



Annual Report of Monitoring Balfour Water System

Developed in accordance with the
British Columbia Drinking Water Protection Act

BALFOUR WATER SYSTEM	
Period of Monitoring Covered by this Report:	January 1 - December 31, 2023
Interior Health Permit to Operate Facility Number:	0210655
EOCP Classification:	WD-II / WT-II
IH Permit:	Drinking Water System 15 - 300 Connections
Location of Water Supply System:	Balfour, BC

Contact Information:

Regional District of Central Kootenay
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1. Introduction

Balfour is a suburban community located 32 kilometers northeast of the city of Nelson within the Regional District of Central Kootenay (RDCK) Electoral Area E. The water system in Balfour is the second largest RDCK operated system with 265 active metered service connections. Kootenay Lake provides the water source, with a wet well intake located 215 meters from shore.

As part of the British Columbia Provincial *Drinking Water Protection Act (2001)* and *Drinking Water Protection Regulation (2003)* an annual water system report to water users is required. This annual report summarizes information collected and recorded throughout the reporting period, and details additional relevant information to the water system.

2. Water Treatment Objectives

The provincial technical document *Drinking Water Treatment objectives (Microbiological) for Surface Water Supplies in British Columbia (2012)* provides performance targets for water suppliers to ensure the provision of biologically safe drinking water. Interior Health supports water suppliers to meet these objectives as risk to human health is substantially reduced. The general treatment objectives are:

- 4-log (99.99%) removal/inactivation of viruses
- 3-log (99.9%) removal/inactivation of *Giardia* and *Cryptosporidium* (oocysts)
- Two separate treatment processes (multi-barrier) for surface water supplies
- Turbidity less than 1 NTU (Nephelometric Turbidity Unit)
- Zero total and fecal coliforms (*E. coli*)

The Balfour water treatment plant provides biologically safe drinking water to its users and achieves the above listed treatment objectives through various system components installed and maintained at the water treatment plant.

3. Water System Overview

Kootenay Lake provides the source water for the Balfour water system, which is delivered to the water treatment plant via a series of pumps. Treatment begins with chlorination at the pump-house prior to the water being delivered to the treatment plant. At the treatment plant (WTP), water initially passes through media and cartridge filters to reduce turbidity (suspended sediment). Following this are ultraviolet (UV) light disinfection units for the treatment of microbiological components. A final chlorination injection provides the necessary treatment residual to the distribution system.

Due to the unsustainable cost of disposable cartridge filters, the RDCK made an application to remove the 1 micron absolute filters in 2014. The application was approved by Interior Health with conditions that include the requirement for *“Average daily turbidity levels measured at equal intervals (at least every four hours) immediately before the disinfectant is applied are around 1 NTU, but do not exceed 5 NTU for more than two days in a 12-month period.”*

The RDCK has brought the Balfour Water Treatment Plant into the existing central SCADA (supervisory, control and data acquisition) system located at the Nelson office. As this offers continuous monitoring and data logging with alarm notifications sent should parameters for turbidity not be met, the Balfour water system is in full compliance with Interior Health’s turbidity monitoring requirements.

4. Monitoring

The Balfour water system includes monitoring for bacteriological components (total/fecal coliforms), turbidity, chlorine residual (free and total), consumption, and chemical constituents.

4.1 Bacteriological

Sampling is done bi-weekly from various locations within the distribution system. Tests for total and fecal coliforms are performed in accordance with the methods outlined in the *Standard Methods for the Examination of Water and Wastewater (2005)*. Colony forming units (cfu) per 100 ml are determined for each sample. There were no adverse sample results in 2023.

4.2 Turbidity

Turbidity is measured on the raw, post media filters, and post cartridge filters using both in-line and handheld turbidity meters. In-line instruments are cross-referenced with the handheld meter to ensure accuracy. Figure 1 shows turbidity levels measured on raw and treated water using a handheld turbidity meter. Turbidity levels after the treatment process were consistently below the treatment objective of less than 1 NTU for the reporting period.

