CERTIFICATE OF ANALYSIS

REPORTED TO	Mid Shuswap Lumby Water Stewards 1631 Mable Lake Rd Lumby, BC V0E 2G6		
ATTENTION	Russ Collins	**WORK ORDER**	25K1850
PO NUMBER	RDNO Master Bid	**RECEIVED / TEMP**	2025-11-17 14:22 / 8.7°C
PROJECT	Analytical Testing	**REPORTED**	2025-11-24 15:28
PROJECT INFO		**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/IEC 17025:2017 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.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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TEST RESULTS

REPORTED TO	Mid Shuswap Lumby Water Stewards	**WORK ORDER**	25K1850
PROJECT	Analytical Testing	**REPORTED**	2025-11-24 15:28

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
BS17 (25K1850-01) | Matrix: Water | Sampled: 2025-11-17 10:00						FILT, PRES
Anions						
Nitrate (as N)	**0.011**	MAC = 10	0.010	mg/L	2025-11-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-11-18	
Calculated Parameters						
Nitrate+Nitrite (as N)	**0.0114**	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	**0.308**	N/A	0.0500	mg/L	N/A	
General Parameters						
Ammonia, Total (as N)	< 0.050	None Required	0.050	mg/L	2025-11-18	
Nitrogen, Total Kjeldahl	**0.297**	N/A	0.050	mg/L	2025-11-22	
Phosphorus, Total (as P)	**0.0948**	N/A	0.0050	mg/L	2025-11-24	
Phosphorus, Total Dissolved	**0.0623**	N/A	0.0050	mg/L	2025-11-24	
Turbidity	**1.24**	OG < 1	0.10	NTU	2025-11-18	
Microbiological Parameters						
Coliforms, Total (Q-Tray)	**921**	MAC = 0	1	MPN/100 mL	2025-11-18	
Coliforms, Fecal (Q-Tray)	**218**	N/A	1	MPN/100 mL	2025-11-18	
E. coli (Q-Tray)	**112**	MAC = 0	1	MPN/100 mL	2025-11-18	
BS13 (25K1850-02) | Matrix: Water | Sampled: 2025-11-17 10:30						FILT, PRES
Anions						
Nitrate (as N)	**0.013**	MAC = 10	0.010	mg/L	2025-11-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-11-18	
Calculated Parameters						
Nitrate+Nitrite (as N)	**0.0131**	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	**0.436**	N/A	0.0500	mg/L	N/A	
General Parameters						
Ammonia, Total (as N)	< 0.050	None Required	0.050	mg/L	2025-11-18	
Nitrogen, Total Kjeldahl	**0.423**	N/A	0.050	mg/L	2025-11-22	
Phosphorus, Total (as P)	**0.108**	N/A	0.0050	mg/L	2025-11-24	
Phosphorus, Total Dissolved	**0.0290**	N/A	0.0050	mg/L	2025-11-24	
Turbidity	**5.94**	OG < 1	0.10	NTU	2025-11-18	
Microbiological Parameters						
Coliforms, Total (Q-Tray)	**3010**	MAC = 0	1	MPN/100 mL	2025-11-18	
Coliforms, Fecal (Q-Tray)	**50**	N/A	1	MPN/100 mL	2025-11-18	
E. coli (Q-Tray)	**22**	MAC = 0	1	MPN/100 mL	2025-11-18	
CR17 (25K1850-03) | Matrix: Water | Sampled: 2025-11-17 11:00						FILT, PRES

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TEST RESULTS

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PROJECT	Analytical Testing	**REPORTED**	2025-11-24 15:28

