

CERTIFICATE OF ANALYSIS



CLIENT **Cherry Ridge Management**
37 Hollingsworth Rd
Cherryville BC
VOE 2G2

TEL 1-250-547-9091
FAX -

ATTENTION **Melanie Staker**

RECEIVED / TEMP Sep-17-12 08:45 / 10.0 °C
REPORTED Sep-24-12
COC #(s) 12307

WORK ORDER 2090790
PROJECT Creek Monitoring

General Comments:

CARO Analytical Services employs methods which are based on those found in "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, published by the American Public Health Association (APHA); US EPA protocols found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition; protocols published by the British Columbia Ministry of Environment (BCMOE); and/or CCME Canada-wide Standard Reference methods.

Methods not described in these publications are conducted according to procedures accepted by appropriate regulatory agencies, and/or are done 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 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.

- All solids results are reported on a dry weight basis unless otherwise noted
- Units: mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)
mg/L = milligrams per litre, equivalent to parts per million (ppm)
ug/L = micrograms per litre, equivalent to parts per billion (ppb)
ug/g = micrograms per gram, equivalent to parts per million (ppm)
ug/m³ = micrograms per cubic meter of air
- "RDL" Reported detection limit
- "<" Less than reported detection limit
- "AO" Aesthetic objective
- "MAC" Maximum acceptable concentration (health-related guideline)
- "LAB" RMD = Richmond location, KEL = Kelowna location, EDM = Edmonton location, SUB = Subcontracted

Please contact CARO if more information is needed or to provide feedback on our services.

CARO Analytical Services

Final Review Per: **Jennifer Shanko, ASCT**
Administration Coordinator, Kelowna

Locations:

#110 4011 Viking Way
Richmond, BC V6V 2K9
Tel: 604-279-1499 Fax: 604-279-1599

#102 3677 Highway 97N
Kelowna, BC V1X 5C3
Tel: 250-765-9646 Fax: 250-765-3893

17225 109 Avenue
Edmonton, AB T5S 1H7
Tel: 780-489-9100 Fax: 780-489-9700

www.caro.ca

SAMPLE DATA



CLIENT Cherry Ridge Management
PROJECT Creek Monitoring

WORK ORDER # 2090790
REPORTED Sep-24-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
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General Parameters

North Fork Cherry Creek (2090790-01) Matrix: Water Sampled: Sep-16-12 13:35

Chloride	0.10	0.10	mg/L	Sep-18-12	Sep-18-12	
Nitrogen, Nitrate as N	< 0.010	0.010	mg/L	Sep-18-12	Sep-18-12	
Nitrogen, Nitrite as N	< 0.010	0.010	mg/L	Sep-18-12	Sep-18-12	
Nitrogen, Total Kjeldahl	< 0.05	0.05	mg/L	Sep-18-12	Sep-19-12	
Phosphorus, Total Kjeldahl	0.04	0.01	mg/L	Sep-18-12	Sep-19-12	
Phosphorus, Total Kjeldahl Dissolved	0.02	0.01	mg/L	Sep-18-12	Sep-19-12	
Turbidity	0.2	0.1	NTU	Sep-17-12	Sep-17-12	

South Fork Cherry Creek (2090790-02) Matrix: Water Sampled: Sep-16-12 12:50

Chloride	1.87	0.10	mg/L	Sep-18-12	Sep-18-12	
Nitrogen, Nitrate as N	0.037	0.010	mg/L	Sep-18-12	Sep-18-12	
Nitrogen, Nitrite as N	< 0.010	0.010	mg/L	Sep-18-12	Sep-18-12	
Nitrogen, Total Kjeldahl	< 0.05	0.05	mg/L	Sep-18-12	Sep-19-12	
Phosphorus, Total Kjeldahl	0.05	0.01	mg/L	Sep-18-12	Sep-19-12	
Phosphorus, Total Kjeldahl Dissolved	0.05	0.01	mg/L	Sep-18-12	Sep-19-12	
Turbidity	0.6	0.1	NTU	Sep-17-12	Sep-17-12	

Cherry Creek (at Hall) (2090790-03) Matrix: Water Sampled: Sep-16-12 13:05

Chloride	2.76	0.10	mg/L	Sep-18-12	Sep-18-12	
Nitrogen, Nitrate as N	0.019	0.010	mg/L	Sep-18-12	Sep-18-12	
Nitrogen, Nitrite as N	< 0.010	0.010	mg/L	Sep-18-12	Sep-18-12	
Nitrogen, Total Kjeldahl	0.08	0.05	mg/L	Sep-18-12	Sep-19-12	
Phosphorus, Total Kjeldahl	0.03	0.01	mg/L	Sep-18-12	Sep-19-12	
Phosphorus, Total Kjeldahl Dissolved	0.03	0.01	mg/L	Sep-18-12	Sep-19-12	
Turbidity	0.4	0.1	NTU	Sep-17-12	Sep-17-12	