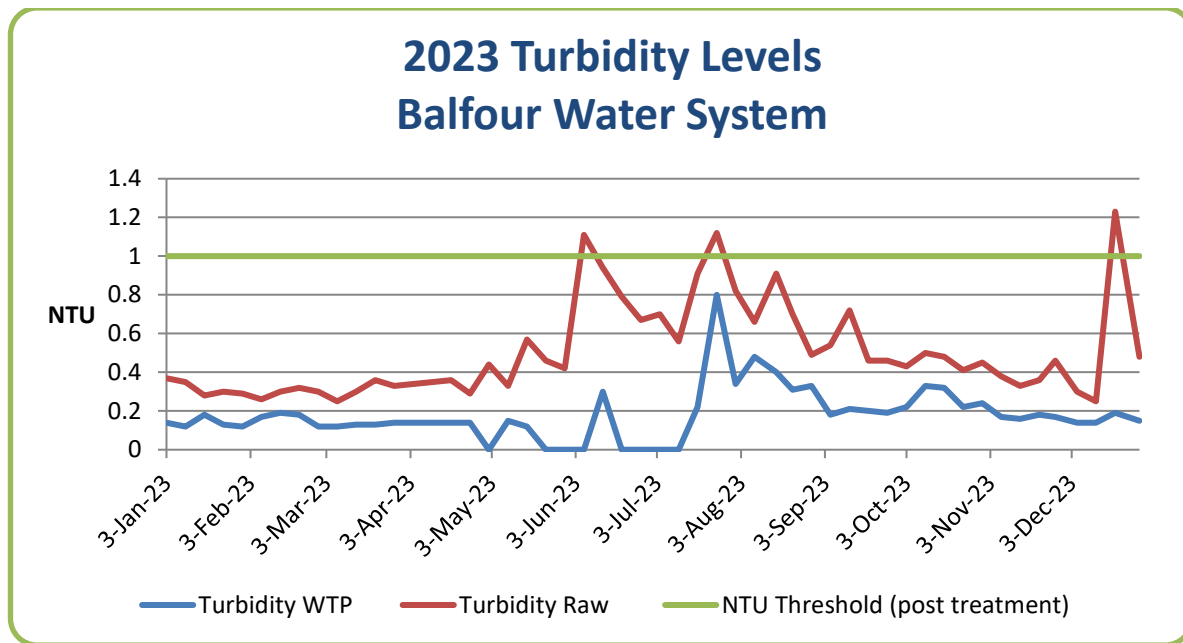


Figure 1 – Turbidity Levels for Reporting Period

4.3 Chlorine Residual

Chlorine disinfection contact time (CT) is primarily achieved through the transmission pipe from the lake pump house up to the water treatment plant. Should raw water turbidity exceed 1 NTU, CT is then achieved from the transmission piping to reservoir and the reservoir itself. Chlorine residual levels are measured with an online chlorine analyzer at the pump house and post treatment (at the WTP after final chlorine injection). Residual levels are also measured using a handheld chlorine meter at the pump-house, post treatment, and to the distribution system (post reservoir). Chlorine residual targets for the Balfour water system are a minimum of 0.7 mg/l post treatment and a minimum of 0.20 mg/l in all areas of the distribution system. Figure 2 shows chlorine residual levels post treatment and post reservoir. In 2023, there were three recorded days of raw water turbidity exceeding 1 NTU (June 6, July 25 and December 19) which could impact chlorine disinfection. When raw water turbidity exceeds 1 NTU, a minimum chlorine residual of 0.5 mg/l post reservoir is required per Interior Health construction permit conditions.

