.10	µg/L	2019-08-17	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Boron, total	< 2.0	MAC = 5000	2.0	µg/L	2019-08-17	
Cadmium, total	0.0093	MAC = 5	0.0020	µg/L	2019-08-17	
Calcium, total	16900	N/A	40	µg/L	2019-08-17	



# TEST RESULTS

**REPORTED TO PROJECT** Cherry Ridge Management  
Creek Monitoring

**WORK ORDER REPORTED** 9080832  
2019-08-19 16:35

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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**Shuswap River Picnic Site (9080832-03) | Matrix: Water | Sampled: 2019-08-11 10:23, Continued**

F1, F2,  
FILT,  
PRES

**Total Metals, Continued**

Chromium, total	0.39	MAC = 50	0.10	µg/L	2019-08-17	
Cobalt, total	0.0383	N/A	0.0050	µg/L	2019-08-17	
Copper, total	0.40	MAC = 2000	0.20	µg/L	2019-08-17	
Iron, total	63.5	AO ≤ 300	2.0	µg/L	2019-08-17	
Lead, total	< 0.050	MAC = 5	0.050	µg/L	2019-08-17	
Lithium, total	0.710	N/A	0.050	µg/L	2019-08-17	
Magnesium, total	1890	N/A	5.0	µg/L	2019-08-17	
Manganese, total	5.86	MAC = 120	0.050	µg/L	2019-08-17	
Molybdenum, total	0.973	N/A	0.010	µg/L	2019-08-17	
Nickel, total	0.224	N/A	0.040	µg/L	2019-08-17	
Phosphorus, total	22	N/A	10	µg/L	2019-08-17	
Potassium, total	795	N/A	10	µg/L	2019-08-17	
Selenium, total	0.45	MAC = 50	0.10	µg/L	2019-08-17	
Silicon, total	3030	N/A	100	µg/L	2019-08-17	
Silver, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Sodium, total	1030	AO ≤ 200000	20	µg/L	2019-08-17	
Strontium, total	82.5	7000	0.10	µg/L	2019-08-17	
Sulfur, total	2400	N/A	1000	µg/L	2019-08-17	
Tellurium, total	< 0.050	N/A	0.050	µg/L	2019-08-17	
Thallium, total	< 0.0040	N/A	0.0040	µg/L	2019-08-17	
Thorium, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Tin, total	< 0.050	N/A	0.050	µg/L	2019-08-17	
Titanium, total	1.47	N/A	0.20	µg/L	2019-08-17	
Tungsten, total	< 0.20	N/A	0.20	µg/L	2019-08-17	
Uranium, total	0.331	MAC = 20	0.0010	µg/L	2019-08-17	
Vanadium, total	0.44	N/A	0.20	µg/L	2019-08-17	
Zinc, total	< 1.0	AO ≤ 5000	1.0	µg/L	2019-08-17	
Zirconium, total	< 0.020	N/A	0.020	µg/L	2019-08-17	

**Ferry Creek (9080832-04) | Matrix: Water | Sampled: 2019-08-11 10:45**

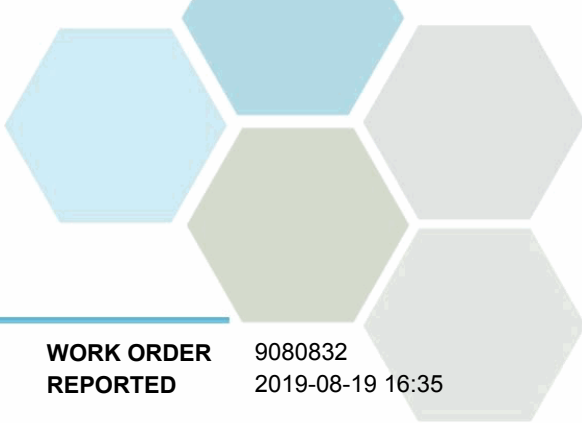
F1, F2,  
FILT,  
PRES

**Anions**

Chloride	1.13	AO ≤ 250	0.10	mg/L	2019-08-13	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2019-08-13	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2019-08-13	
Sulfate	23.6	AO ≤ 500	1.0	mg/L	2019-08-13	

