

## CERTIFICATE OF ANALYSIS



**CLIENT** **Cherry Ridge Management**  
37 Hollingsworth Rd  
Cherryville BC TEL 1-250-547-9091  
V0E 2G2 FAX -

**ATTENTION** **Melanie Staker**

**RECEIVED / TEMP** May-30-11 09:10 / 7.0 °C **WORK ORDER** K1E1046  
**REPORTED** Jun-06-11 **PROJECT** Creek Monitoring  
**COC #(s)** 29580

### 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: **Sarah Speier, B.Sc. For Jennifer Shanko, ASCT**  
Administration Coordinator

### CARO Analytical Services

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**SAMPLE DATA**



**CLIENT** Cherry Ridge Management  
**PROJECT** Creek Monitoring

**WORK ORDER #** K1E1046  
**REPORTED** Jun-06-11

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
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**General Parameters**

**North Fork Cherry Creek (K1E1046-01) Matrix: Water Sampled: May-29-11 13:55**

Nitrogen, Ammonia as N	0.03	0.02	mg/L	May-30-11	May-30-11	
Nitrogen, Nitrate+Nitrite as N	0.03	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Nitrate as N	0.03	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Nitrite as N	< 0.01	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Total Kjeldahl	0.12	0.05	mg/L	May-30-11	Jun-03-11	
Nitrogen, Total	0.16	0.05	mg/L	Jun-01-11	Jun-03-11	
Phosphorus, Total	0.02	0.01	mg/L	May-30-11	Jun-02-11	
Phosphorus, Dissolved	< 0.01	0.01	mg/L	May-30-11	Jun-03-11	
Turbidity	5.4	0.1	NTU	May-31-11	May-31-11	

**South Fork Cherry Creek (K1E1046-02) Matrix: Water Sampled: May-29-11 14:35**

Nitrogen, Ammonia as N	0.03	0.02	mg/L	May-30-11	May-30-11	
Nitrogen, Nitrate+Nitrite as N	0.13	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Nitrate as N	0.13	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Nitrite as N	< 0.01	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Total Kjeldahl	0.13	0.05	mg/L	May-30-11	Jun-03-11	
Nitrogen, Total	0.27	0.05	mg/L	Jun-01-11	Jun-03-11	
Phosphorus, Total	0.03	0.01	mg/L	May-30-11	Jun-02-11	
Phosphorus, Dissolved	< 0.01	0.01	mg/L	May-30-11	Jun-03-11	
Turbidity	7.9	0.1	NTU	May-31-11	May-31-11	

**North Fork At Junction (K1E1046-03) Matrix: Water Sampled: May-29-11 13:20**

Nitrogen, Ammonia as N	0.03	0.02	mg/L	May-30-11	May-30-11	
Nitrogen, Nitrate+Nitrite as N	0.03	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Nitrate as N	0.03	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Nitrite as N	< 0.01	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Total Kjeldahl	0.13	0.05	mg/L	May-30-11	Jun-03-11	
Nitrogen, Total	0.16	0.05	mg/L	Jun-01-11	Jun-03-11	
Phosphorus, Total	0.07	0.01	mg/L	May-30-11	Jun-02-11	
Phosphorus, Dissolved	< 0.01	0.01	mg/L	May-30-11	Jun-03-11	
Turbidity	11	0.1	NTU	May-31-11	May-31-11	

**South Fork at Junction (K1E1046-04) Matrix: Water Sampled: May-29-11 13:30**

Nitrogen, Ammonia as N	0.03	0.02	mg/L	May-30-11	May-30-11	
Nitrogen, Nitrate+Nitrite as N	0.10	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Nitrate as N	0.10	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Nitrite as N	< 0.01	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Total Kjeldahl	0.11	0.05	mg/L	May-30-11	Jun-03-11	
Nitrogen, Total	0.22	0.05	mg/L	Jun-01-11	Jun-03-11	
Phosphorus, Total	0.03	0.01	mg/L	May-30-11	Jun-02-11	
Phosphorus, Dissolved	< 0.01	0.01	mg/L	May-30-11	Jun-03-11	
Turbidity	12	0.1	NTU	May-31-11	May-31-11	