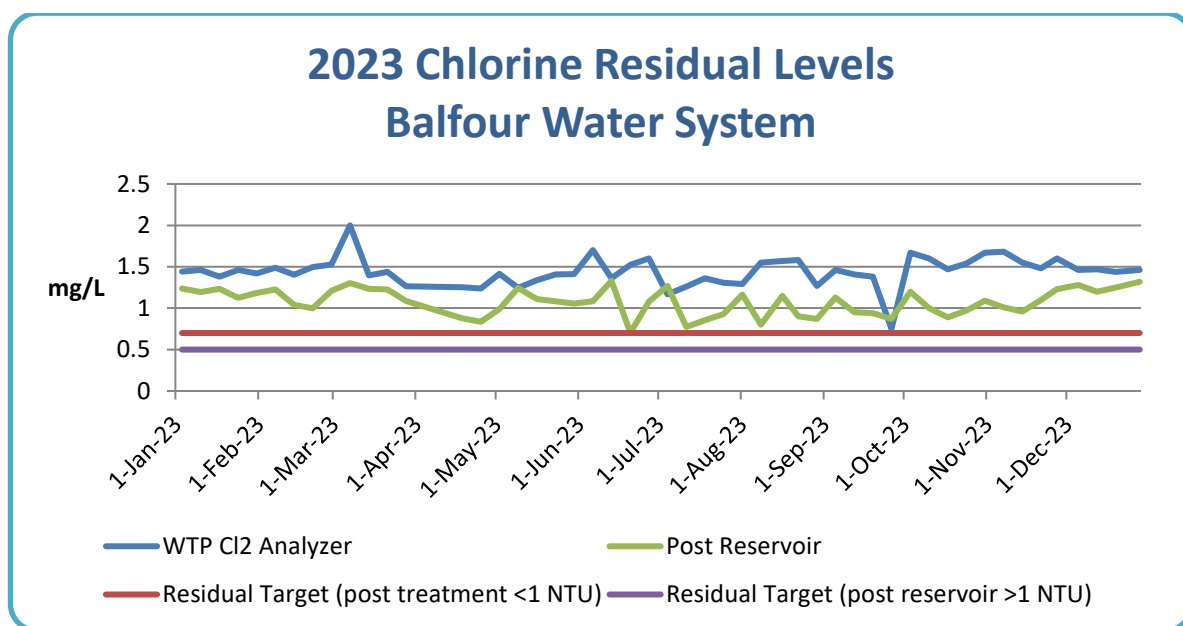


Figure 2 – Free Chlorine Residual Levels for Reporting Period

4.4 Consumption

Flow rates are measured at the pump house, pre-treatment system, post-reservoir (delivers to the lower pressure zone), and at the upper pressure zone outlet. In 2023, the total recorded volume of treated water delivered to the upper and lower pressure zones was **105,901 m³**. This does not include water used for treatment plant processes. Figure 3 details the volumes for post-reservoir/lower pressure zone (50495945) and the upper pressure zone (50496349).

