

# District of 100 Mile House Annual Drinking Water Report 2023



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## Introduction

This report was prepared in compliance with the requirements under the British Columbia Drinking Water Protection Act (DWPA) and the District of 100 Mile House Operating Permit. Included in this document is an overview of the treatment and distribution system within the District, a summary of the total water consumption and water quality analysis within the system, and a recap of projects and related operations. This report has been provided to Interior Health and posted on the District of 100 Mile House website for public reading.

# District of 100 Mile House Water System

The District of 100 Mile House drinking water system consists of a single treatment plant that feeds the distribution system through most areas of 100 Mile House. The water distribution system consists of three reservoirs, one booster station, and two pressure-reducing stations. The storage capacity of our reservoirs is as follows: Low Zone Reservoir - 1.2 million liters, High Zone Reservoir - 455,000 liters and the Exeter Reservoir - 1.6 Million Liters.

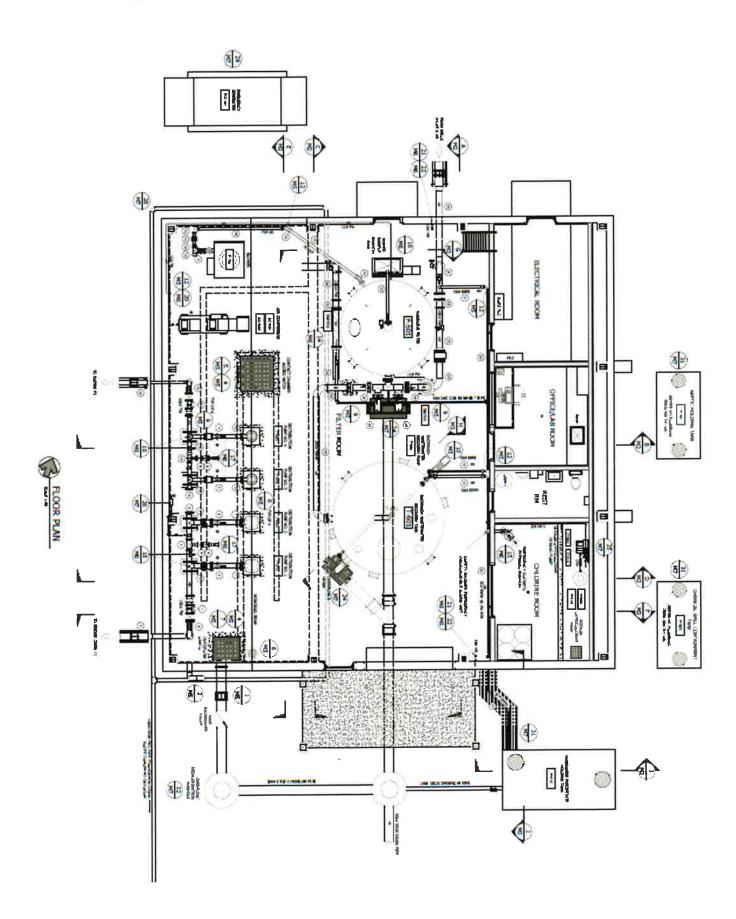
## District of 100 Mile House Water Treatment Plant

The Water treatment plant, commissioned in September 2018, treats ground water that is collected from three deep wells located next to the water treatment plant. The water is filtered through a Biological Treatment Process. When in the filter, the water makes contact with the natural media. The natural occurring bacteria in the media (the Biolite™ "S") start to consume the Manganese and Iron that is naturally present in the ground water, which then forms the precipitate (sludge). The filtered water is then chlorinated and stored in our clear well, before being introduced into the distributed system. The filter media is maintained through periodic backwashes, which removes the precipitant (sludge) accumulated in the filter media. The bacteria naturally existing in the raw water stay in the media, even after an adapted wash of the filter. The backwashed water and waste material are then stored in the backwash wastewater recovery tank, where the sludge will be sent to a holding tank and the water will be recovered and reintroduced into the raw water entering the filter tank.



Figure 1: The District of 100 Mile House Water Treatment Plan







## Water Treatment Plant Production

Figure 2: Monthly Total Production for the Past 5 Years

7~						Year to	Year Com	parison
	2019	2020	2021	2022	2023	Average	Minimum	Maximum
January	32,247	29,351	30,187	42,165	31,851	33,160	29,351	42,165
February	27,998	27,541	30,296	39,254	29,427	30,903	27,541	39,254
March	32,000	32,160	35,070	46,814	33,445	35,898	32,000	46,814
April	30,858	28,308	38,657	41,730	32,485	34,408	28,308	41,730
May	50,049	24,909	48,868	52,247	48,648	44,944	24,909	52,247
June	59,347	42,283	65,163	55,890	57,831	56,103	42,283	65,163
July	49,196	48,817	89,144	61,305	65,312	62,755	48,817	89,144
August	57,980	52,247	74,862	60,073	60,182	61,069	52,247	74,862
September	41,492	40,256	53,593	44,862	42,573	44,555	40,256	53,593
October	31,512	30,336	41,262	33,766	31,646	33,704	30,336	41,262
November	28,055	28,797	38,988	30,423	29,865	31,226	28,055	38,988
December	29,908	27,730	40,629	32,287	29,908	32,092	27,730	40,629
Total	470,637	422,735	586,719	540,816	493,173			
Daily Peak	2,881	2,380	3,510	2,714	2,747			
Peak Date	10-Aug	20-Aug	03-July	13-July	11-July			
Daily Low	≥ 600	626	801	669	548			
Average Daily Usage	1289	1157	1,603	1,478	1,346			

These monthly numbers can be graphically seen in Figure 3. Total consumption for 2023 was 47,643 cubic meters less than 2022. Consumption has been measured in cubic meters.



Figure 3: Graphical Representation of 2019 – 2023 Water Consumption

# Water Consumption 2019-2023

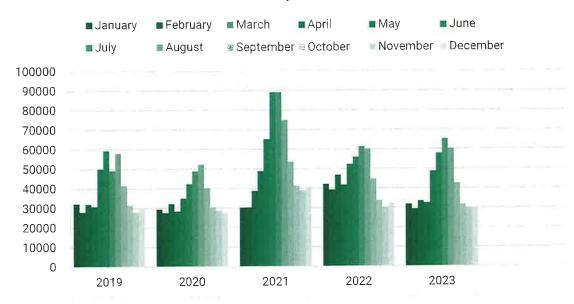
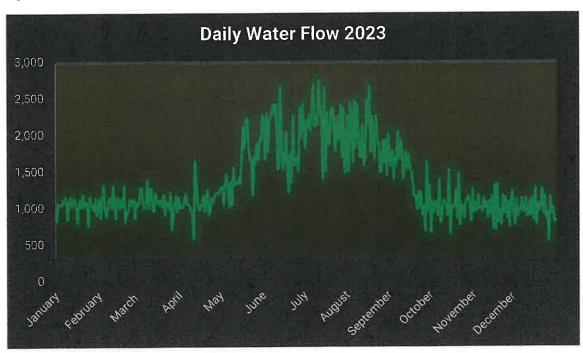


Figure 4 shows the daily water consumption for 2023. The daily peak for 2023 was 2,747 cubic meters, which occurred on July 11<sup>th</sup>. The treatment plant can achieve a maximum daily flow of 3.45 million liters which allows room for population growth well into the future.

Figure 4: Daily Water Flows for 2023





# Distribution System Overview

The distribution system consists of 25.16km of water mains, one booster station, two pressure reducing valves, three reservoirs, and a total of approximately 850 connections.

#### **Distribution System**

The maintenance of the distribution system consists of actively replacing lines that have either reached the end of their functional life, need upgrading due to inadequate sizing for development, or are in poor condition and cause issues.

Figure 5: Water Main Material Summary

Length by Material Type	Abandoned Pipe (km)	Existing Total (km)
PVC:	0.105	13.18
AC:	0.72	11.98
Total:	0.585	25.16

#### 2023 Distribution System Events

In 2023 the following event occurred:

• April 18<sup>th</sup> – Evergreen Crescent: Service saddle previously used as a watermain blowout deteriorated and came free of the water main, causing what looked to be a water main break.

#### **Cross Connection Control**

In 2023 the District of 100 Mile House, in conjunction with Maintenance Training Systems (MTS) of Vernon, will be working to establish a Cross Connection Program.

The purpose of the cross-connection control program is **to reduce the hazard of contamination of the public water system** by identifying actual and potential cross-connections and taking action to protect the system from these hazards.



## SCADA - Supervisory Control and Data Acquisition (SCADA)

The SCADA system is designed to allow operators real time data on how the Water Treatment Plant and distribution system are functioning, as well as enabling an operator to make changes to the operation of the Water Treatment Plant and booster station. The SCADA system is also designed to send an alarm to the operator if there is a problem within the system to help ensure that the Districts water distribution system continues to function.



# Water Quality Sampling and Analysis

The water quality from our source water, at the treatment facility and within the distribution system, is analyzed extensively. Samples are collected daily and analyzed locally from the raw water and treated water at the plant. Bacteriological samples are also analyzed throughout the distribution system on a weekly basis. Samples of our source water and from within the distribution system are taken and sent off to an accredited lab for extensive analysis.

## Water Quality Testing

There are a variety of parameters measured which are listed in the following paragraphs. These parameters are monitored at the plant in order to check the treatment process. The following Figure 6 summarizes the results of the daily analysis for the water treatment plant. These analyses are done in-house by the certified operators at the District of 100 Mile House.