**Calculated Parameters**

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



# TEST RESULTS

**REPORTED TO PROJECT** Cherry Ridge Management Creek Monitoring

**WORK ORDER REPORTED** 9080832  
2019-08-19 16:35

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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Ferry Creek (9080832-04) | Matrix: Water | Sampled: 2019-08-11 10:45, Continued

F1, F2,  
FILT,  
PRES

**Calculated Parameters, Continued**

Nitrogen, Total	0.129	N/A	0.0500	mg/L	N/A	
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**Dissolved Metals**

Aluminum, dissolved	7.4	N/A	1.0	µg/L	2019-08-19	
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**General Parameters**

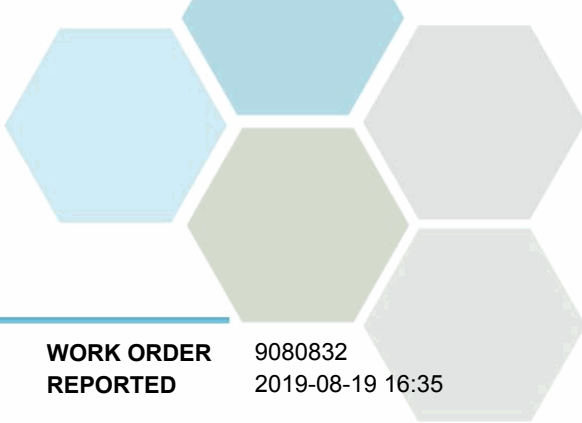
Conductivity (EC)	268	N/A	2.0	µS/cm	2019-08-12	
Nitrogen, Total Kjeldahl	0.129	N/A	0.050	mg/L	2019-08-14	
pH	8.17	7.0-10.5	0.10	pH units	2019-08-12	HT2
Phosphorus, Total (as P)	0.0159	N/A	0.0020	mg/L	2019-08-15	
Phosphorus, Total Dissolved	0.0090	N/A	0.0020	mg/L	2019-08-15	
Turbidity	0.46	OG < 1	0.10	NTU	2019-08-12	

**Microbiological Parameters**

E. coli	23	MAC = 0	1	CFU/100 mL	2019-08-12	
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**Total Metals**

Aluminum, total	25.3	OG < 100	2.0	µg/L	2019-08-17	
Antimony, total	0.071	MAC = 6	0.050	µg/L	2019-08-17	
Arsenic, total	1.02	MAC = 10	0.050	µg/L	2019-08-17	
Barium, total	19.4	MAC = 1000	0.10	µg/L	2019-08-17	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Boron, total	2.3	MAC = 5000	2.0	µg/L	2019-08-17	
Cadmium, total	0.0063	MAC = 5	0.0020	µg/L	2019-08-17	
Calcium, total	41200	N/A	40	µg/L	2019-08-17	
Chromium, total	0.38	MAC = 50	0.10	µg/L	2019-08-17	
Cobalt, total	0.0338	N/A	0.0050	µg/L	2019-08-17	
Copper, total	0.44	MAC = 2000	0.20	µg/L	2019-08-17	
Iron, total	40.6	AO ≤ 300	2.0	µg/L	2019-08-17	
Lead, total	< 0.050	MAC = 5	0.050	µg/L	2019-08-17	
Lithium, total	3.28	N/A	0.050	µg/L	2019-08-17	
Magnesium, total	7840	N/A	5.0	µg/L	2019-08-17	
Manganese, total	4.01	MAC = 120	0.050	µg/L	2019-08-17	
Molybdenum, total	1.67	N/A	0.010	µg/L	2019-08-17	
Nickel, total	0.222	N/A	0.040	µg/L	2019-08-17	
Phosphorus, total	24	N/A	10	µg/L	2019-08-17	
Potassium, total	2630	N/A	10	µg/L	2019-08-17	
Selenium, total	0.57	MAC = 50	0.10	µg/L	2019-08-17	
Silicon, total	8180	N/A	100	µg/L	2019-08-17	
Silver, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Sodium, total	4500	AO ≤ 200000	20	µg/L	2019-08-17	