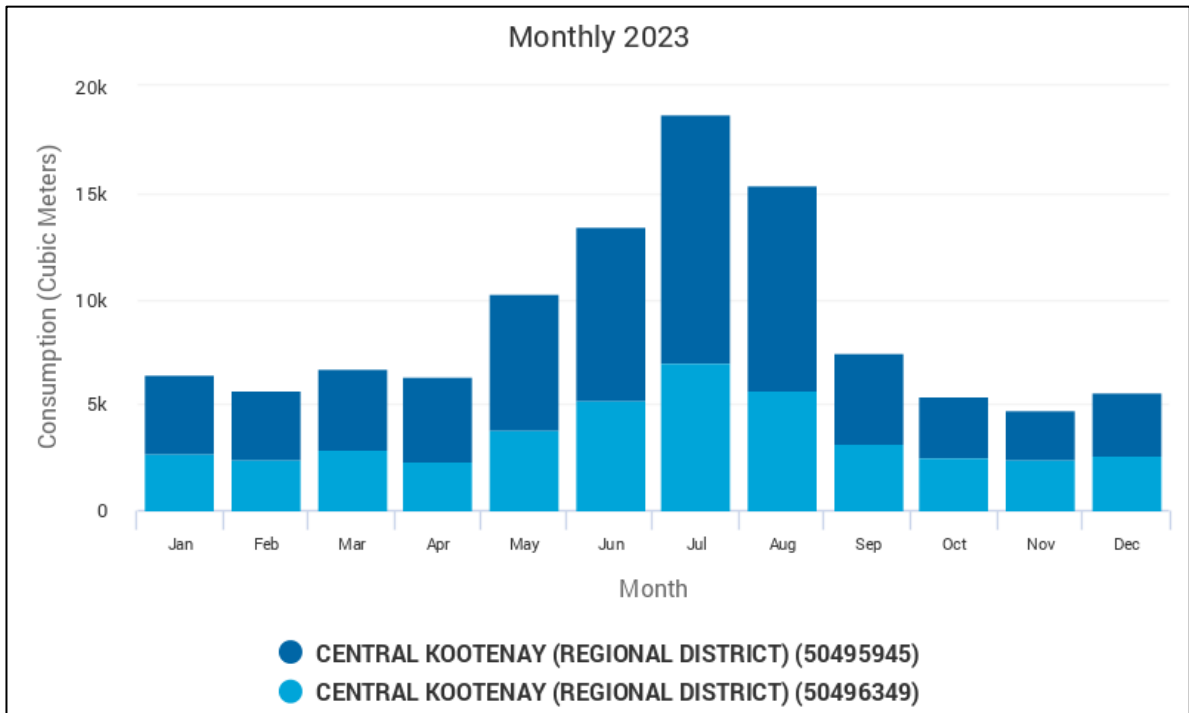


Figure 3 – Treated Water Volumes for Reporting Period

Consumption data is collected using cellular endpoints that transmit meter data to a cellular network, which in turn sends the information to a secured hosted software suite for Advanced Metering Analytics (AMA). The AMA database can be accessed via an internet connection and provides a host of analytical data. The AMA suite also offers a customer portal website where they are able to monitor consumption data, access meter information, and set leak alerts to notify them should usage exceed a customer-set threshold. To date, 135 customers have signed up for the portal website service.

4.5 Chemistry

Comprehensive chemical analysis of water constituents was completed in March 2024 from two separate sources within the distribution system. The results in Appendix A show that chemical parameters are below the Maximum Acceptable Concentration (MAC) as detailed in Health Canada’s *Guidelines for Canadian Drinking Water Quality – Summary Table (2024)*.

The RDCK also tested for the chemical disinfection by-products Trihalomethanes/Haloacetic Acids, and Volatile Organic Compounds in June and September. These results are summarized in Appendix B. The results show that levels are below the MAC as outlined in the *Guidelines*.

5. Advisories Issued

The following table describes the Notices and Advisories issued for the reporting period.

Table 1 – Notices and Advisories Issued

Notice/Advisory Type	Dates in Effect	Reason
Maintenance	May 4	Flushing and valve exercising
*Boil Water Notice - Localized	May 9 - 12	Water main repair
*Boil Water Notice - Localized	Sept 18 - 22	Water main tie-in

*Each Notice/Advisory was issued a Rescind Notice to notify the public once action was completed and water quality sampling results demonstrated good water quality.

6. Capital Projects and Operations & Maintenance

The following capital projects were completed in 2023:

- Balfour Wharf Road water main replacement and Hwy 3A crossing - The works included replacing the existing 720m of aging 4" asbestos cement water main with industry standard 6" PVC. Existing services were replaced to property boundary, which eliminated some leaks and consolidated infrastructure. The project was completed in conjunction with the Ministry of Transportation's paving project to reduce road rehabilitation costs and minimize access disruption for residents.

The following operations & maintenance items were completed in 2023:

- Leak detection on Upper Balfour Road
- Annual flushing and valve exercising
- Spring hydrant testing

7. Water Conservation

Mandatory Stage 1 water conservation measures are in place from June 1 to September 30 every year. Stage 1 measures permit the watering of lawns, gardens, trees and shrubs only from 7pm to 10am daily. Watering using drip irrigation, a watering can or a hand held hose is permitted anytime.

The RDCK implemented Stage 2 Water Conservation Measures on the Balfour water system on July 19th, 2023. These measures remained in place until October 5, 2023 when all conservation measures were rescinded. Stage 2 measures permit watering of lawns, gardens, trees and shrubs ONLY between 6:00am-10:00am and 8:00pm-10:00pm. Watering using drip irrigation, a watering can or a hand held hose is permitted anytime. The RDCK did not implement Stage 3 Water Conservation Measures in the Balfour water system in 2023.