#### рН

pH is a measure of the activity of the hydrogen ion in water. It represents the acidity or basicity of water. The pH scale goes from 0 to 14 with anything smaller than 7 being acidic, anything greater than 7 being basic and 7 being neutral. Drinking water is regulated to fall between a pH of 6.5 to 8.5.

#### Free and Total Chlorine (Cl<sub>2</sub>)

Chlorine levels are important in water treatment to ensure that water is safe all the way through the distribution system to each home. The primary form of chlorine used in our treatment system is sodium hypochlorite. Free chlorine measures the amount of hypochlorite in our water, while total chlorine measures the free chlorine plus any combined chlorine disinfectants such as chloramines. In our system we must maintain a residual free chlorine level greater than 0.2 mg/L at the end of the distribution system.

Figure 6: Levels leaving water treatment plant to district system

	Average PH	Average Free Cl2	Average Total Cl2
January	7.757	1.320	1.483
February	7.803	1.350	1.518
March	7.821	1.346	1.491
April	7.858	1.399	1.537
May	7.954	1.528	1.731
June	7.980	1.634	1.804
July	8.063	1.716	1.894
August	8.037	1.553	1.717
September	8.041	1.438	1.591
October	8.028	1.601	1.785
November	6.985	1.552	1.771
December	6.949	1.514	1.703
Yearly Average	7.773	1.496	1.669



## Distribution Sampling

The District of 100 Mile House is committed to providing safe drinking water to each and every connection within its service area. To this end, the distribution system is sampled at 3 different locations. These samples are analyzed for background bacterial counts, total coliforms, and E. Coli. The District has installed 3 sample stations to optimize sampling.

#### **Background Bacterial Monitoring**

Background bacteria monitoring is done through what is called a Heterotrophic Plate Count (HPC). Heterotrophic bacteria are a group of bacteria that use carbon as a food source and can be found in a variety of water sources. Most bacteria found in water are actually heterotrophic. In general, these bacteria are not pathogenic and the HPC test in itself will not tell you whether the water is bad to drink. Due to this there is no maximum acceptable concentration (MAC) as stated in the Canadian Drinking Water Guidelines. What this test does tell you is whether there are conditions within the system that bacteria can regrow or thrive in.

The District of 100 Mile House uses this test to monitor integrity and overall 'health' of the distribution system. If a sample is positive for background bacteria greater than 200 counts the system is flushed and resampled. Any positive counts of any size for background bacteria are also resampled immediately which is above and beyond any legislative requirements.

#### Coliform Bacterial Monitoring

Coliform bacteria are a group of bacteria that is a little more of a narrow focus from the HPC test. These bacteria again represent a large group of bacteria found in water, soil, on vegetation and in the feces of mammals. Most of these bacteria are not harmful to humans, but because of the ease of testing of this bacterium it makes for a great indicator of contamination.

In water treatment systems there is a zero-threshold allowance for coliforms within water samples. If a sample shows up positive for coliforms the site is immediately resampled and if there are again coliforms a boil water advisory is put in place. The distribution area is then pulled offline and cleaned before being put back into action and resampled.

#### E. Coli Bacterial Monitoring

E. Coli bacteria are a sub section of coliform bacteria. Again, these bacteria may not be harmful to human health, but specific strains can cause serious health issues and even death in some instances. These bacteria are also found almost exclusively in warm blooded feces and therefore a definite sign of contamination. Any positive counts for coliforms or E. Coli result in an immediate boil water advisory, resampling and cleaning of the affected area.

## 2023 Bacterial Monitoring Results

There was a total of zero positive results for background bacteria and zero positive results for coliforms in 2023. The were no positive results for E. Coli bacteria in 2023.



Figure 7: 2023 Distribution System Biological Sampling

Date	Number of Samples Taken	Samples Positive for Background Bacteria	Samples Positive for Coliforms	Samples Positive for E. Coli	Notes/ Measures Taken
Jan 4	3	0	0	0	
Jan 10	3	0	0	0	
Jan 17	3	0	0	0	
Jan 24	3	0	0	0	
Jan 31	3	0	0	0	
Feb 7	3	0	0	0	
Feb 14	3	0	0	0	
Feb 21	3	0	0	0	
Feb 28	3	0	0	0	
Mar 7	3	0	0	0	
Mar 13	3	0	0	0	
Mar 21	3	0	0	0	
Mar 28	3	0	0	0	
April 3	3	0	0	0	
April 11	3	0	0	0	
April 18	3	0	0	0	
April 25	3	0	0	0	
May 2	3	0	0	0	
May 9	3	0	0	0	
May 16	3	0	0	0	
May 23	3	0	0	0	
May 30	3	0	0	0	
May 31	3	0	0	0	
June 1	3	0	0	0	
June 6	3	0	0	0	
June 12	3	0	0	0	
June 20	3	0	0	0	
June 26	3	0	0	0	
July 4	3	0	0	0	
July 10	3	0	0	0	
	3	0	0	0	
July 24		0	0	0	
July 31	3	0	0	0	
Aug 8	3	0	0	0	
Aug 14	3	0	0	0	
Aug 21	3		0	0	
Aug 28	3	0		0	
Sept 5	3	0	0	0	
Sept 12	4	0	0	0	
Sept 19	3	0	0		
Sept 25	3	0	0	0	
Oct 3	3	0	0	0	
Oct 10	3	0	0	0	
Oct 17	4	0	0	0	
Oct 24	3	0	0	0	
Oct 31	3	0	0	0	
Nov 7	3	0	0	0	
Nov 14	3	0	0	0	
Nov 21	3	0	0	0	
Nov 28	3	0	0	0	
Dec 5	3	0	0	0	
Dec 12	3	0	0	0	
Dec 19	3	0	0	0	
Totals	161	0	0	0	



## Quarterly Raw and Distribution Sampling

The following are extensive water quality analysis results as completed by a provincially accredited lab, taken from the source water and within the distribution system. The samples were taken by District staff and sent off to CARO Analytical Services in Kelowna, BC. The results of this extensive analysis can be seen below. As seen in the tables all the treated water quality parameters are within the Guidelines for Canadian Drinking Water Quality.





# **CERTIFICATE OF ANALYSIS**



100 Mile House, District of

Box 340 -385 Horse Lake Road 100 Mile House, BC V0K 2E0

**ATTENTION** 

Paul Donnelly

PO NUMBER

**Drinking Water** 

PROJECT INFO

Drinking Water - Chemistry

**WORK ORDER** 

23A1651

**RECEIVED / TEMP** 

2023-01-18 07:55 / 5.8°C

REPORTED

2023-01-24 17:29

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



We've Got Chemistry



Ahead of the Curve



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.

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.

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 A what

1-888-311-8846 | www.caro.ca



REPORTED TO PROJECT

100 Mile House, District of Drinking Water - Chemistry

WORK ORDER

23A1651

REPORTED

2023-01-24 17:29

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Days Inn (23A1651-01)   Matrix: Water	r   Sampled: 2023-01-	-17 09:40				
Calculated Parameters						
Hardness, Total (as CaCO3)	310	None Required	0.500	mg/L	N/A	
Total Metals						
Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2023-01-23	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-01-23	
Arsenic, total	0.00141	MAC = 0.01	0.00050	mg/L	2023-01-23	
Barium, total	< 0.0050	MAC = 2	0.0050	mg/L	2023-01-23	
Beryllium, total	< 0.00010	N/A	0.00010	mg/L	2023-01-23	
Bismuth, total	< 0.00010	N/A	0.00010	mg/L	2023-01-23	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-01-23	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010	mg/L	2023-01-23	
Calcium, total	20.4	None Required	4 40	mg/L	2023-01-23	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	Charles and Co.	2023-01-23	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2023-01-23	
-1 -1 H ( 9-0)	0.0439	MAC = 2	0.00040	mg/L	2023-01-23	
Copper, total	< 0.010	AO ≤ 0.3		mg/L	2023-01-23	
Iron, total	< 0.00020	MAC = 0.005	0.00020		2023-01-23	
Lead, total	0.00665	N/A	0.00010		2023-01-23	
Lithium, total	62.9	None Required		mg/L	2023-01-23	
Magnesium, total	0.00381	MAC = 0.12	0.00020		2023-01-23	
Manganese, total	0.00816	N/A	0.00010		2023-01-23	
Molybdenum, total	0.00077	N/A	0.00040	_	2023-01-23	
Nickel, total	0.0077	N/A		mg/L	2023-01-23	
Phosphorus, total	18.9	N/A		mg/L	2023-01-23	
Potassium, total	0.00719	MAC = 0.05	0.00050		2023-01-23	
Selenium, total	10.8	N/A		mg/L	2023-01-23	
Silicon, total	< 0.000050	None Required	0.000050	_	2023-01-23	
Silver, total	285	AO ≤ 200		mg/L	2023-01-23	
Sodium, total	0.0558	MAC = 7	0.0010	The state of the s	2023-01-23	
Strontium, total		N/A		mg/L	2023-01-23	
Sulfur, total	<b>43.0</b> < 0.00050	N/A	0.00050	-	2023-01-23	-
Tellurium, total	-0 0-0-0	N/A	0.000020		2023-01-23	
Thallium, total	< 0.000020	N/A	0.00010		2023-01-23	
Thorium, total	< 0.00010		0.00010		2023-01-23	
Tin, total	< 0.00020	N/A N/A	0.0050		2023-01-23	
Titanium, total	< 0.0050	N/A N/A	0.0030		2023-01-23	
Tungsten, total	< 0.0010		0.000020		2023-01-23	
Uranium, total	0.00752	MAC = 0.02	0.000020		2023-01-23	
Vanadium, total	< 0.0050	N/A	0.0030	_	2023-01-23	
Zinc, total	0.0064	AO ≤ 5	0.0040	and the second	2023-01-23	
Zirconium, total	0.00038	N/A	0.00010	mg/L	2020-01-20	