# TEST RESULTS

**REPORTED TO PROJECT** Cherry Ridge Management  
Creek Monitoring

**WORK ORDER REPORTED** 9080832  
2019-08-19 16:35

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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**Ferry Creek (9080832-04) | Matrix: Water | Sampled: 2019-08-11 10:45, Continued**

F1, F2,  
FILT,  
PRES

**Total Metals, Continued**

Strontium, total	240	7000	0.10	µg/L	2019-08-17	
Sulfur, total	8100	N/A	1000	µg/L	2019-08-17	
Tellurium, total	< 0.050	N/A	0.050	µg/L	2019-08-17	
Thallium, total	< 0.0040	N/A	0.0040	µg/L	2019-08-17	
Thorium, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Tin, total	< 0.050	N/A	0.050	µg/L	2019-08-17	
Titanium, total	1.30	N/A	0.20	µg/L	2019-08-17	
Tungsten, total	< 0.20	N/A	0.20	µg/L	2019-08-17	
Uranium, total	0.874	MAC = 20	0.0010	µg/L	2019-08-17	
Vanadium, total	0.74	N/A	0.20	µg/L	2019-08-17	
Zinc, total	< 1.0	AO ≤ 5000	1.0	µg/L	2019-08-17	
Zirconium, total	0.058	N/A	0.020	µg/L	2019-08-17	

**1/2 Mile Creek (9080832-05) | Matrix: Water | Sampled: 2019-08-11 12:08**

F1, F2,  
FILT,  
PRES

**Anions**

Chloride	0.35	AO ≤ 250	0.10	mg/L	2019-08-13	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2019-08-13	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2019-08-13	
Sulfate	30.7	AO ≤ 500	1.0	mg/L	2019-08-13	

**Calculated Parameters**

Hardness, Total (as CaCO3)	194	None Required	0.100	mg/L	N/A	
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	< 0.0500	N/A	0.0500	mg/L	N/A	

**Dissolved Metals**

Aluminum, dissolved	3.0	N/A	1.0	µg/L	2019-08-19	
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**General Parameters**

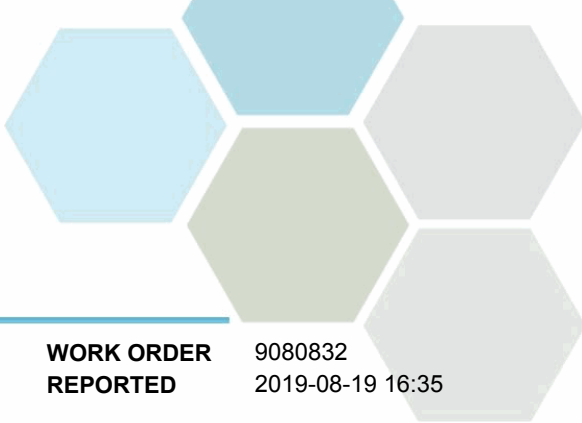
Conductivity (EC)	365	N/A	2.0	µS/cm	2019-08-12	
Nitrogen, Total Kjeldahl	< 0.050	N/A	0.050	mg/L	2019-08-14	
pH	8.23	7.0-10.5	0.10	pH units	2019-08-12	HT2
Phosphorus, Total (as P)	< 0.0020	N/A	0.0020	mg/L	2019-08-15	
Phosphorus, Total Dissolved	< 0.0020	N/A	0.0020	mg/L	2019-08-15	
Turbidity	0.61	OG < 1	0.10	NTU	2019-08-12	