8. Planned Improvements

8.1 Improvements Required by Operating Permit or Drinking Water Officer

The current Interior Health Authority issued Permit to Operate for the Balfour Water System requires the following improvements:

1. Complete modules 1, 2, 7, and 8 of the BC Comprehensive Drinking Water Source to Tap Assessment Guide or equivalent
2. Operate according to the RDCK cross connection control program
 - a. Develop a cross connection control program or implementation plan indicating milestones and dates for completion
 - b. Provide an annual update indicating successes and challenges of the cross connections control implementation plan within the water systems annual report

The source water for the water system is Kootenay Lake. The RDCK completed a comprehensive watershed protection plan for the Balfour water system in March 2023. Signs have been posted that indicate a source water protection area. The Drinking Water Source to Tap Screen has been completed.

According to Water Bylaw 2894, cross connection control is required for all new connections or redevelopments for minor, moderate and severe risk premises, as laid out by the *Canadian Standards Association (CSA-B64)*.

8.2 Future Improvements

Future planned capital upgrades and actions include the following:

- Replacement of water main along Hwy 3A with 8" water main and hydrants
- Secondary water source development

9. Training and Certification

Table 2 – Operator Certification

OPERATOR	ACTIVE EOCP LEVELS
David W. Sharun	WT-II, SWS, WD-II
Jay Colley	SWS, WT-II, WD 2
Kurt Casavant	WT MUI

10. Emergency Response and Contingency Plan

An Emergency Response and Contingency Plan (ERCP) for the Balfour Water System was completed in February 2012, and is updated annually. This document includes emergency contact

information, a communications plan, and detailed procedures for the following types of incidents:

- broken water main;
- source contamination;
- elevated turbidity levels in treated water;
- fire in a building;
- flood conditions;
- loss of source;
- presence of coliforms or E. coli;
- pump failure;
- power failure; and
- low chlorine residuals.

The *Drinking Water Protection Regulation (2003)*, under Section 13, requires that water suppliers provide an ERCP to address any potential emergencies that may impact the delivery of water and health of those being supplied by the water system. The ERCP must be made accessible to the staff of the water supplier and a copy submitted to the local Environmental Health Officer. The RDCK has fulfilled these requirements for the Balfour Water System.

Appendix A: Comprehensive Chemistry Analysis Results



CERTIFICATE OF ANALYSIS

REPORTED TO	Regional District of Central Kootenay - Nelson Box 590 - 202 Lakeside Drive Nelson, BC V1L 5R4	WORK ORDER	24C1041
ATTENTION	RDCK- Nelson	RECEIVED / TEMP REPORTED	2024-03-08 09:30 / 3.8°C 2024-03-14 14:23
PO NUMBER	RDCK- Nelson	COC NUMBER	No Number
PROJECT	General Potability		
PROJECT INFO	BAL		

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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.

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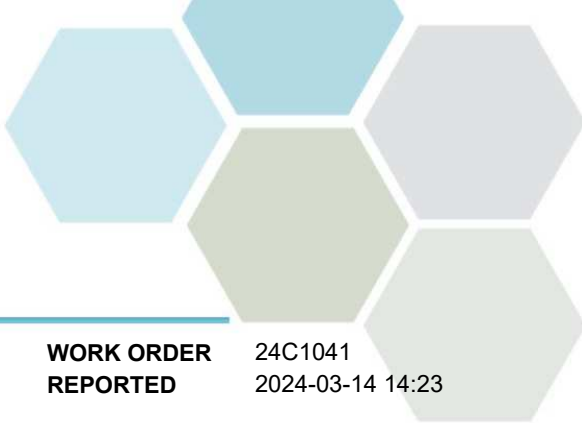
If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

Brent Whitehead
Account Manager

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TEST RESULTS

REPORTED TO PROJECT Regional District of Central Kootenay - Nelson
General Potability

WORK ORDER REPORTED 24C1041
2024-03-14 14:23

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
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Balfour Water (24C1041-01) | Matrix: Water | Sampled: 2024-03-07