100 Mile New and Used (23A1651-02) | Matrix: Water | Sampled: 2023-01-17 10:35



REPORTED TO 100 Mile House, District of PROJECT Drinking Water - Chemistry

Drinking Water - Chemistry REPORTED

**WORK ORDER** 23A1651 **REPORTED** 2023-01-24 17:29

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
100 Mile New and Used (23A1651-0	02)   Matrix: Water   San	npled: 2023-01-17 1	0:35, Contin	ued		
Calculated Parameters						
Hardness, Total (as CaCO3)	674	None Required	0.500	mg/L	N/A	
Total Metals						
Aluminum, total	< 0.0050	OG < 0.1	0.0050	ma/l	2023-01-23	
Antimony, total	< 0.00020	MAC = 0.006	0.00020		2023-01-23	
Arsenic, total	0.00143	MAC = 0.01	0.00050	- A	2023-01-23	
Barium, total	0.0111	MAC = 2	0.0050		2023-01-23	
Beryllium, total	< 0.00010	N/A	0.00010	and the state of t	2023-01-23	-
Bismuth, total	< 0.00010	N/A	0.00010		2023-01-23	
Boron, total	< 0.0500	MAC = 5	0.0500		2023-01-23	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010		2023-01-23	
Calcium, total	69.5	None Required		mg/L	2023-01-23	
Chromium, total	< 0.00050	MAC = 0.05	0.00050		2023-01-23	
Cobalt, total	< 0.00010	N/A	0.00010		2023-01-23	
Copper, total	0.0702	MAC = 2	0.00040		2023-01-23	
Iron, total	< 0.010	AO ≤ 0.3	0.010		2023-01-23	
Lead, total	0.00037	MAC = 0.005	0.00020	The second of	2023-01-23	
Lithium, total	0.00722	N/A	0.00010		2023-01-23	
Magnesium, total	122	None Required		mg/L	2023-01-23	
Manganese, total	0.00023	MAC = 0.12	0.00020		2023-01-23	
Molybdenum, total	0.00793	N/A	0.00010		2023-01-23	
Nickel, total	0.00081	N/A	0.00040		2023-01-23	
Phosphorus, total	0.053	N/A	0.050		2023-01-23	
Potassium, total	8.60	N/A		mg/L	2023-01-23	200
Selenium, total	0.00696	MAC = 0.05	0.00050		2023-01-23	
Silicon, total	11.6	N/A		mg/L	2023-01-23	
Silver, total	< 0.000050	None Required	0.000050	and the same of the same	2023-01-23	
Sodium, total	134	AO ≤ 200		mg/L	2023-01-23	
Strontium, total	0.198	MAC = 7	0.0010		2023-01-23	
Sulfur, total	44.9	N/A		mg/L	2023-01-23	
Tellurium, total	< 0.00050	N/A	0.00050		2023-01-23	
Thailium, total	< 0.000020	N/A	0.000020		2023-01-23	
Thorium, total	< 0.00010	N/A	0.00010		2023-01-23	1000
Tin, total	< 0.00020	N/A	0.00020	1000	2023-01-23	
Titanium, total	< 0.0050	N/A	0.0050		2023-01-23	
Tungsten, total	< 0.0010	N/A	0.0010		2023-01-23	
Uranium, total	0.00751	MAC = 0.02	0.000020	The state of the s	2023-01-23	
Vanadium, total	< 0.0050	N/A	0.0050	the second second	2023-01-23	
Zinc, total	0.0104	AO ≤ 5	0.0040		2023-01-23	
Zirconium, total	0.00036	N/A	0.00010		2023-01-23	C

District Office (23A1651-03) | Matrix: Water | Sampled: 2023-01-17 10:15



REPORTED TO PROJECT

100 Mile House, District of Drinking Water - Chemistry **WORK ORDER** 

23A1651

REPORTED

2023-01-24 17:29

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
District Office (23A1651-03)   Matrix	: Water   Sampled: 202	23-01-17 10:15, Cont	tinued			
Calculated Parameters						
Hardness, Total (as CaCO3)	688	None Required	0.500	mg/L	N/A	
Total Metals						
Aluminum, total	0.0058	OG < 0.1	0.0050	mg/L	2023-01-23	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-01-23	
Arsenic, total	0.00144	MAC = 0.01	0.00050	mg/L	2023-01-23	
Barium, total	0.0105	MAC = 2	0.0050	mg/L	2023-01-23	
Beryllium, total	< 0.00010	N/A	0.00010	mg/L	2023-01-23	
Bismuth, total	< 0.00010	N/A	0.00010	mg/L	2023-01-23	
	< 0.0500	MAC = 5	0.0500	mg/L	2023-01-23	
Boron, total	< 0.000010	MAC = 0.007	0.000010	mg/L	2023-01-23	
Cadmium, total	72.8	None Required	0.20	mg/L	2023-01-23	
Calcium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-01-23	
Chromium, total	< 0.00010	N/A	0.00010		2023-01-23	
Cobalt, total	0.0357	MAC = 2	0.00040	property and the second	2023-01-23	
Copper, total	< 0.010	AO ≤ 0.3		mg/L	2023-01-23	
Iron, total	0.00055	MAC = 0.005	0.00020	the state of the s	2023-01-23	
Lead, total	0.00053	N/A	0.00010	10 To 1 A TO 1	2023-01-23	
Lithium, total	123	None Required	the second	mg/L	2023-01-23	
Magnesium, total		MAC = 0.12	0.00020		2023-01-23	
Manganese, total	0.0104	N/A	0.00020		2023-01-23	
Molybdenum, total	0.00833	N/A	0.00010		2023-01-23	
Nickel, total	0.00078	r H =		mg/L	2023-01-23	
Phosphorus, total	< 0.050	N/A		mg/L	2023-01-23	
Potassium, total	8.12	N/A	0.00050		2023-01-23	
Selenium, total	0.00741	MAC = 0.05			2023-01-23	
Silicon, total	11.8	N/A		mg/L	2023-01-23	
Silver, total	< 0.000050	None Required	0.000050		2023-01-23	
Sodium, total	133	AO ≤ 200		mg/L	2023-01-23	
Strontium, total	0.193	MAC = 7	0.0010		2023-01-23	
Sulfur, total	45.6	N/A	3.0		2023-01-23	
Tellurium, total	< 0.00050	N/A	0.00050			
Thallium, total	< 0.000020	N/A	0.000020		2023-01-23	
Thorium, total	< 0.00010	N/A	0.00010	100	2023-01-23	
Tin, total	< 0.00020	N/A	0.00020		2023-01-23	
Titanium, total	< 0.0050	N/A	0.0050		2023-01-23	
Tungsten, total	< 0.0010	N/A	0.0010		2023-01-23	×
Uranium, total	0.00762	MAC = 0.02	0.000020		2023-01-23	
Vanadium, total	< 0.0050	N/A	0.0050		2023-01-23	
Zinc, total	< 0.0040	AO ≤ 5	0.0040		2023-01-23	
Zirconium, total	0.00036	N/A	0.00010	mg/L	2023-01-23	

WTP - Raw before Filter (23A1651-04) | Matrix: Water | Sampled: 2023-01-17 10:05





REPORTED TO 100 Mile House, District of

PROJECT Drinking Water - Chemistry

WORK ORDER

23A1651

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2023-01-24 17:29

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WTP - Raw before Filter (23A1651-0	04)   Matrix: Water   Sar	npled: 2023-01-17 1	10:05, Contin	ued		
Calculated Parameters						
Hardness, Total (as CaCO3)	681	None Required	0,500	mg/L	N/A	
Total Metals						
Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2023-01-23	
Antimony, total	< 0.00020	MAC = 0.006	0.00020		2023-01-23	-
Arsenic, total	0.00176	MAC = 0.01	0.00050		2023-01-23	
Barium, total	0.0144	MAC = 2	0.0050		2023-01-23	
Beryllium, total	< 0.00010	N/A	0.00010		2023-01-23	
Bismuth, total	< 0.00010	N/A	0.00010	The second second	2023-01-23	
Boron, total	< 0.0500	MAC = 5	0.0500		2023-01-23	
Cadmium, total	0.000014	MAC = 0.007	0.000010		2023-01-23	
Calcium, total	72.6	None Required		mg/L	2023-01-23	
Chromium, total	0.00086	MAC = 0.05	0.00050		2023-01-23	
Cobalt, total	0.00020	N/A	0.00010		2023-01-23	-
Copper, total	0.00113	MAC = 2	0.00040		2023-01-23	-
Iron, total	0.158	AO ≤ 0.3	0.010		2023-01-23	
Lead, total	< 0.00020	MAC = 0.005	0.00020	1.00	2023-01-23	
Lithium, total	0.00830	N/A	0.00010		2023-01-23	
Magnesium, total	121	None Required	0.010		2023-01-23	
Manganese, total	0.286	MAC = 0.12	0.00020		2023-01-23	
Molybdenum, total	0.00862	N/A	0.00010	The state of the s	2023-01-23	11
Nickel, total	0.00123	N/A	0.00040		2023-01-23	100
Phosphorus, total	0.070	N/A		mg/L	2023-01-23	
Potassium, total	8.58	N/A		mg/L	2023-01-23	
Selenium, total	0.00695	MAC = 0.05	0.00050		2023-01-23	
Silicon, total	11.8	N/A	1.0		2023-01-23	200
Silver, total	< 0.000050	None Required	0.000050		2023-01-23	
Sodium, total	135	AO ≤ 200		mg/L	2023-01-23	
Strontium, total	0.200	MAC = 7	0.0010		2023-01-23	
Sulfur, total	45.1	N/A	-	mg/L	2023-01-23	
Tellurium, total	< 0.00050	N/A	0.00050		2023-01-23	
Thallium, total	< 0.00030	N/A	0.000030		2023-01-23	
Thorium, total	< 0.00010	N/A	0.00010		2023-01-23	= 1044
Tin, total	< 0.00010	N/A	0.00010		2023-01-23	
Titanium, total	< 0.0050	N/A N/A	0.00020		2023-01-23	
Tungsten, total	< 0.0030	N/A	0.0030		2023-01-23	·
Uranium, total	0.00746	MAC = 0.02	0.000020	mg/L	2023-01-23	
Vanadium, total	< 0.00748	N/A	0.00020	mg/L	2023-01-23	
Zinc, total	< 0.0030	AO ≤ 5	0.0030		2023-01-23	38 +
Zirconium, total	0.0043	N/A	0.0040		2023-01-23	