**Microbiological Parameters**

E. coli	< 1	MAC = 0	1	CFU/100 mL	2019-08-12	
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**Total Metals**



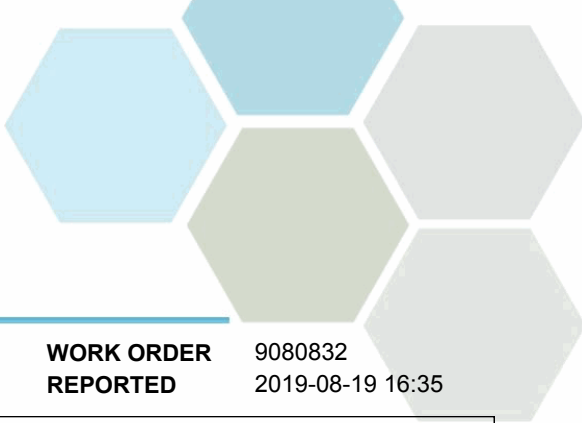


# TEST RESULTS

**REPORTED TO PROJECT** Cherry Ridge Management Creek Monitoring

**WORK ORDER REPORTED** 9080832  
2019-08-19 16:35

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
<b>1/2 Mile Creek (9080832-05)   Matrix: Water   Sampled: 2019-08-11 12:08, Continued</b>						F1, F2, FILT, PRES
<i>Total Metals, Continued</i>						
Aluminum, total	6.0	OG < 100	2.0	µg/L	2019-08-17	
Antimony, total	0.149	MAC = 6	0.050	µg/L	2019-08-17	
Arsenic, total	0.707	MAC = 10	0.050	µg/L	2019-08-17	
Barium, total	18.8	MAC = 1000	0.10	µg/L	2019-08-17	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Boron, total	2.1	MAC = 5000	2.0	µg/L	2019-08-17	
Cadmium, total	0.0040	MAC = 5	0.0020	µg/L	2019-08-17	
Calcium, total	62600	N/A	40	µg/L	2019-08-17	
Chromium, total	0.35	MAC = 50	0.10	µg/L	2019-08-17	
Cobalt, total	0.0161	N/A	0.0050	µg/L	2019-08-17	
Copper, total	0.38	MAC = 2000	0.20	µg/L	2019-08-17	
Iron, total	5.9	AO ≤ 300	2.0	µg/L	2019-08-17	
Lead, total	< 0.050	MAC = 5	0.050	µg/L	2019-08-17	
Lithium, total	1.60	N/A	0.050	µg/L	2019-08-17	
Magnesium, total	9050	N/A	5.0	µg/L	2019-08-17	
Manganese, total	0.374	MAC = 120	0.050	µg/L	2019-08-17	
Molybdenum, total	1.08	N/A	0.010	µg/L	2019-08-17	
Nickel, total	0.109	N/A	0.040	µg/L	2019-08-17	
Phosphorus, total	18	N/A	10	µg/L	2019-08-17	
Potassium, total	1260	N/A	10	µg/L	2019-08-17	
Selenium, total	1.02	MAC = 50	0.10	µg/L	2019-08-17	
Silicon, total	6630	N/A	100	µg/L	2019-08-17	
Silver, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Sodium, total	2560	AO ≤ 200000	20	µg/L	2019-08-17	
Strontium, total	377	7000	0.10	µg/L	2019-08-17	
Sulfur, total	10000	N/A	1000	µg/L	2019-08-17	
Tellurium, total	< 0.050	N/A	0.050	µg/L	2019-08-17	
Thallium, total	< 0.0040	N/A	0.0040	µg/L	2019-08-17	
Thorium, total	< 0.010	N/A	0.010	µg/L	2019-08-17	
Tin, total	< 0.050	N/A	0.050	µg/L	2019-08-17	
Titanium, total	0.22	N/A	0.20	µg/L	2019-08-17	
Tungsten, total	< 0.20	N/A	0.20	µg/L	2019-08-17	
Uranium, total	0.401	MAC = 20	0.0010	µg/L	2019-08-17	
Vanadium, total	0.59	N/A	0.20	µg/L	2019-08-17	
Zinc, total	< 1.0	AO ≤ 5000	1.0	µg/L	2019-08-17	
Zirconium, total	< 0.020	N/A	0.020	µg/L	2019-08-17	