Anions

Chloride	3.88	AO ≤ 250	0.10 mg/L	2024-03-09	
Fluoride	0.12	MAC = 1.5	0.10 mg/L	2024-03-09	
Nitrate (as N)	0.184	MAC = 10	0.010 mg/L	2024-03-09	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2024-03-09	
Sulfate	14.5	AO ≤ 500	1.0 mg/L	2024-03-09	

Calculated Parameters

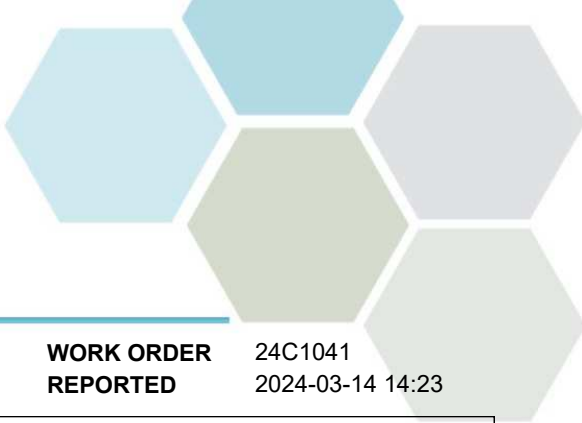
Hardness, Total (as CaCO3)	81.4	None Required	0.500 mg/L	N/A	
Solids, Total Dissolved	108	AO ≤ 500	1.00 mg/L	N/A	

General Parameters

Alkalinity, Total (as CaCO3)	90.0	N/A	1.0 mg/L	2024-03-12	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0 mg/L	2024-03-12	
Alkalinity, Bicarbonate (as CaCO3)	90.0	N/A	1.0 mg/L	2024-03-12	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0 mg/L	2024-03-12	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0 mg/L	2024-03-12	
Conductivity (EC)	175	N/A	2.0 µS/cm	2024-03-12	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020 mg/L	2024-03-12	
pH	7.02	7.0-10.5	0.10 pH units	2024-03-12	HT2
Turbidity	0.10	OG < 1	0.10 NTU	2024-03-10	

Total Metals

Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2024-03-13	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2024-03-13	
Arsenic, total	< 0.00050	MAC = 0.01	0.00050 mg/L	2024-03-13	
Barium, total	0.0220	MAC = 2	0.0050 mg/L	2024-03-13	
Boron, total	< 0.0500	MAC = 5	0.0500 mg/L	2024-03-13	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010 mg/L	2024-03-13	
Calcium, total	23.5	None Required	0.20 mg/L	2024-03-13	
Chromium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2024-03-13	
Copper, total	0.0155	MAC = 2	0.00040 mg/L	2024-03-13	
Iron, total	< 0.010	AO ≤ 0.3	0.010 mg/L	2024-03-13	
Lead, total	0.00056	MAC = 0.005	0.00020 mg/L	2024-03-13	
Magnesium, total	5.49	None Required	0.010 mg/L	2024-03-13	
Manganese, total	< 0.00020	MAC = 0.12	0.00020 mg/L	2024-03-13	
Potassium, total	0.48	N/A	0.10 mg/L	2024-03-13	
Selenium, total	0.00054	MAC = 0.05	0.00050 mg/L	2024-03-13	
Sodium, total	3.94	AO ≤ 200	0.10 mg/L	2024-03-13	
Strontium, total	0.106	MAC = 7	0.0010 mg/L	2024-03-13	
Uranium, total	0.000632	MAC = 0.02	0.000020 mg/L	2024-03-13	
Zinc, total	0.0079	AO ≤ 5	0.0040 mg/L	2024-03-13	