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100 Mile House, District of Drinking Water - Chemistry WORK ORDER

23A1651

2023-01-24 17:29 REPORTED

Method Ref.	Technique	Accredited	Location
SM 2340 B* (2021)	Calculation: 2.497 [total Ca] + 4.118 [total Mg]	✓	N/A
EPA 200.2 / EPA 6020B	HNO3+HCI Hot Block Digestion / Inductively	<b>√</b>	Richmond
	SM 2340 B* (2021) EPA 200.2 / EPA 6020B	SM 2340 B* (2021)  Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)  EPA 200.2 / EPA 6020B  HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	SM 2340 B* (2021)  Calculation: 2.497 [total Ca] + 4.118 [total Mg]  (Est)  EPA 200.2 / EPA 6020B  HNO3+HCl Hot Block Digestion / Inductively  Coupled Plasma-Mass Spectroscopy (ICP-MS)

#### 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, 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:

The results in this report apply to the received 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:bwhitehead@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.



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100 Mile House, District of Drinking Water - Chemistry WORK ORDER

23D2106

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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
NTP - Raw Water Wells 5 & 6 (23D2106-0	1)   Matrix: Water	Sampled: 2023-04	-19 08:35			
Anions						
Chloride	110	AO ≤ 250	0.10	mg/L	2023-04-20	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2023-04-20	
Nitrate (as N)	0.538	MAC = 10	0.010	mg/L	2023-04-20	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2023-04-20	
Sulfate	119	AO ≤ 500	1.0	mg/L	2023-04-20	
Calculated Parameters						
	< 0.00400	MAC = 0.1	0.00400	ma/L	N/A	
Total Trihalomethanes	622	None Required	0.500		N/A	
Hardness, Total (as CaCO3)	0.7	N/A	-5.0	3-	2023-04-26	СТ6
Langelier Index		AO ≤ 500	the second way to be a second or the second of	mg/L	N/A	
Solids, Total Dissolved	878	AO = 300	10.0	9/2	22007/	
General Parameters	551	N/A	1.0	mg/L	2023-04-21	
Alkalinity, Total (as CaCO3)	< 1.0	N/A		mg/L	2023-04-21	
Alkalinity, Phenolphthalein (as CaCO3)		N/A		mg/L	2023-04-21	
Alkalinity, Bicarbonate (as CaCO3)	<b>551</b> < 1.0	N/A		mg/L	2023-04-21	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A			2023-04-21	
Alkalinity, Hydroxide (as CaCO3)		None Required		mg/L	2023-04-20	
Ammonia, Total (as N)	0.847	N/A		mg/L	2023-04-20	-
Carbon, Total Organic	3.62	N/A AO ≤ 15	the second second second second	CU	2023-04-22	
Colour, True	< 5.0	to the second of the second	tion could be a	μS/cm	2023-04-21	
Conductivity (EC)	1550	N/A	0.0020		2023-04-21	
Cyanide, Total	< 0.0020	MAC = 0.2		pH units	2023-04-21	HT2
pH	7.75	7.0-10.5	0.0050		2023-04-21	3 8 1 1 2 7
Phosphorus, Total (as P)	0.0522	N/A	0.0050	°C	2023-04-21	HT2
Temperature, at pH	22.1	N/A	0.10	NTU	2023-04-21	
Turbidity	0.61	OG < 1	0.10	NIO	2023-04-21	4.00
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-04-24	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-04-24	
Dichloroacetic Acid	< 0.0020	N/A	0.0020		2023-04-24	
Trichloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-04-24	_
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-04-24	
Total Haloacetic Acids (HAA5)	< 0.00200	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	120		70-130	%	2023-04-24	21/2
Total Metals						
Aluminum, total	< 0.0050	OG < 0.1		mg/L	2023-04-25	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-04-25	
Arsenic, total	0.00167	MAC = 0.01	0.00050	mg/L	2023-04-25	
Barium, total	0.0145	MAC = 2	0.0050	mg/L	2023-04-25	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-04-25	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010	mg/L	2023-04-25	



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100 Mile House, District of Drinking Water - Chemistry

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23D2106

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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
/TP - Raw Water Wells 5 & 6 (23D2106	6-01)   Matrix: Water	Sampled: 2023-04	1-19 08:35, C	ontinued		
otal Metals, Continued						
Calcium, total	68.2	None Required	0.20	mg/L	2023-04-25	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-04-25	
Cobalt, total	0.00019	N/A	0.00010	mg/L	2023-04-25	
Copper, total	0.00074	MAC = 2	0.00040	mg/L	2023-04-25	5 311
Iron, total	0.086	AO ≤ 0.3	0.010	mg/L	2023-04-25	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2023-04-25	
Magnesium, total	110	None Required	0.010	mg/L	2023-04-25	
Manganese, total	0.276	MAC = 0.12	0.00020	mg/L	2023-04-25	
Mercury, total	0.000018	MAC = 0.001	0.000010	mg/L	2023-04-24	
Molybdenum, total	0.00857	N/A	0.00010	mg/L	2023-04-25	
Nickel, total	0.00097	N/A	0.00040	mg/L	2023-04-25	
Potassium, total	8.28	N/A	0.10	mg/L	2023-04-25	
Selenium, total	0.00721	MAC = 0.05	0.00050	mg/L	2023-04-25	
Sodium, total	124	AO ≤ 200	0.10	mg/L	2023-04-25	
Strontium, total	0.202	MAC = 7	0.0010	mg/L	2023-04-25	
Uranium, total	0.00709	MAC = 0.02	0.000020	mg/L	2023-04-25	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2023-04-25	
olatile Organic Compounds (VOC) Benzene	< 0.5	MAC = 5	0.5 0.0010	µg/L ma/l	2023-04-27 2023-04-27	
Bromodichloromethane	< 0.0010		and the same of the same of		2023-04-27	
Bromodichloromethane	< 1.0	N/A	1.0 0.0010		2023-04-27	
Bromoform	< 0.0010	N/A	1.0		2023-04-27	
Bromoform	< 1.0	N/A			2023-04-27	-
Carbon tetrachloride	< 0.5	MAC = 2		μg/L	2023-04-27	22
Chlorobenzene	< 1.0	AO ≤ 30	and the second section of the party	μg/L	2023-04-27	
Chloroethane	< 2.0	N/A	0.0010	μg/L	2023-04-27	
Chloroform	< 0.0010	N/A			2023-04-27	
Chloroform	< 1.0	N/A		µg/L	2023-04-27	
Dibromochloromethane	< 0.0010	N/A	0.0010		2023-04-27	
Dibromochloromethane	< 1.0	N/A	and the second of	μg/L	2023-04-27	-
1,2-Dibromoethane	< 0.3	N/A		μg/L	2023-04-27	-
Dibromomethane	< 1.0	N/A		µg/L	2023-04-27	
1,2-Dichlorobenzene	< 0.5	AO ≤ 3		μg/L	2023-04-27	
1,3-Dichlorobenzene	< 1.0	N/A	1.0		2023-04-27	100
1,4-Dichlorobenzene	< 1.0	AO ≤ 1		μg/L	2023-04-27	-
1,1-Dichloroethane	< 1.0	N/A		µg/L	2023-04-27	
1,2-Dichloroethane	< 1.0	MAC = 5	F (10)	μg/L	2023-04-27	
1,1-Dichloroethylene	< 1.0	MAC = 14		μg/L	2023-04-27	
cis-1,2-Dichloroethylene	< 1.0	N/A		μg/L	2023-04-27	
trans-1,2-Dichloroethylene	< 1.0	N/A		μg/L	2023-04-27	
Dichloromethane	< 3.0	MAC = 50		µg/L	2023-04-27	-
1,2-Dichloropropane	< 1.0	N/A	1.0	μg/L	2023-04-27	



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100 Mile House, District of Drinking Water - Chemistry