Shuswap River (Picnic Site) (2090790-04) Matrix: Water Sampled: Sep-16-12 09:55

Chloride	0.49	0.10	mg/L	Sep-18-12	Sep-18-12	
Nitrogen, Nitrate as N	< 0.010	0.010	mg/L	Sep-18-12	Sep-18-12	
Nitrogen, Nitrite as N	< 0.010	0.010	mg/L	Sep-18-12	Sep-18-12	
Nitrogen, Total Kjeldahl	0.05	0.05	mg/L	Sep-18-12	Sep-19-12	
Phosphorus, Total Kjeldahl	0.02	0.01	mg/L	Sep-18-12	Sep-19-12	
Phosphorus, Total Kjeldahl Dissolved	0.02	0.01	mg/L	Sep-18-12	Sep-19-12	
Turbidity	0.3	0.1	NTU	Sep-17-12	Sep-17-12	

Ferry Creek (2090790-05) Matrix: Water Sampled: Sep-16-12 10:15

Chloride	0.64	0.10	mg/L	Sep-18-12	Sep-18-12	
Nitrogen, Nitrate as N	0.010	0.010	mg/L	Sep-18-12	Sep-18-12	
Nitrogen, Nitrite as N	< 0.010	0.010	mg/L	Sep-18-12	Sep-18-12	
Nitrogen, Total Kjeldahl	< 0.05	0.05	mg/L	Sep-18-12	Sep-19-12	
Phosphorus, Total Kjeldahl	0.02	0.01	mg/L	Sep-18-12	Sep-19-12	
Phosphorus, Total Kjeldahl Dissolved	0.02	0.01	mg/L	Sep-18-12	Sep-19-12	
Turbidity	0.3	0.1	NTU	Sep-17-12	Sep-17-12	

Calculated Parameters

North Fork Cherry Creek (2090790-01) Matrix: Water Sampled: Sep-16-12 13:35

Nitrogen, Nitrate+Nitrite as N	< 0.020	0.020	mg/L	N/A	N/A	
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Calculated Parameters, Continued

North Fork Cherry Creek (2090790-01) Matrix: Water Sampled: Sep-16-12 13:35, Continued

Nitrogen, Total	< 0.070	0.070	mg/L	N/A	N/A	
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South Fork Cherry Creek (2090790-02) Matrix: Water Sampled: Sep-16-12 12:50

Nitrogen, Nitrate+Nitrite as N	0.037	0.020	mg/L	N/A	N/A	
Nitrogen, Total	< 0.070	0.070	mg/L	N/A	N/A	

Cherry Creek (at Hall) (2090790-03) Matrix: Water Sampled: Sep-16-12 13:05

Nitrogen, Nitrate+Nitrite as N	< 0.020	0.020	mg/L	N/A	N/A	
Nitrogen, Total	0.097	0.070	mg/L	N/A	N/A	

Shuswap River (Picnic Site) (2090790-04) Matrix: Water Sampled: Sep-16-12 09:55

Nitrogen, Nitrate+Nitrite as N	< 0.020	0.020	mg/L	N/A	N/A	
Nitrogen, Total	< 0.070	0.070	mg/L	N/A	N/A	

Ferry Creek (2090790-05) Matrix: Water Sampled: Sep-16-12 10:15

Nitrogen, Nitrate+Nitrite as N	< 0.020	0.020	mg/L	N/A	N/A	
Nitrogen, Total	< 0.070	0.070	mg/L	N/A	N/A	

Microbiological Parameters

North Fork Cherry Creek (2090790-01) Matrix: Water Sampled: Sep-16-12 13:35

E. coli	< 1	1	CFU/100mL	Sep-17-12	Sep-18-12	
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South Fork Cherry Creek (2090790-02) Matrix: Water Sampled: Sep-16-12 12:50

E. coli	< 1	1	CFU/100mL	Sep-17-12	Sep-18-12	
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Cherry Creek (at Hall) (2090790-03) Matrix: Water Sampled: Sep-16-12 13:05

E. coli	1	1	CFU/100mL	Sep-17-12	Sep-18-12	
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Shuswap River (Picnic Site) (2090790-04) Matrix: Water Sampled: Sep-16-12 09:55

E. coli	1	1	CFU/100mL	Sep-17-12	Sep-18-12	
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Ferry Creek (2090790-05) Matrix: Water Sampled: Sep-16-12 10:15

E. coli	2	1	CFU/100mL	Sep-17-12	Sep-18-12	
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ANALYSIS / REPORT INFORMATION

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Analysis Description	Method Reference(s) (* = modified from)		LAB
	Preparation	Analysis	
Total Nitrogen (TKN + NO3-N+NO2-N)	N/A	[CALC]	KEL
Phosphorus, Total Dissolved Kjeldahl	N/A	EPA 365.4 *	KEL
Phosphorus, Total Kjeldahl	N/A	EPA 365.4 *	KEL
Total Kjeldahl Nitrogen	N/A	EPA 351.2 *	KEL
Chloride by IC	N/A	APHA 4110 B	KEL
Nitrite-N by IC	N/A	APHA 4110 B	KEL
Nitrate-N by IC	N/A	APHA 4110 B	KEL
Turbidity	N/A	APHA 2130 B	KEL
E. coli (by Endo)	N/A	APHA 9222 G	KEL