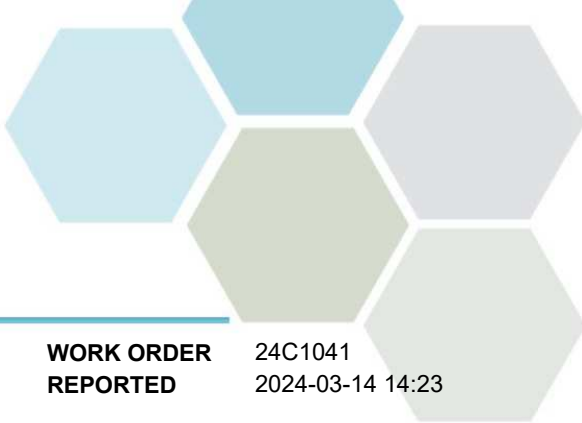
TEST RESULTS

REPORTED TO Regional District of Central Kootenay - Nelson
PROJECT General Potability

WORK ORDER 24C1041
REPORTED 2024-03-14 14:23

Sample Qualifiers:

HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Regional District of Central Kootenay - Nelson
General Potability

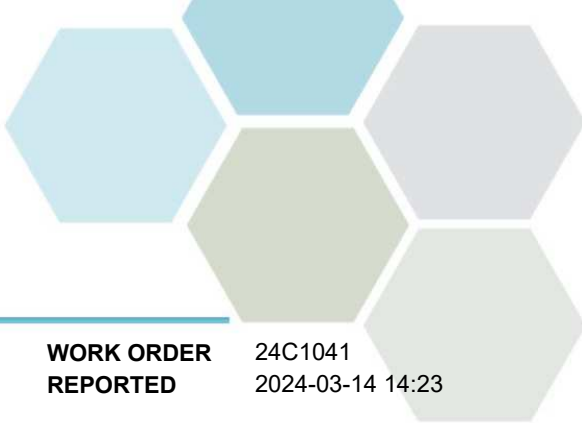
WORK ORDER REPORTED 24C1041
2024-03-14 14:23

Analysis Description	Method Ref.	Technique	Accredited	Location
Alkalinity in Water	SM 2320 B* (2021)	Titration with H2SO4	✓	Kelowna
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Conductivity in Water	SM 2510 B (2021)	Conductivity Meter	✓	Kelowna
Cyanide, SAD in Water	ASTM D7511-12	Flow Injection with In-Line UV Digestion and Amperometry	✓	Kelowna
Hardness in Water	SM 2340 B* (2021)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
pH in Water	SM 4500-H+ B (2021)	Electrometry	✓	Kelowna
Solids, Total Dissolved in Water	SM 1030 E (2021)	SM 1030 E		N/A
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
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
AO	Aesthetic Objective
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
pH units	pH < 7 = acidic, pH > 7 = basic
µS/cm	Microsiemens per centimetre
ASTM	ASTM International Test Methods
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Regional District of Central Kootenay - Nelson
General Potability

WORK ORDER REPORTED 24C1041
2024-03-14 14:23

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Appendix B: Trihalomethanes/Haloacetic Acid and Volatile Organic Compounds Monitoring Results



CERTIFICATE OF ANALYSIS

REPORTED TO	Regional District of Central Kootenay - Nelson Box 590 - 202 Lakeside Drive Nelson, BC V1L 5R4	WORK ORDER	23F0527
ATTENTION	RDCK- Nelson	RECEIVED / TEMP REPORTED	2023-06-05 09:00 / 12.5°C 2023-06-12 11:50
PO NUMBER	RDCK- Nelson	COC NUMBER	No#
PROJECT	General Potability		
PROJECT INFO	BAL-SP Beach St		

Introduction:

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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



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Account Manager

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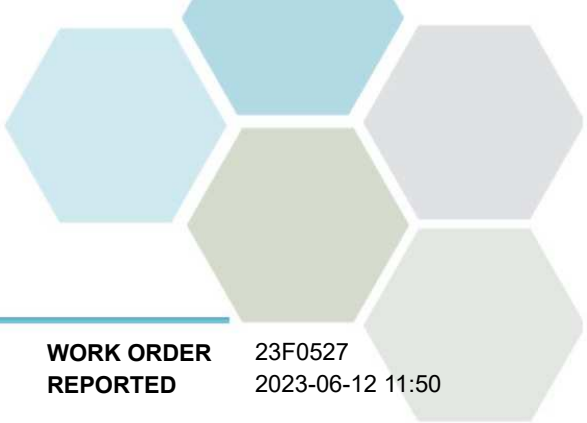