WORK ORDER

23D2106

REPORTED

						O 1161
Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
/TP - Raw Water Wells 5 & 6 (23D2106-0	1)   Matrix: Water	Sampled: 2023-04-	-19 08:35, C	ontinued		
olatile Organic Compounds (VOC), Continue	ed					
1,3-Dichloropropene (cis + trans)	< 1.0	N/A		μg/L	2023-04-27	
Ethylbenzene	< 1.0	AO ≤ 1.6		μg/L	2023-04-27	
Methyl tert-butyl ether	< 1.0	AO ≤ 15	1.0	µg/L	2023-04-27	
Styrene	< 1.0	N/A	1.0	μg/L	2023-04-27	
1,1,2,2-Tetrachloroethane	< 0.5	N/A	0.5	μg/L	2023-04-27	
Tetrachloroethylene	< 1.0	MAC = 10	1.0	µg/L	2023-04-27	
Toluene	< 1.0	MAC = 60	1.0	µg/L	2023-04-27	
1,1,1-Trichloroethane	< 1.0	N/A	1.0	μg/L	2023-04-27	
1,1,2-Trichloroethane	< 1.0	N/A	1.0	μg/L	2023-04-27	
Trichloroethylene	< 1.0	MAC = 5	1.0	μg/Ľ	2023-04-27	
Trichlorofluoromethane	< 1.0	N/A	1.0	μg/L	2023-04-27	
Vinyl chloride	< 1.0	MAC = 2	1.0	µg/L	2023-04-27	
Xylenes (total)	< 2.0	AO ≤ 20	2.0	μg/L	2023-04-27	-
Surrogate: Toluene-d8	118	-1) -100 5	70-130	%	2023-04-27	
Surrogate: 4-Bromofluorobenzene	95		70-130	%	2023-04-27	
Surrogate: 1,4-Dichlorobenzene-d4	88		70-130	%	2023-04-27	
Public Works Yard (23D2106-02)   Matrix:	Water   Sampled	: 2023-04-19 09:05				
			0.40		2023 04 20	_
	108	AO ≤ 250		mg/L	2023-04-20	
Anions	108 0.11	AO ≤ 250 MAC = 1.5	0.10	mg/L	2023-04-20	
A <i>nions</i> Chloride	108 0.11 0.596	AO ≤ 250 MAC = 1.5 MAC = 10	0.10 0.010	mg/L mg/L	2023-04-20 2023-04-20	
Anions Chloride Fluoride	108 0.11 0.596 < 0.010	AO ≤ 250 MAC = 1.5 MAC = 10 MAC = 1	0.10 0.010 0.010	mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20	
Anions Chloride Fluoride Nitrate (as N)	108 0.11 0.596	AO ≤ 250 MAC = 1.5 MAC = 10	0.10 0.010 0.010	mg/L mg/L	2023-04-20 2023-04-20	
Anions Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate	108 0.11 0.596 < 0.010 118	AO ≤ 250 MAC = 1.5 MAC = 10 MAC = 1 AO ≤ 500	0.10 0.010 0.010 1.0	mg/L mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20 2023-04-20	
Anions Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate	108 0.11 0.596 < 0.010	$AO \le 250$ $MAC = 1.5$ $MAC = 10$ $MAC = 1$ $AO \le 500$ $MAC = 0.1$	0.10 0.010 0.010 1.0	mg/L mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20 2023-04-20 N/A	
Anions Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters	108 0.11 0.596 < 0.010 118	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  MAC = 0.1  None Required	0.10 0.010 0.010 1.0 0.00400 0.500	mg/L mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20 2023-04-20 N/A N/A	OT6.
Anions Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Total Trihalomethanes	108 0.11 0.596 < 0.010 118	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  MAC = 0.1  None Required  N/A	0.10 0.010 0.010 1.0 0.00400 0.500	mg/L mg/L mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20 2023-04-20 N/A N/A 2023-04-26	CT6
Anions Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Total Trihalomethanes Hardness, Total (as CaCO3)	108 0.11 0.596 < 0.010 118 0.0281 622	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  MAC = 0.1  None Required	0.10 0.010 0.010 1.0 0.00400 0.500	mg/L mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20 2023-04-20 N/A N/A	CT6
Anions Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Total Trihalomethanes Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved	108 0.11 0.596 < 0.010 118 0.0281 622 0.8	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  MAC = 0.1  None Required  N/A  AO ≤ 500	0.10 0.010 0.010 1.0 0.00400 0.500 -5.0	mg/L mg/L mg/L mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20 2023-04-20 N/A N/A 2023-04-26 N/A	CT6
Anions Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Total Trihalomethanes Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved	108 0.11 0.596 < 0.010 118 0.0281 622 0.8 869	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  MAC = 0.1  None Required  N/A  AO ≤ 500	0.10 0.010 0.010 1.0 0.00400 0.500 -5.0 10.0	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20 2023-04-20 N/A N/A 2023-04-26 N/A	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Total Trihalomethanes Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved General Parameters	108 0.11 0.596 < 0.010 118 0.0281 622 0.8 869	AO ≤ 250 MAC = 1.5 MAC = 10 MAC = 1 AO ≤ 500  MAC = 0.1 None Required N/A AO ≤ 500  N/A N/A	0.10 0.010 0.010 1.0 0.00400 0.500 -5.0 10.0	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20 2023-04-20 N/A N/A 2023-04-26 N/A 2023-04-21 2023-04-21	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Total Trihalomethanes Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved General Parameters Alkalinity, Total (as CaCO3)	108 0.11 0.596 < 0.010 118 0.0281 622 0.8 869	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  MAC = 0.1  None Required  N/A  AO ≤ 500	0.10 0.010 0.010 1.0 0.00400 0.500 -5.0 10.0	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20 2023-04-20 N/A N/A 2023-04-26 N/A 2023-04-21 2023-04-21 2023-04-21	CT6
Anions Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Total Trihalomethanes Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved General Parameters Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3)	108 0.11 0.596 < 0.010 118 0.0281 622 0.8 869	AO ≤ 250 MAC = 1.5 MAC = 10 MAC = 1 AO ≤ 500  MAC = 0.1 None Required N/A AO ≤ 500  N/A N/A	0.10 0.010 0.010 1.0 0.00400 0.500 -5.0 10.0 1.0 1.0	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20 2023-04-20 N/A N/A 2023-04-26 N/A 2023-04-21 2023-04-21 2023-04-21 2023-04-21	CT6
Anions Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Total Trihalomethanes Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved General Parameters Alkalinity, Total (as CaCO3) Alkalinity, Bicarbonate (as CaCO3)	108 0.11 0.596 < 0.010 118 0.0281 622 0.8 869 541 < 1.0 541	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  MAC = 0.1  None Required  N/A  AO ≤ 500  N/A  N/A  N/A  N/A  N/A  N/A	0.10 0.010 0.010 1.0 0.00400 0.500 -5.0 10.0 1.0 1.0 1.0	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20 2023-04-20 N/A N/A 2023-04-26 N/A 2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-21	CT6
Anions Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Total Trihalomethanes Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved General Parameters Alkalinity, Total (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3)	108 0.11 0.596 < 0.010 118 0.0281 622 0.8 869 541 < 1.0 541 < 1.0	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  MAC = 0.1  None Required  N/A  AO ≤ 500  N/A  N/A  N/A  N/A  N/A  N/A  NONE Required	0.10 0.010 0.010 1.0 0.00400 0.500 -5.0 10.0 1.0 1.0 1.0 0.050	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20 2023-04-20 N/A N/A 2023-04-26 N/A 2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-21	CT6
Anions Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Total Trihalomethanes Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved General Parameters Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3) Alkalinity, Hydroxide (as CaCO3)	108 0.11 0.596 < 0.010 118 0.0281 622 0.8 869 541 < 1.0 541 < 1.0 < 1.0	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  MAC = 0.1  None Required  N/A  AO ≤ 500  N/A  N/A  N/A  N/A  N/A  N/A	0.10 0.010 0.010 1.0 0.00400 0.500 -5.0 10.0 1.0 1.0 1.0 0.050 0.550	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20 2023-04-20 2023-04-26 N/A 2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-20 2023-04-20	CT6
Anions Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Total Trihalomethanes Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved General Parameters Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Ammonia, Total (as N)	108 0.11 0.596 < 0.010 118 0.0281 622 0.8 869 541 < 1.0 541 < 1.0 < 1.0 0.174	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  MAC = 0.1  None Required  N/A  AO ≤ 500  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N	0.10 0.010 0.010 1.0 0.00400 0.500 -5.0 10.0 1.0 1.0 0.050 0.550	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20 2023-04-20 2023-04-26 N/A 2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-20 2023-04-20 2023-04-20	CT6
Fluoride Nitrate (as N) Nitrite (as N) Sulfate  Calculated Parameters Total Trihalomethanes Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved  General Parameters  Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Ammonia, Total (as N) Carbon, Total Organic	108 0.11 0.596 < 0.010 118 0.0281 622 0.8 869 541 < 1.0 541 < 1.0 < 1.0 0.174 3.75	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  MAC = 0.1  None Required  N/A  AO ≤ 500  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N	0.10 0.010 0.010 1.0 0.00400 0.500 -5.0 10.0 1.0 1.0 0.050 0.550	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-04-20 2023-04-20 2023-04-20 2023-04-20 2023-04-26 N/A 2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-20 2023-04-20	CT6