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
CR17 (25K1850-03) | Matrix: Water | Sampled: 2025-11-17 11:00, Continued						FILT, PRES
Anions						
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-11-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-11-18	
Calculated Parameters						
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	**0.193**	N/A	0.0500	mg/L	N/A	
General Parameters						
Ammonia, Total (as N)	**0.143**	None Required	0.050	mg/L	2025-11-18	
Nitrogen, Total Kjeldahl	**0.193**	N/A	0.050	mg/L	2025-11-22	
Phosphorus, Total (as P)	**0.0287**	N/A	0.0050	mg/L	2025-11-24	
Phosphorus, Total Dissolved	**0.0160**	N/A	0.0050	mg/L	2025-11-24	
Turbidity	**0.25**	OG < 1	0.10	NTU	2025-11-18	
Microbiological Parameters						
Coliforms, Total (Q-Tray)	**326**	MAC = 0	1	MPN/100 mL	2025-11-18	
Coliforms, Fecal (Q-Tray)	**20**	N/A	1	MPN/100 mL	2025-11-18	
E. coli (Q-Tray)	**16**	MAC = 0	1	MPN/100 mL	2025-11-18	
CR15 (25K1850-04) | Matrix: Water | Sampled: 2025-11-17 11:30						FILT, PRES
Anions						
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-11-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-11-18	
Calculated Parameters						
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	**0.0880**	N/A	0.0500	mg/L	N/A	
General Parameters						
Ammonia, Total (as N)	< 0.050	None Required	0.050	mg/L	2025-11-18	
Nitrogen, Total Kjeldahl	**0.088**	N/A	0.050	mg/L	2025-11-22	
Phosphorus, Total (as P)	**0.0189**	N/A	0.0050	mg/L	2025-11-24	
Phosphorus, Total Dissolved	< 0.0050	N/A	0.0050	mg/L	2025-11-24	
Turbidity	**0.28**	OG < 1	0.10	NTU	2025-11-18	
Microbiological Parameters						
Coliforms, Total (Q-Tray)	**1730**	MAC = 0	1	MPN/100 mL	2025-11-18	
Coliforms, Fecal (Q-Tray)	**57**	N/A	1	MPN/100 mL	2025-11-18	
E. coli (Q-Tray)	**50**	MAC = 0	1	MPN/100 mL	2025-11-18	
CR14 (25K1850-05) | Matrix: Water | Sampled: 2025-11-17 11:50						FILT, PRES

TEST RESULTS

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PROJECT	Analytical Testing	**REPORTED**	2025-11-24 15:28

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
CR14 (25K1850-05) | Matrix: Water | Sampled: 2025-11-17 11:50, Continued						FILT, PRES
Anions						
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-11-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-11-18	
Calculated Parameters						
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	
General Parameters						
Ammonia, Total (as N)	< 0.050	None Required	0.050	mg/L	2025-11-18	
Nitrogen, Total Kjeldahl	< 0.050	N/A	0.050	mg/L	2025-11-22	
Phosphorus, Total (as P)	**0.0179**	N/A	0.0050	mg/L	2025-11-24	
Phosphorus, Total Dissolved	< 0.0050	N/A	0.0050	mg/L	2025-11-24	
Turbidity	**0.24**	OG < 1	0.10	NTU	2025-11-18	
Microbiological Parameters						
Coliforms, Total (Q-Tray)	**980**	MAC = 0	1	MPN/100 mL	2025-11-18	
Coliforms, Fecal (Q-Tray)	**26**	N/A	1	MPN/100 mL	2025-11-18	
E. coli (Q-Tray)	**25**	MAC = 0	1	MPN/100 mL	2025-11-18	
CR13 (25K1850-06) | Matrix: Water | Sampled: 2025-11-17 12:15						FILT, PRES
Anions						
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-11-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-11-18	
Calculated Parameters						
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	**0.424**	N/A	0.0500	mg/L	N/A	
General Parameters						
Ammonia, Total (as N)	< 0.050	None Required	0.050	mg/L	2025-11-18	
Nitrogen, Total Kjeldahl	**0.424**	N/A	0.050	mg/L	2025-11-22	
Phosphorus, Total (as P)	**0.0204**	N/A	0.0050	mg/L	2025-11-24	
Phosphorus, Total Dissolved	**0.0148**	N/A	0.0050	mg/L	2025-11-24	
Turbidity	**0.32**	OG < 1	0.10	NTU	2025-11-18	
Microbiological Parameters						
Coliforms, Total (Q-Tray)	**575**	MAC = 0	1	MPN/100 mL	2025-11-18	
Coliforms, Fecal (Q-Tray)	**21**	N/A	1	MPN/100 mL	2025-11-18	
E. coli (Q-Tray)	**18**	MAC = 0	1	MPN/100 mL	2025-11-18	
BS00 (25K1850-07) | Matrix: Water | Sampled: 2025-11-17 12:50						FILT, PRES

