# CERTIFICATE OF ANALYSIS

| | | | |
|---|---|---|---|
| **REPORTED TO** | Cherry Ridge Management<br>158 North Fork Road<br>Cherryville, BC V0E 2G3 | | |
| **ATTENTION** | Melanie Staker | **WORK ORDER** | 24B1960 |
| **PO NUMBER** | Cherry Ridge Management Creek Monitoring | **RECEIVED / TEMP** | 2024-02-20 09:12 / 1.7°C |
| **PROJECT** | Creek Monitoring | **REPORTED** | 2024-02-27 10:06 |
| **PROJECT INFO** | | **COC NUMBER** | No Number |

**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 TeamCaro@caro.ca*

**Authorized By:**

Team CARO
Client Service Representative

# TEST RESULTS

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| **REPORTED TO** | Cherry Ridge Management | **WORK ORDER** | 24B1960 |
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| Analyte | Result | Guideline | RL | Units | Analyzed | Qualifier |
|---|---|---|---|---|---|---|
| **Sugar Lake Rd. 1 km (24B1960-01) \| Matrix: Water \| Sampled: 2024-02-19 15:20** | | | | | | F1, F3, FILT, PRES |
| ***Anions*** | | | | | | |
| Chloride | **34.4** | AO ≤ 250 | 0.10 | mg/L | 2024-02-22 | |
| Nitrate (as N) | **4.72** | MAC = 10 | 0.010 | mg/L | 2024-02-22 | |
| Nitrite (as N) | **0.031** | MAC = 1 | 0.010 | mg/L | 2024-02-22 | |
| Sulfate | **33.9** | AO ≤ 500 | 1.0 | mg/L | 2024-02-22 | |
| ***Calculated Parameters*** | | | | | | |
| Nitrate+Nitrite (as N) | **4.75** | N/A | 0.0100 | mg/L | N/A | |
| Nitrogen, Total | **5.23** | N/A | 0.0500 | mg/L | N/A | |
| ***Dissolved Metals*** | | | | | | |
| Aluminum, dissolved | < 0.0050 | N/A | 0.0050 | mg/L | 2024-02-26 | |
| ***General Parameters*** | | | | | | |
| Conductivity (EC) | **724** | N/A | 2.0 | µS/cm | 2024-02-21 | |
| Nitrogen, Total Kjeldahl | **0.484** | N/A | 0.050 | mg/L | 2024-02-22 | |
| pH | **8.14** | 7.0-10.5 | 0.10 | pH units | 2024-02-21 | HT2 |
| Phosphorus, Total (as P) | **0.138** | N/A | 0.0050 | mg/L | 2024-02-22 | |
| Phosphorus, Total Dissolved | **0.131** | N/A | 0.0050 | mg/L | 2024-02-22 | |
| Turbidity | **0.92** | OG < 1 | 0.10 | NTU | 2024-02-21 | |
| ***Microbiological Parameters*** | | | | | | |
| Coliforms, Total (Q-Tray) | **> 2420** | MAC = 0 | 1 | MPN/100 mL | 2024-02-20 | |
| E. coli (Q-Tray) | **> 2420** | MAC = 0 | 1 | MPN/100 mL | 2024-02-20 | |

**Sample Qualifiers:**

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|---|---|
| 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. |
| F3 | Results may be biased low due to sub-sampling from general container. |
| 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, TP, TKN in the laboratory and the holding time has been extended. |

# APPENDIX 1: SUPPORTING INFORMATION

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| Analysis Description | Method Ref. | Technique | Accredited | Location |
|---|---|---|---|---|
| Anions in Water | SM 4110 B (2020) | Ion Chromatography | ✓ | Kelowna |
| Coliforms, Total in Water | SM 9223 (2016) | Quanti-Tray / Enzyme Substrate Endo Agar | ✓ | Kelowna |
| Conductivity in Water | SM 2510 B (2021) | 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 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 |
| pH in Water | SM 4500-H+ B (2021) | Electrometry | ✓ | 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 |
| > | Greater than the specified Result |
| AO | Aesthetic Objective |
| 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) |
| pH units | pH < 7 = acidic, ph > 7 = basic |
| 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, September 2022)

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

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