**Shuswap River Picnic Site (K1E1046-05) Matrix: Water Sampled: May-29-11**

Nitrogen, Ammonia as N	0.06	0.02	mg/L	May-30-11	May-30-11	
Nitrogen, Nitrate+Nitrite as N	0.07	0.01	mg/L	Jun-01-11	Jun-01-11	

**SAMPLE DATA**



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**PROJECT** Creek Monitoring

**WORK ORDER #** K1E1046  
**REPORTED** Jun-06-11

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
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**General Parameters, Continued**

**Shuswap River Picnic Site (K1E1046-05) Matrix: Water Sampled: May-29-11, Continued**

Nitrogen, Nitrate as N	0.07	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Nitrite as N	< 0.01	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Total Kjeldahl	0.20	0.05	mg/L	May-30-11	Jun-03-11	
Nitrogen, Total	0.27	0.05	mg/L	Jun-01-11	Jun-03-11	
Phosphorus, Total	0.12	0.01	mg/L	May-30-11	Jun-02-11	
Phosphorus, Dissolved	< 0.01	0.01	mg/L	May-30-11	Jun-03-11	
Turbidity	5.5	0.1	NTU	May-31-11	May-31-11	

**Ferry Creek (K1E1046-06) Matrix: Water Sampled: May-29-11**

Nitrogen, Ammonia as N	0.05	0.02	mg/L	May-30-11	May-30-11	
Nitrogen, Nitrate+Nitrite as N	< 0.01	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Nitrate as N	< 0.01	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Nitrite as N	< 0.01	0.01	mg/L	Jun-01-11	Jun-01-11	
Nitrogen, Total Kjeldahl	0.25	0.05	mg/L	May-30-11	Jun-03-11	
Nitrogen, Total	0.25	0.05	mg/L	Jun-01-11	Jun-03-11	
Phosphorus, Total	0.03	0.01	mg/L	May-30-11	Jun-02-11	
Phosphorus, Dissolved	< 0.01	0.01	mg/L	May-30-11	Jun-03-11	
Turbidity	4.2	0.1	NTU	May-31-11	May-31-11	

**Microbiological Parameters**

**North Fork Cherry Creek (K1E1046-01) Matrix: Water Sampled: May-29-11 13:55**

E. coli	27	1	CFU/100mL	May-30-11	May-31-11	
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**South Fork Cherry Creek (K1E1046-02) Matrix: Water Sampled: May-29-11 14:35**

E. coli	< 1	1	CFU/100mL	May-30-11	May-31-11	
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**North Fork At Junction (K1E1046-03) Matrix: Water Sampled: May-29-11 13:20**

E. coli	23	1	CFU/100mL	May-30-11	May-31-11	
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**South Fork at Junction (K1E1046-04) Matrix: Water Sampled: May-29-11 13:30**

E. coli	1	1	CFU/100mL	May-30-11	May-31-11	
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**Shuswap River Picnic Site (K1E1046-05) Matrix: Water Sampled: May-29-11**

E. coli	7	1	CFU/100mL	May-30-11	May-31-11	
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**Ferry Creek (K1E1046-06) Matrix: Water Sampled: May-29-11**

E. coli	6	1	CFU/100mL	May-30-11	May-31-11	
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**ANALYSIS / REPORT INFORMATION**

**CLIENT** Cherry Ridge Management  
**PROJECT** Creek Monitoring

**WORK ORDER #** K1E1046  
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<b>Analysis Description</b>	<b>Method Reference</b> (* = modified from)	<b>Location</b>
Ammonia-N	APHA 4500-NH3 G	KEL
Nitrate by IC	APHA 4110 B	KEL
Nitrite by IC	APHA 4110 B	KEL
Total Nitrogen (TKN + NO3-N+NO2-N)	Calc	KEL
Total Kjeldahl Nitrogen	EPA 351.2	KEL
Phosphorus, Total Dissolved	EPA 351.2	KEL
Phosphorus, Total (colour)	EPA 351.2	KEL
Turbidity	APHA 2130 B	KEL
E. coli (Membrane Filtration)	APHA 9222	KEL