REPORTED TO PROJECT

100 Mile House, District of Drinking Water - Chemistry

WORK ORDER

23D2106

REPORTED

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
ublic Works Yard (23D2106-02)   Matri	x: Water   Sampled	: 2023-04-19 09:05,	Continued			
eneral Parameters, Continued						
рН	7.92	7.0-10.5	0.10	pH units	2023-04-21	HT2
Phosphorus, Total (as P)	0.0416	N/A	0.0050	mg/L	2023-04-21	
Temperature, at pH	22.0	N/A		°C	2023-04-21	HT2
Turbidity	< 0.10	OG < 1	0.10	NTU	2023-04-21	
aloacetic Acids						
	- 0 0000	NI/A	0.0020	ma/l	2023-04-24	
Monochloroacetic Acid	< 0.0020	N/A	0.0020		2023-04-24	
Monobromoacetic Acid	0.0075	N/A	0.0020		2023-04-24	
Dichloroacetic Acid	0.0043	N/A			2023-04-24	
Trichloroacetic Acid	0.0020	N/A	0.0020	and the same of the same of the same of	2023-04-24	
Dibromoacetic Acid	0.0038	N/A	0.0020	and the second second	N/A	-
Total Haloacetic Acids (HAA5)	0.0176	MAC = 0.08	0.00200 70-130		2023-04-24	
Surrogate: 2-Bromopropionic Acid	123		70-130	70	2023-04-24	
otal Metals						
Aluminum, total	< 0.0050	OG < 0.1	0,0050		2023-04-25	
Antimony, total	< 0.00020	MAC = 0.006	0.00020		2023-04-25	
Arsenic, total	0.00145	MAC = 0.01	0.00050	mg/L	2023-04-25	
Barium, total	0.0116	MAC = 2	0.0050		2023-04-25	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-04-25	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010	mg/L	2023-04-25	
Calcium, total	67.3	None Required	0.20	mg/L	2023-04-25	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-04-25	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2023-04-25	
Copper, total	0.0846	MAC = 2	0.00040	mg/L	2023-04-25	
Iron, total	< 0.010	AO ≤ 0.3	0.010	mg/L	2023-04-25	
Lead, total	0.00040	MAC = 0.005	0.00020	mg/L	2023-04-25	
Magnesium, total	110	None Required	0.010	mg/L	2023-04-25	
Manganese, total	0.00048	MAC = 0.12	0.00020	mg/L	2023-04-25	
Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2023-04-24	
Molybdenum, total	0.00808	N/A	0.00010	mg/L	2023-04-25	
Nickel, total	0.00089	N/A	0.00040	mg/L	2023-04-25	
Potassium, total	8.11	N/A	0.10	mg/L	2023-04-25	
Selenium, total	0.00688	MAC = 0.05	0.00050		2023-04-25	
Sodium, total	124	AO ≤ 200		mg/L	2023-04-25	
Strontium, total	0.198	MAC = 7	0.0010		2023-04-25	7
Uranium, total	0.00705	MAC = 0.02	0.000020		2023-04-25	
Zinc, total	0.0116	AO ≤ 5	0.0040	mg/L	2023-04-25	
AMERICAN AND AND AND AND AND AND AND AND AND A	777		-			
olatile Organic Compounds (VOC)	~ n =	MAC = 5	0.5	μg/L	2023-04-27	
Benzene	< 0.5	N/A	0.0010		2023-04-27	
Bromodichloromethane	0.0095	N/A		μg/L	2023-04-27	
Bromodichloromethane Bromoform	9.5 0.0024	N/A	0.0010		2023-04-27	0.00



REPORTED TO **PROJECT** 

100 Mile House, District of Drinking Water - Chemistry **WORK ORDER** 

23D2106

REPORTED

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
ublic Works Yard (23D2106-02)   Matrix	: Water   Sampled:	2023-04-19 09:05,	Continued			
olatile Organic Compounds (VOC), Continu	ed					
Bromoform	2.4	N/A	1.0	μg/L	2023-04-27	
Carbon tetrachloride	< 0.5	MAC = 2	0.5	µg/L	2023-04-27	
Chlorobenzene	< 1.0	AO ≤ 30	1.0	μg/L	2023-04-27	
Chloroethane	< 2.0	N/A	2.0	μg/L	2023-04-27	
Chloroform	0.0070	N/A	0.0010	mg/L	2023-04-27	
Chloroform	7.0	N/A	1.0	μg/L	2023-04-27	
Dibromochloromethane	0.0092	N/A	0.0010	mg/L	2023-04-27	
Dibromochloromethane	9.2	N/A	1.0	μg/Ľ	2023-04-27	
1,2-Dibromoethane	< 0.3	N/A	0.3	μg/L	2023-04-27	
Dibromomethane	< 1.0	N/A	1.0	μg/L	2023-04-27	
1,2-Dichlorobenzene	< 0.5	AO ≤ 3	0.5	μg/L	2023-04-27	
1,3-Dichlorobenzene	< 1.0	N/A	1.0	μg/L	2023-04-27	
1,4-Dichlorobenzene	< 1.0	AO ≤ 1	1.0	μg/L	2023-04-27	
1,1-Dichloroethane	< 1.0	N/A	1.0	μg/L	2023-04-27	
1,2-Dichloroethane	< 1.0	MAC = 5	1.0	μg/L	2023-04-27	
1,1-Dichloroethylene	< 1.0	MAC = 14		μg/L	2023-04-27	
	< 1.0	N/A	1.0		2023-04-27	
cis-1,2-Dichloroethylene	< 1.0	N/A	1.0		2023-04-27	
trans-1,2-Dichloroethylene	< 3.0	MAC = 50	3.0		2023-04-27	-51 55
Dichloromethane	< 1.0	N/A	1.0		2023-04-27	
1,2-Dichloropropane	< 1.0	N/A		μg/L	2023-04-27	
1,3-Dichloropropene (cis + trans)	< 1.0	AO ≤ 1.6	1.0	μg/L	2023-04-27	
Ethylbenzene	< 1.0	AO ≤ 1.0	1.0	μg/L	2023-04-27	
Methyl tert-butyl ether	< 1.0	N/A	1.0		2023-04-27	
Styrene	< 0.5	N/A	0.5		2023-04-27	
1,1,2,2-Tetrachloroethane	< 1.0	MAC = 10	1.0		2023-04-27	
Tetrachloroethylene	and the second of	MAC = 60	1.0	- 7	2023-04-27	
Toluene	< 1.0	N/A	1.0		2023-04-27	
1,1,1-Trichloroethane	< 1.0		1.0		2023-04-27	707
1,1,2-Trichloroethane	< 1.0	N/A MAC = 5	The second second	μg/L	2023-04-27	
Trichloroethylene	< 1.0		1.0	-	2023-04-27	
Trichlorofluoromethane	< 1.0	N/A		μg/L μg/L	2023-04-27	
Vinyl chloride	< 1.0	MAC = 2		μg/L μg/L	2023-04-27	
Xylenes (total)	< 2.0	AO ≤ 20	11		2023-04-27	
Surrogate: Toluene-d8	98		70-130		2023-04-27	8 8
Surrogate: 4-Bromofluorobenzene	95		70-130		2023-04-27	
Surrogate: 1,4-Dichlorobenzene-d4	90	4 - 19	70-130	%	2020-04-21	
odge (23D2106-03)   Matrix: Water   Sa	mpled: 2023-04-19	09:20				
Anions						
Chloride	113	AO ≤ 250	0.10	mg/L	2023-04-20	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2023-04-20	
Nitrate (as N)	0.579	MAC = 10		mg/L	2023-04-20	Page 6



REPORTED TO PROJECT

100 Mile House, District of Drinking Water - Chemistry WORK ORDER REPORTED

23D2106 2023-04-28 14:29

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Lodge (23D2106-03)   Matrix: Water   San	npled: 2023-04-19	09:20, Continued				
Anions, Continued						
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2023-04-20	
Sulfate	120	AO ≤ 500	1.0	mg/L	2023-04-20	
Calculated Parameters						
Total Trihalomethanes	0.0297	MAC = 0.1	0.00400	mg/L	N/A	
Hardness, Total (as CaCO3)	648	None Required	0.500	mg/L	N/A	
Langelier Index	0.9	N/A	-5.0		2023-04-26	CT6
Solids, Total Dissolved	892	AO ≤ 500	10.0	mg/L	N/A	
General Parameters						:3
Alkalinity, Total (as CaCO3)	547	N/A	1.0	mg/L	2023-04-21	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0	mg/L	2023-04-21	
Alkalinity, Bicarbonate (as CaCO3)	547	N/A	1.0	mg/L	2023-04-21	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0	mg/L	2023-04-21	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0	mg/L	2023-04-21	
Ammonia, Total (as N)	0.257	None Required	0.050	mg/L	2023-04-20	
Carbon, Total Organic	3.95	N/A	0.50	mg/L	2023-04-20	
Colour, True	< 5.0	AO ≤ 15	5.0	CU	2023-04-22	
Conductivity (EC)	1550	N/A	2.0	μS/cm	2023-04-21	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2023-04-21	
pH	7.91	7.0-10.5	0.10	pH units	2023-04-21	HT2
Phosphorus, Total (as P)	0.0419	N/A	0.0050	mg/L	2023-04-21	
Temperature, at pH	22.2	N/A		°C	2023-04-21	HT2
Turbidity	< 0.10	OG < 1	0.10	NTU	2023-04-21	
Haloacetic Acids						
	< 0.0020	N/A	0.0020	mg/L	2023-04-24	
Monochloroacetic Acid	0.0045	N/A	0.0020		2023-04-24	
Monobromoacetic Acid	0.0030	N/A	0.0020		2023-04-24	
Dichloroacetic Acid	< 0.0020	N/A	0.0020	-	2023-04-24	
Trichloroacetic Acid	0.0020	N/A	0.0020		2023-04-24	
Dibromoacetic Acid	0.0034	MAC = 0.08	0.00200		N/A	100
Total Haloacetic Acids (HAA5)	126	WING CIGO	70-130		2023-04-24	
Surrogate: 2-Bromopropionic Acid	120					
Total Metals	< 0.0050	OG < 0.1	0.0050	mg/L	2023-04-25	
Aluminum, total	< 0.0000	MAC = 0.006	0.00020		2023-04-25	0 :::
Antimony, total		MAC = 0.000	0.00050		2023-04-25	
Arsenic, total	0.00144	MAC = 2	0.0050	The state of the s	2023-04-25	30-0-0
Barium, total	0.0128	MAC = 5	0.0500	100	2023-04-25	
Boron, total	< 0.0500	MAC = 0.007	0.000010		2023-04-25	
Cadmium, total	< 0.000010	to the second second		mg/L	2023-04-25	
Calcium, total	71.5	None Required	0.00050		2023-04-25	
Chromium, total	< 0.00050	MAC = 0.05	0.00050		2023-04-25	
Cobalt, total	< 0.00010	N/A	0.00010	my/L	2020-04-20	