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TEST RESULTS

REPORTED TO	Mid Shuswap Lumby Water Stewards	**WORK ORDER**	25K1850
PROJECT	Analytical Testing	**REPORTED**	2025-11-24 15:28

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
BS00 (25K1850-07) | Matrix: Water | Sampled: 2025-11-17 12:50, Continued						FILT, PRES
Anions						
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-11-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-11-18	
Calculated Parameters						
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	**0.634**	N/A	0.0500	mg/L	N/A	
General Parameters						
Ammonia, Total (as N)	**0.063**	None Required	0.050	mg/L	2025-11-18	
Nitrogen, Total Kjeldahl	**0.634**	N/A	0.050	mg/L	2025-11-22	
Phosphorus, Total (as P)	**0.122**	N/A	0.0050	mg/L	2025-11-24	
Phosphorus, Total Dissolved	**0.0861**	N/A	0.0050	mg/L	2025-11-24	
Turbidity	**1.47**	OG < 1	0.10	NTU	2025-11-18	
Microbiological Parameters						
Coliforms, Total (Q-Tray)	**2420**	MAC = 0	1	MPN/100 mL	2025-11-18	
Coliforms, Fecal (Q-Tray)	**18**	N/A	1	MPN/100 mL	2025-11-18	
E. coli (Q-Tray)	**13**	MAC = 0	1	MPN/100 mL	2025-11-18	
CR00 (25K1850-08) | Matrix: Water | Sampled: 2025-11-17 12:35						FILT, PRES
Anions						
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-11-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-11-18	
Calculated Parameters						
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L	N/A	
Nitrogen, Total	**0.163**	N/A	0.0500	mg/L	N/A	
General Parameters						
Ammonia, Total (as N)	**0.054**	None Required	0.050	mg/L	2025-11-18	
Nitrogen, Total Kjeldahl	**0.163**	N/A	0.050	mg/L	2025-11-22	
Phosphorus, Total (as P)	**0.0224**	N/A	0.0050	mg/L	2025-11-24	
Phosphorus, Total Dissolved	**0.0138**	N/A	0.0050	mg/L	2025-11-24	
Turbidity	**0.80**	OG < 1	0.10	NTU	2025-11-18	
Microbiological Parameters						
Coliforms, Total (Q-Tray)	**770**	MAC = 0	1	MPN/100 mL	2025-11-18	
Coliforms, Fecal (Q-Tray)	**20**	N/A	1	MPN/100 mL	2025-11-18	
E. coli (Q-Tray)	**20**	MAC = 0	1	MPN/100 mL	2025-11-18	

TEST RESULTS

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PROJECT	Analytical Testing	**REPORTED**	2025-11-24 15:28

Sample Qualifiers:

FILT	The sample has been filtered for PDP in the laboratory. Results may not reflect conditions at the time of sampling.
PRES	Sample has been preserved for PDP in the laboratory and the holding time has been extended.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Mid Shuswap Lumby Water Stewards	**WORK ORDER**	25K1850
PROJECT	Analytical Testing	**REPORTED**	2025-11-24 15:28

Analysis Description	Method Ref.	Technique	Accredited	Location
Ammonia, Total in Water	SM 4500-NH3 G* (2021)	Automated Colorimetry (Phenate)	✓	Kelowna
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Coliforms, Fecal in Water	SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
Coliforms, Total in Water	SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
E. coli in Water	SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
Nitrogen, Total Kjeldahl in Water	SM 4500-Norg D* (2021)	Block Digestion and Flow Injection Analysis	✓	Kelowna
Phosphorus, Total Dissolved in Water	SM 4500-P B.5* (2011) / SM 4500-P F (2021)	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	✓	Kelowna
Phosphorus, Total in Water	SM 4500-P B.5* (2011) / SM 4500-P F (2021)	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	✓	Kelowna
Turbidity in Water	SM 2130 B (2020)	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
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
MPN/100 mL	Most Probable Number per 100 millilitres
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
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)

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	Mid Shuswap Lumby Water Stewards	**WORK ORDER**	25K1850
PROJECT	Analytical Testing	**REPORTED**	2025-11-24 15:28

General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. 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: hhannaoui@caro.ca

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