TEST RESULTS

REPORTED TO PROJECT Regional District of Central Kootenay - Nelson
General Potability

WORK ORDER REPORTED 23F0527
2023-06-12 11:50

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
THMA/HAA (23F0527-01) Matrix: Drinking Water Sampled: 2023-06-01 10:35						
Calculated Parameters						
Total Trihalomethanes	0.0485	MAC = 0.1	0.00400	mg/L		N/A
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-06-11	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-06-11	
Dichloroacetic Acid	0.0045	N/A	0.0020	mg/L	2023-06-11	
Trichloroacetic Acid	0.0020	N/A	0.0020	mg/L	2023-06-11	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-06-11	
Total Haloacetic Acids (HAA5)	0.00651	MAC = 0.08	0.00200	mg/L		N/A
Surrogate: 2-Bromopropionic Acid	112		70-130	%	2023-06-11	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	0.0014	N/A	0.0010	mg/L	2023-06-07	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2023-06-07	
Chloroform	0.0470	N/A	0.0010	mg/L	2023-06-07	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2023-06-07	
Surrogate: Toluene-d8	81		70-130	%	2023-06-07	
Surrogate: 4-Bromofluorobenzene	74		70-130	%	2023-06-07	



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Regional District of Central Kootenay - Nelson
General Potability

WORK ORDER REPORTED 23F0527
2023-06-12 11:50

Analysis Description	Method Ref.	Technique	Accredited	Location
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓	Richmond
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	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
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods

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

General Comments:

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CERTIFICATE OF ANALYSIS

REPORTED TO	Regional District of Central Kootenay - Nelson Box 590 - 202 Lakeside Drive Nelson, BC V1L 5R4	WORK ORDER	2310779
ATTENTION	RDCK- Nelson	RECEIVED / TEMP REPORTED	2023-09-08 09:14 / 12.0°C 2023-09-19 11:22
PO NUMBER	RDCK- Nelson	COC NUMBER	No#
PROJECT	Analytical Testing		
PROJECT INFO	BAL-Beach SP		

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 bwhitehead@caro.ca

Authorized By:

Brent Whitehead
Account Manager

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TEST RESULTS

REPORTED TO PROJECT Regional District of Central Kootenay - Nelson Analytical Testing

WORK ORDER REPORTED 2310779
2023-09-19 11:22

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
BAL-Beach SP (2310779-01) Matrix: Water Sampled: 2023-09-06 13:10						
<i>Calculated Parameters</i>						
Total Trihalomethanes	0.0437	MAC = 0.1	0.00400	mg/L		N/A
<i>Haloacetic Acids</i>						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L		2023-09-15
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L		2023-09-15
Dichloroacetic Acid	0.0247	N/A	0.0020	mg/L		2023-09-15
Trichloroacetic Acid	0.0334	N/A	0.0020	mg/L		2023-09-15
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L		2023-09-15
Total Haloacetic Acids (HAA5)	0.0580	MAC = 0.08	0.00200	mg/L		N/A
Surrogate: 2-Bromopropionic Acid	102		70-130	%		2023-09-15
<i>Volatile Organic Compounds (VOC)</i>						
Bromodichloromethane	0.0012	N/A	0.0010	mg/L		2023-09-15
Bromoform	< 0.0010	N/A	0.0010	mg/L		2023-09-15
Chloroform	0.0425	N/A	0.0010	mg/L		2023-09-15
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L		2023-09-15
Surrogate: Toluene-d8	64		70-130	%		2023-09-15 S02
Surrogate: 4-Bromofluorobenzene	116		70-130	%		2023-09-15

Sample Qualifiers:

S02 Surrogate recovery outside of control limits. Data accepted based on acceptable recovery of other surrogates.



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Regional District of Central Kootenay - Nelson
Analytical Testing

WORK ORDER REPORTED 2310779
2023-09-19 11:22

Analysis Description	Method Ref.	Technique	Accredited	Location
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓	Richmond
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	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
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods

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