REPORTED TO PROJECT

100 Mile House, District of Drinking Water - Chemistry WORK ORDER

23D2106

REPORTED

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
odge (23D2106-03)   Matrix: Water   Sa	mpled: 2023-04-19	09:20, Continued				
otal Metals, Continued						
Copper, total	0.0837	MAC = 2	0,00040	mg/L	2023-04-25	
Iron, total	< 0.010	AO ≤ 0.3	0.010	mg/L	2023-04-25	
Lead, total	0.00058	MAC = 0.005	0.00020	mg/L	2023-04-25	
and the second of	114	None Required	0.010	mg/L	2023-04-25	
Magnesium, total	0.00042	MAC = 0.12	0.00020	mg/L	2023-04-25	
Manganese, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2023-04-24	
Mercury, total	0.00826	N/A	0.00010	mg/L	2023-04-25	
Molybdenum, total	0.00025	N/A	0.00040	mg/L	2023-04-25	
Nickel, total	8.34	N/A		mg/L	2023-04-25	_
Potassium, total	0.00710	MAC = 0.05	0.00050		2023-04-25	
Selenium, total	129	AO ≤ 200		mg/L	2023-04-25	
Sodium, total	0.207	MAC = 7	0.0010		2023-04-25	
Strontium, total	0.00721	MAC = 0.02	0.000020		2023-04-25	
Uranium, total	0.00721	AO ≤ 5	0.0040		2023-04-25	
Zinc, total	0.0076	A0 2 3	0.0010	5-		
olatile Organic Compounds (VOC)						
Benzene	< 0.5	MAC = 5	0.5	μg/L	2023-04-27	
Bromodichloromethane	0.0095	N/A	0.0010	mg/L	2023-04-27	
Bromodichloromethane	9.5	N/A	1.0	µg/L	2023-04-27	
Bromoform	0.0023	N/A	0.0010	mg/L	2023-04-27	
Bromoform	2.3	N/A	1.0	μg/L	2023-04-27	
the second of th	< 0.5	MAC = 2	0.5	μg/L	2023-04-27	
Carbon tetrachloride	< 1.0	AO ≤ 30		μg/L	2023-04-27	
Chlorobenzene	< 2.0	N/A		µg/L	2023-04-27	
Chloroethane	0.0074	N/A	0.0010		2023-04-27	
Chloroform	7.4	N/A		μg/L	2023-04-27	
Chloroform	0.0105	N/A	0.0010		2023-04-27	
Dibromochloromethane	10.5	N/A		μg/L	2023-04-27	
Dibromochloromethane	< 0.3	N/A		μg/L	2023-04-27	
1,2-Dibromoethane	< 1.0	N/A		μg/L	2023-04-27	
Dibromomethane		AO ≤ 3		μg/L	2023-04-27	
1,2-Dichlorobenzene	< 0.5	N/A		μg/L	2023-04-27	-
1,3-Dichlorobenzene	< 1.0			μg/L	2023-04-27	
1,4-Dichlorobenzene	< 1.0	AO ≤ 1 N/A	-	, μg/L ) μg/L	2023-04-27	
1,1-Dichloroethane	< 1.0	MAC = 5		μg/L ) μg/L	2023-04-27	
1,2-Dichloroethane	< 1.0			, μg/L ) μg/L	2023-04-27	
1,1-Dichloroethylene	< 1.0	MAC = 14		, μg/L ) μg/L	2023-04-27	
cis-1,2-Dichloroethylene	< 1.0	N/A	1.0		2023-04-27	
trans-1,2-Dichloroethylene	< 1.0	N/A		) μg/L	2023-04-27	
Dichloromethane	< 3.0	MAC = 50			2023-04-27	
1,2-Dichloropropane	< 1.0	N/A	1.0		2023-04-27	
1,3-Dichloropropene (cis + trans)	< 1.0	N/A		) µg/L	2023-04-27	
Ethylbenzene	< 1.0	AO ≤ 1.6	1,0	) µg/∟	2023-04-27	



REPORTED TO **PROJECT** 

100 Mile House, District of

Drinking Water - Chemistry

**WORK ORDER** REPORTED

23D2106

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
.odge (23D2106-03)   Matrix: Water   Sam	pled: 2023-04-19	09:20, Continued				
/olatile Organic Compounds (VOC), Continue	d					
Styrene	< 1.0	N/A	1.0	μg/L	2023-04-27	
1,1,2,2-Tetrachloroethane	< 0.5	N/A	0.5	μg/L	2023-04-27	
Tetrachloroethylene	< 1.0	MAC = 10	1.0	μg/L	2023-04-27	
Toluene	< 1.0	MAC = 60	1.0	µg/L	2023-04-27	
1,1,1-Trichloroethane	< 1.0	N/A		μg/L	2023-04-27	
1,1,2-Trichloroethane	< 1.0	N/A		μg/L	2023-04-27	
Trichloroethylene	< 1.0	MAC = 5	1.0	µg/L	2023-04-27	
Trichlorofluoromethane	< 1.0	N/A		μg/L	2023-04-27	
and the second of the second o	< 1.0	MAC = 2		μg/L	2023-04-27	
Vinyl chloride	< 2.0	AO ≤ 20		μg/L	2023-04-27	
Xylenes (total)	87		70-130		2023-04-27	
Surrogate: Toluene-d8	90		70-130		2023-04-27	
Surrogate: 4-Bromofluorobenzene	87		70-130		2023-04-27	
Surrogate: 1,4-Dichlorobenzene-d4	- 07		70 100	/4		
Chloride	109	AO ≤ 250	0.10	mg/L	2023-04-20	-
Anions			0.40		2022 04 20	
This are the second to the second to the	0.10	MAC = 1.5		mg/L	2023-04-20	
Fluoride	0.517	MAC = 10		mg/L	2023-04-20	
Nitrate (as N)	< 0.010	MAC = 1		mg/L	2023-04-20	
Nitrite (as N)	117	AO ≤ 500		mg/L	2023-04-20	-
Sulfate		7.0 2 000				
Calculated Parameters	0.0504	MAC = 0.1	0.00400	ma/l	N/A	
Total Trihalomethanes	0.0594			mg/L	N/A	-
Hardness, Total (as CaCO3)	613	None Required		IIIg/L		
		the same of the same of the same of			2023-04-26	CT6
Langelier Index	1.2	N/A	-5.0		2023-04-26	CT6
	1.2 880	the same of the same of the same of	-5.0	mg/L	2023-04-26 N/A	СТ6
Langelier Index		N/A	-5.0 10.0		N/A	СТ6
Langelier Index Solids, Total Dissolved		N/A	-5.0 10.0	mg/L	N/A 2023-04-21	CT6
Langelier Index Solids, Total Dissolved  General Parameters Alkalinity, Total (as CaCO3)	880	N/A AO ≤ 500	-5.0 10.0		N/A 2023-04-21 2023-04-21	СТ6
Langelier Index Solids, Total Dissolved General Parameters	880 564	N/A AO ≤ 500 N/A	-5.0 10.0 1.0 1.0	mg/L mg/L mg/L	N/A 2023-04-21 2023-04-21 2023-04-21	CT6
Langelier Index Solids, Total Dissolved  General Parameters Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3)	564 < 1.0	N/A AO ≤ 500 N/A N/A	-5.0 10.0 1.0 1.0 1.0	mg/L mg/L mg/L mg/L	N/A 2023-04-21 2023-04-21 2023-04-21 2023-04-21	CT6
Langelier Index Solids, Total Dissolved  General Parameters Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3)	564 < 1.0 564	N/A AO ≤ 500 N/A N/A N/A	-5.0 10.0 1.0 1.0 1.0 1.0 1.0	mg/L mg/L mg/L mg/L mg/L	N/A 2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-21	CT6
Langelier Index Solids, Total Dissolved  General Parameters Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3)	564 < 1.0 564 < 1.0	N/A AO ≤ 500 N/A N/A N/A N/A	-5.0 10.0 1.0 1.0 1.0 1.0 1.0 0.050	mg/L mg/L mg/L mg/L mg/L mg/L	N/A  2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-20	CT6
Langelier Index Solids, Total Dissolved  General Parameters Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3) Alkalinity, Hydroxide (as CaCO3)	564 < 1.0 564 < 1.0 < 1.0	N/A AO ≤ 500 N/A N/A N/A N/A N/A	-5.0 10.0 1.0 1.0 1.0 1.0 1.0 0.050	mg/L mg/L mg/L mg/L mg/L mg/L	N/A  2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-20 2023-04-20	CT6
Langelier Index Solids, Total Dissolved  General Parameters  Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Ammonia, Total (as N) Carbon, Total Organic	564 < 1.0 564 < 1.0 < 1.0 < 0.050	N/A AO ≤ 500  N/A N/A N/A N/A N/A N/A N/A N/A NOne Required	-5.0 10.0 1.0 1.0 1.0 1.0 1.0 0.050 0.50	mg/L mg/L mg/L mg/L mg/L mg/L	N/A  2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-20 2023-04-20 2023-04-22	CT6
Langelier Index Solids, Total Dissolved  General Parameters  Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Ammonia, Total (as N) Carbon, Total Organic Colour, True	564 < 1.0 564 < 1.0 < 1.0 < 1.0 < 1.0 < 0.050 3.79	N/A AO ≤ 500  N/A N/A N/A N/A N/A N/A N/A N/A N/A N/	-5.0 10.0 1.0 1.0 1.0 1.0 0.050 0.50 5.0	mg/L mg/L mg/L mg/L mg/L mg/L cU µS/cm	N/A  2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-20 2023-04-20 2023-04-22 2023-04-21	CT6
Langelier Index Solids, Total Dissolved  General Parameters  Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Ammonia, Total (as N) Carbon, Total Organic Colour, True Conductivity (EC)	564 < 1.0 564 < 1.0 < 1.0 < 1.0 < 0.050 3.79 < 5.0	N/A AO ≤ 500  N/A N/A N/A N/A N/A N/A N/A None Required N/A AO ≤ 15	-5.0 10.0 1.0 1.0 1.0 1.0 0.050 0.50 5.0 0.0020	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	N/A  2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-20 2023-04-22 2023-04-21 2023-04-21 2023-04-21	
Langelier Index Solids, Total Dissolved  General Parameters  Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Ammonia, Total (as N) Carbon, Total Organic Colour, True Conductivity (EC) Cyanide, Total	564 < 1.0 564 < 1.0 < 1.0 < 1.0 < 0.050 3.79 < 5.0 1530	N/A AO ≤ 500  N/A N/A N/A N/A N/A N/A None Required N/A AO ≤ 15 N/A	-5.0 10.0 1.0 1.0 1.0 1.0 0.050 0.50 5.0 0.0020	mg/L mg/L mg/L mg/L mg/L mg/L cU µS/cm	N/A  2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-20 2023-04-22 2023-04-21 2023-04-21 2023-04-21 2023-04-21	CT6
Langelier Index Solids, Total Dissolved  General Parameters  Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Ammonia, Total (as N) Carbon, Total Organic Colour, True Conductivity (EC)	564 < 1.0 564 < 1.0 < 1.0 < 1.0 < 0.050 3.79 < 5.0 1530 < 0.0020	N/A AO ≤ 500  N/A N/A N/A N/A N/A N/A None Required N/A AO ≤ 15 N/A MAC = 0.2	-5.0 10.0 1.0 1.0 1.0 1.0 0.050 0.50 5.0 0.0020	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	N/A  2023-04-21 2023-04-21 2023-04-21 2023-04-21 2023-04-20 2023-04-22 2023-04-21 2023-04-21 2023-04-21	



