CERTIFICATE OF ANALYSIS

REPORTED TO	Beaver Falls Waterworks District Box 138 Montrose, BC V0G 1P0	**TEL** **FAX**	1(250) 367-0255 (250) 367-0136
ATTENTION	Shirley Fletcher	**WORK ORDER**	4010960
PO NUMBER		**RECEIVED / TEMP**	Jan-22-14 08:00 / 5°C
PROJECT	Drinking Water	**REPORTED**	Jan-29-14
PROJECT INFO		**COC NUMBER**	05823

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.

Issued By: **Jennifer Shanko, AScT**
Administration Coordinator

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

Locations:

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#102 3677 Highway 97N
Kelowna, BC V1X 5C3
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17225 109 Avenue
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Tel: 780-489-9100 Fax: 780-489-9700

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ANALYSIS INFORMATION

REPORTED TO	Beaver Falls Waterworks District	**WORK ORDER**	4010960
PROJECT	Drinking Water	**REPORTED**	Jan-29-14

Analysis Description	Method Reference (* = modified from) Preparation	Analysis	Location
Alkalinity, total	N/A	APHA 2320 B	Kelowna
Chloride in Water by IC	N/A	APHA 4110 B	Kelowna
Colour, True at 410 nm	N/A	APHA 2120 C *	Kelowna
Conductivity in Water	N/A	APHA 2510 B	Kelowna
Cyanide, Total in Liquids	APHA 4500-CN C	APHA 4500-CN E	Kelowna
E. coli (by CCA)	N/A	APHA 9222 *	Kelowna
Fluoride in Water by IC	N/A	APHA 4110 B	Kelowna
Hardness as CaCO3 (CALC)	N/A	APHA 2340 B	Richmond
Nitrate-N in Water by IC	N/A	APHA 4110 B	Kelowna
Nitrite-N in Water by IC	N/A	APHA 4110 B	Kelowna
pH in Water	N/A	APHA 4500-H+ B	Kelowna
Sulfate in Water by IC	N/A	APHA 4110 B	Kelowna
Total Coliforms (by CCA)	N/A	APHA 9222 *	Kelowna
Total Recoverable Metals	APHA 3030E *	APHA 3125 B	Richmond
Transmissivity at 254 nm	N/A	APHA 5910 B	Kelowna
Turbidity	N/A	APHA 2130 B	Kelowna

Note: The numbers in brackets represent the year that the method was published/approved

Method Reference Descriptions:

APHA	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

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-related guideline)
%	Percent W/W
CFU/100mL	Colony Forming Units per 100 mL
Color Unit	Colour referenced against a platinum cobalt standard
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
pH units	pH < 7 = acidic, ph > 7 = basic
uS/cm	Microsiemens per centimeter