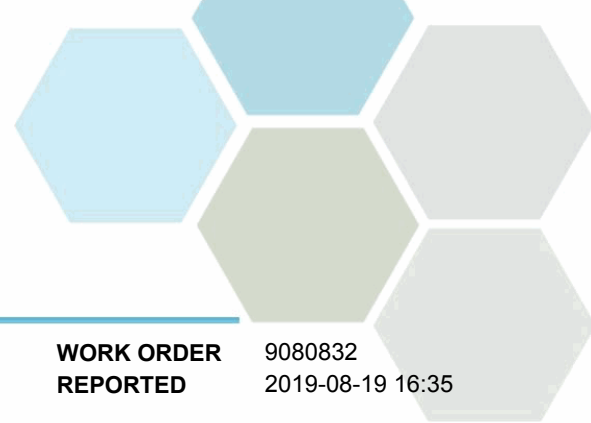
## TEST RESULTS

**REPORTED TO** Cherry Ridge Management  
**PROJECT** Creek Monitoring

**WORK ORDER** 9080832  
**REPORTED** 2019-08-19 16:35

**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.
- F2 The sample was not field-preserved with HNO3 and was therefore preserved in the laboratory and held for at least 16 hours prior to analysis for total metals.
- FILT The sample has been filtered for TDP 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 TDP in the laboratory and the holding time has been extended.



## APPENDIX 1: SUPPORTING INFORMATION

**REPORTED TO PROJECT** Cherry Ridge Management Creek Monitoring

**WORK ORDER REPORTED** 9080832  
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Analysis Description	Method Ref.	Technique	Location
Anions in Water	SM 4110 B (2017)	Ion Chromatography	Kelowna
Conductivity in Water	SM 2510 B (2017)	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 (2017)	Membrane Filtration / Nutrient Agar with MUG	Kelowna
Hardness in Water	SM 2340 B* (2017)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	N/A
Nitrogen, Total Kjeldahl in Water	SM 4500-Norg D* (2017)	Block Digestion and Flow Injection Analysis	Kelowna
pH in Water	SM 4500-H+ B (2017)	Electrometry	Kelowna
Phosphorus, Total Dissolved in Water	SM 4500-P B.5* (2011) / SM 4500-P F (2017)	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	Kelowna
Phosphorus, Total in Water	SM 4500-P B.5* (2011) / SM 4500-P F (2017)	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	Kelowna
Total Metals in Water	EPA 200.2* / EPA 6020B	HNO <sub>3</sub> +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	Richmond
Turbidity in Water	SM 2130 B (2017)	Nephelometry	Kelowna

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

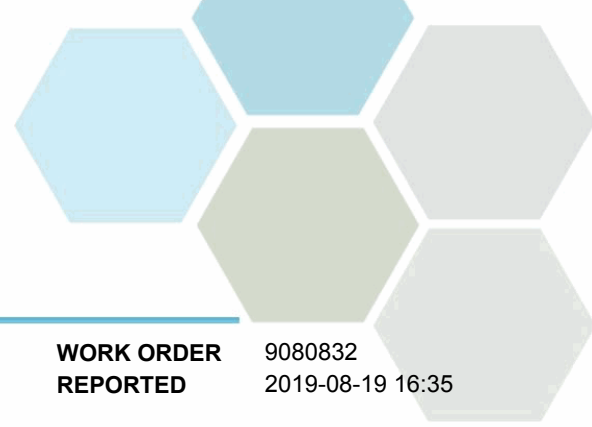
### Glossary of Terms:

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 \(Health Canada, Feb 2017\)](#)

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



## APPENDIX 1: SUPPORTING INFORMATION

**REPORTED TO** Cherry Ridge Management  
**PROJECT** Creek Monitoring

**WORK ORDER** 9080832  
**REPORTED** 2019-08-19 16:35

**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

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: [teamcaro@caro.ca](mailto:teamcaro@caro.ca)