



CERTIFICATE OF ANALYSIS

REPORTED TO Sutherland Creek Waterworks District
Box 446
Christina Lake, BC V0H 1E0

ATTENTION Ulrich Werner

PO NUMBER

PROJECT Analytical

PROJECT INFO

WORK ORDER 21F2273

RECEIVED / TEMP 2021-06-15 08:10 / 13.9°C

REPORTED 2021-06-22 08:32

COC NUMBER B099655

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.

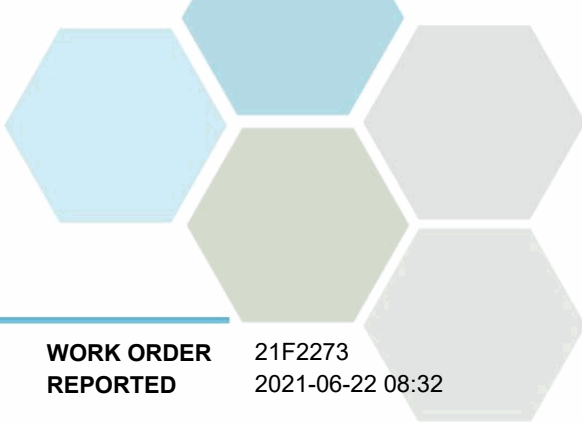
If you have any questions or concerns, please contact me at teamcaro@caro.ca

Authorized By:

Team CARO
Client Service Representative

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TEST RESULTS

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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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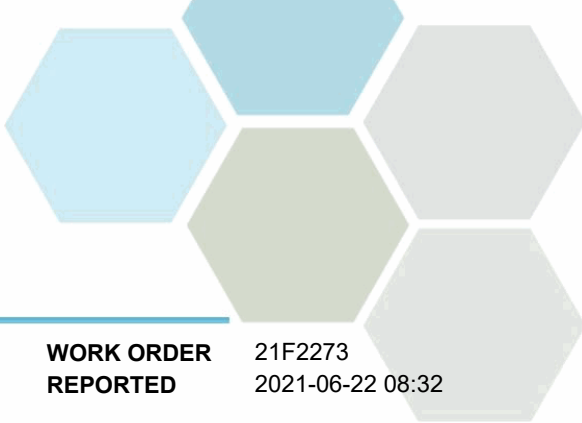
2040 Fife Rd. (21F2273-01) | Matrix: Water | Sampled: 2021-06-14 06:30

Calculated Parameters

Hardness, Total (as CaCO3)	71.0	None Required	0.500	mg/L	N/A	
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Total Metals

Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2021-06-19	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2021-06-19	
Arsenic, total	< 0.00050	MAC = 0.01	0.00050	mg/L	2021-06-19	
Barium, total	0.0098	MAC = 2	0.0050	mg/L	2021-06-19	
Beryllium, total	< 0.00010	N/A	0.00010	mg/L	2021-06-19	
Bismuth, total	< 0.00010	N/A	0.00010	mg/L	2021-06-19	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2021-06-19	
Cadmium, total	0.000028	MAC = 0.005	0.000010	mg/L	2021-06-19	
Calcium, total	19.2	None Required	0.20	mg/L	2021-06-19	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2021-06-19	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2021-06-19	
Copper, total	0.00496	MAC = 2	0.00040	mg/L	2021-06-19	
Iron, total	< 0.010	AO ≤ 0.3	0.010	mg/L	2021-06-19	
Lead, total	0.00028	MAC = 0.005	0.00020	mg/L	2021-06-19	
Lithium, total	0.00133	N/A	0.00010	mg/L	2021-06-19	
Magnesium, total	5.57	None Required	0.010	mg/L	2021-06-19	
Manganese, total	< 0.00020	MAC = 0.12	0.00020	mg/L	2021-06-19	
Molybdenum, total	0.00222	N/A	0.00010	mg/L	2021-06-19	
Nickel, total	0.00063	N/A	0.00040	mg/L	2021-06-19	
Phosphorus, total	< 0.050	N/A	0.050	mg/L	2021-06-19	
Potassium, total	1.67	N/A	0.10	mg/L	2021-06-19	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2021-06-19	
Silicon, total	12.0	N/A	1.0	mg/L	2021-06-19	
Silver, total	< 0.000050	None Required	0.000050	mg/L	2021-06-19	
Sodium, total	3.80	AO ≤ 200	0.10	mg/L	2021-06-19	
Strontium, total	0.132	7	0.0010	mg/L	2021-06-19	
Sulfur, total	< 3.0	N/A	3.0	mg/L	2021-06-19	
Tellurium, total	< 0.00050	N/A	0.00050	mg/L	2021-06-19	
Thallium, total	< 0.000020	N/A	0.000020	mg/L	2021-06-19	
Thorium, total	< 0.00010	N/A	0.00010	mg/L	2021-06-19	
Tin, total	0.00023	N/A	0.00020	mg/L	2021-06-19	
Titanium, total	< 0.0050	N/A	0.0050	mg/L	2021-06-19	
Tungsten, total	< 0.0010	N/A	0.0010	mg/L	2021-06-19	
Uranium, total	0.000813	MAC = 0.02	0.000020	mg/L	2021-06-19	
Vanadium, total	0.0055	N/A	0.0010	mg/L	2021-06-19	
Zinc, total	0.0107	AO ≤ 5	0.0040	mg/L	2021-06-19	
Zirconium, total	< 0.00010	N/A	0.00010	mg/L	2021-06-19	



APPENDIX 1: SUPPORTING INFORMATION

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Analysis Description	Method Ref.	Technique	Accredited	Location
Hardness in Water	SM 2340 B* (2017)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

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
AO	Aesthetic Objective
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
OG	Operational Guideline (treated water)
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 \(Health Canada, June 2019\)](#)

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

General Comments:

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 or once samples expire, whichever comes first. Longer hold is possible if agreed to in writing. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. 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: teamcaro@caro.ca

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.