CARO ANALYTICAL SERVICES

SAMPLE ANALYTICAL DATA

REPORTED TO Beaver Falls Waterworks District
PROJECT Drinking Water

WORK ORDER 4010960
REPORTED Jan-29-14

Analyte	Result / *Recovery*	Canadian DWQ Guideline	MRL / *Limit*	Units	Prepared	Analyzed	Notes
Sample ID: Well #2 (4010960-01) [Water] Sampled: Jan-21-14 09:30							
Anions							
Alkalinity, Total as CaCO3	**101**	No Guideline	1	mg/L	N/A	Jan-22-14	
Chloride	**22.5**	AO ≤ 250	0.10	mg/L	N/A	Jan-22-14	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	N/A	Jan-22-14	
Nitrogen, Nitrate as N	**1.68**	MAC = 10	0.010	mg/L	N/A	Jan-22-14	
Nitrogen, Nitrite as N	< 0.010	MAC = 1	0.010	mg/L	N/A	Jan-22-14	
Sulfate	**17.0**	AO ≤ 500	1.0	mg/L	N/A	Jan-22-14	
General Parameters							
Colour, True	< 5	AO ≤ 15	5	Color Unit	N/A	Jan-23-14	
Conductivity (EC)	**325**	No Guideline	2	uS/cm	N/A	Jan-22-14	
Cyanide, total	< 0.010	MAC = 0.2	0.010	mg/L	Jan-28-14	Jan-28-14	
pH	**7.69**	AO = 6.5 - 8.5	0.01	pH units	N/A	Jan-22-14	
Turbidity	**0.1**	See Guidelines	0.1	NTU	N/A	Jan-22-14	
UV Transmittance @ 254nm	**97.6**	No Guideline	0.1	%	N/A	Jan-24-14	
Calculated Parameters							
Hardness, Total (Total as CaCO3)	**116**	No Guideline	5.0	mg/L	N/A	N/A	
Solids, Total Dissolved	**164**	No Guideline	2.0	mg/L	N/A	N/A	
Total Recoverable Metals							
Aluminum, total	< 0.05	AO ≤ 0.1	0.05	mg/L	Jan-23-14	Jan-24-14	
Antimony, total	< 0.001	MAC = 0.006	0.001	mg/L	Jan-23-14	Jan-24-14	
Arsenic, total	< 0.005	MAC = 0.01	0.005	mg/L	Jan-23-14	Jan-24-14	
Barium, total	< 0.05	MAC = 1	0.05	mg/L	Jan-23-14	Jan-24-14	
Beryllium, total	< 0.001	No Guideline	0.001	mg/L	Jan-23-14	Jan-24-14	
Boron, total	< 0.04	MAC = 5	0.04	mg/L	Jan-23-14	Jan-24-14	
Cadmium, total	< 0.0001	MAC = 0.005	0.0001	mg/L	Jan-23-14	Jan-24-14	
Calcium, total	**38.4**	No Guideline	2.0	mg/L	Jan-23-14	Jan-24-14	
Chromium, total	< 0.005	MAC = 0.05	0.005	mg/L	Jan-23-14	Jan-24-14	
Cobalt, total	< 0.0005	No Guideline	0.0005	mg/L	Jan-23-14	Jan-24-14	
Copper, total	< 0.002	AO ≤ 1	0.002	mg/L	Jan-23-14	Jan-24-14	
Iron, total	< 0.10	AO ≤ 0.3	0.10	mg/L	Jan-23-14	Jan-24-14	
Lead, total	< 0.001	MAC = 0.01	0.001	mg/L	Jan-23-14	Jan-24-14	
Magnesium, total	**5.0**	No Guideline	0.1	mg/L	Jan-23-14	Jan-24-14	
Manganese, total	< 0.002	AO ≤ 0.05	0.002	mg/L	Jan-23-14	Jan-24-14	
Mercury, total	< 0.0002	MAC = 0.001	0.0002	mg/L	Jan-23-14	Jan-24-14	
Molybdenum, total	< 0.001	No Guideline	0.001	mg/L	Jan-23-14	Jan-24-14	
Nickel, total	< 0.002	No Guideline	0.002	mg/L	Jan-23-14	Jan-24-14	
Phosphorus, total	< 0.2	No Guideline	0.2	mg/L	Jan-23-14	Jan-24-14	
Potassium, total	**1.9**	No Guideline	0.2	mg/L	Jan-23-14	Jan-24-14	
Selenium, total	< 0.005	MAC = 0.01	0.005	mg/L	Jan-23-14	Jan-24-14	
Silicon, total	**11**	No Guideline	5	mg/L	Jan-23-14	Jan-24-14	
Silver, total	< 0.0005	No Guideline	0.0005	mg/L	Jan-23-14	Jan-24-14	
Sodium, total	**10.3**	AO ≤ 200	0.2	mg/L	Jan-23-14	Jan-24-14	
Uranium, total	**0.0002**	MAC = 0.02	0.0002	mg/L	Jan-23-14	Jan-24-14	
Vanadium, total	< 0.01	No Guideline	0.01	mg/L	Jan-23-14	Jan-24-14	

SAMPLE ANALYTICAL DATA

REPORTED TO Beaver Falls Waterworks District
PROJECT Drinking Water

WORK ORDER 4010960
REPORTED Jan-29-14

Analyte	Result / *Recovery*	Canadian DWQ Guideline	MRL / *Limit*	Units	Prepared	Analyzed	Notes
Sample ID: Well #2 (4010960-01) [Water] Sampled: Jan-21-14 09:30, Continued							
Total Recoverable Metals, Continued							
Zinc, total	< 0.04	AO ≤ 5	0.04	mg/L	Jan-23-14	Jan-24-14	
Microbiological Parameters							
Coliforms, Total	< 1	MAC < 1	1	CFU/100mL	Jan-22-14	Jan-23-14	
E. coli	< 1	MAC < 1	1	CFU/100mL	Jan-22-14	Jan-23-14	