REPORTED TO PROJECT

100 Mile House, District of Drinking Water - Chemistry

WORK ORDER REPORTED

23D2106 2023-04-28 14:29

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
Exeter Reservoir (23D2106-04)   Matrix	: Water   Sampled: 2	2023-04-19 09:00, C	ontinued			
General Parameters, Continued						
Turbidity	0.16	OG < 1	0.10	NTU	2023-04-21	
daloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-04-24	
Monobromoacetic Acid	< 0.0020	N/A	0.0020		2023-04-24	-
Dichloroacetic Acid	0.0180	N/A	0.0020	mg/L	2023-04-24	
Trichloroacetic Acid	0.0108	N/A	0.0020	mg/L	2023-04-24	
Dibromoacetic Acid	0.0040	N/A	0.0020	mg/L	2023-04-24	
Total Haloacetic Acids (HAA5)	0.0328	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	122		70-130	%	2023-04-24	-
otal Metals						
	0.0118	OG < 0.1	0.0050	mg/L	2023-04-25	
Aluminum, total	< 0.00020	MAC = 0.006	0.00020		2023-04-25	
Antimony, total	0.00020	MAC = 0.000	0.00050		2023-04-25	
Arsenic, total	0.00170	MAC = 2	0.0050		2023-04-25	
Barium, total	< 0.0500	MAC = 5	0.0500		2023-04-25	
Boron, total		MAC = 0.007	0.000010		2023-04-25	
Cadmium, total	< 0.000010	None Required	0.20		2023-04-25	7 7
Calcium, total	64.9	MAC = 0.05	0.00050		2023-04-25	
Chromium, total	< 0.00050	N/A	0.00030		2023-04-25	
Cobalt, total	< 0.00010		0.00040		2023-04-25	
Copper, total	0.00583	MAC = 2	0.00040		2023-04-25	
Iron, total	0.131	AO ≤ 0.3	0.00020		2023-04-25	( in )
Lead, total	< 0.00020	MAC = 0.005			2023-04-25	
Magnesium, total	109	None Required	0.010		2023-04-25	-
Manganese, total	0.00158	MAC = 0.12	0.00020		2023-04-24	
Mercury, total	< 0.000010	MAC = 0.001	0.000010		2023-04-25	
Molybdenum, total	0.00838	N/A	0.00010		2023-04-25	
Nickel, total	0.00071	N/A	0.00040		2023-04-25	
Potassium, total	8.27	N/A		mg/L	2023-04-25	
Selenium, total	0.00694	MAC = 0.05	0.00050			-
Sodium, total	125	AO ≤ 200		mg/L	2023-04-25	
Strontium, total	0.192	MAC = 7	0.0010		2023-04-25	
Uranium, total	0.00712	MAC = 0.02	0.000020		2023-04-25	
Zinc, total	0.0046	AO ≤ 5	0.0040	mg/L	2023-04-25	
Volatile Organic Compounds (VOC)						
Benzene	< 0.5	MAC = 5	0.5	μg/L	2023-04-27	
Bromodichloromethane	0.0153	N/A	0.0010	mg/L	2023-04-27	
Bromodichloromethane	15.3	N/A	1.0	) µg/L	2023-04-27	
Bromoform	0.0017	N/A	0.0010	) mg/L	2023-04-27	
	1.7	N/A	1.0	) µg/L	2023-04-27	
Bromoform Carbon totraphloride	< 0.5	MAC = 2		pg/L	2023-04-27	1- 1-
Carbon tetrachloride Chlorobenzene	< 1.0	AO ≤ 30		) µg/L	2023-04-27	



REPORTED TO **PROJECT** 

100 Mile House, District of Drinking Water - Chemistry WORK ORDER

23D2106

REPORTED

2023-04-28 14:29

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Exeter Reservoir (23D2106-04)   Matrix:	Water   Sampled: 2	023-04-19 09:00, C	ontinued			
Volatile Organic Compounds (VOC), Continu	ued					
Chloroethane	< 2.0	N/A	A read to the same of the same	μg/L	2023-04-27	
Chloroform	0.0329	N/A	0.0010		2023-04-27	
Chloroform	32.9	N/A	1.0	μg/L	2023-04-27	
Dibromochloromethane	0.0096	N/A	0.0010		2023-04-27	
Dibromochloromethane	9.6	N/A	1.0	μg/L	2023-04-27	
1,2-Dibromoethane	< 0.3	N/A		μg/L	2023-04-27	
Dibromomethane	< 1.0	N/A	1.0	μg/L	2023-04-27	
1.2-Dichlorobenzene	< 0.5	AO ≤ 3	0.5	μg/L	2023-04-27	
1,3-Dichlorobenzene	< 1.0	N/A	1.0	μg/L	2023-04-27	
1.4-Dichlorobenzene	< 1.0	AO ≤ 1	1.0	μg/L	2023-04-27	
1,1-Dichloroethane	< 1.0	N/A	1.0	μg/L	2023-04-27	
1,2-Dichloroethane	< 1.0	MAC = 5	1.0	μg/L	2023-04-27	
1,1-Dichloroethylene	< 1.0	MAC = 14	1.0	μg/L	2023-04-27	
cis-1,2-Dichloroethylene	< 1.0	N/A	1.0	μg/L	2023-04-27	
trans-1,2-Dichloroethylene	< 1.0	N/A	1.0	µg/L	2023-04-27	
	< 3.0	MAC = 50	3.0	µg/L	2023-04-27	
Dichloromethane	< 1.0	N/A	1.0	μg/L	2023-04-27	
1,2-Dichloropropane	< 1.0	N/A	1.0	μg/L	2023-04-27	
1,3-Dichloropropene (cis + trans)	< 1.0	AO ≤ 1.6	1.0	μg/L	2023-04-27	
Ethylbenzene	< 1.0	AO ≤ 15	1.0		2023-04-27	
Methyl tert-butyl ether	< 1.0	N/A	1.0		2023-04-27	
Styrene	< 0.5	N/A	and the same of th	μg/L	2023-04-27	
1,1,2,2-Tetrachloroethane	< 1.0	MAC = 10		μg/L	2023-04-27	
Tetrachloroethylene	< 1.0	MAC = 60	The latest terminal t	μg/L	2023-04-27	
Toluene	< 1.0	N/A		μg/L	2023-04-27	
1,1,1-Trichloroethane	< 1.0	N/A		µg/L	2023-04-27	
1,1,2-Trichloroethane	< 1.0	MAC = 5	1.0	24-11	2023-04-27	
Trichloroethylene	< 1.0	N/A		μg/L	2023-04-27	
Trichlorofluoromethane		MAC = 2		μg/L	2023-04-27	
Vinyl chloride	< 1.0		2.0		2023-04-27	-
Xylenes (total)	< 2.0	AO ≤ 20	70-130	µg/∟ %	2023-04-27	
Surrogate: Toluene-d8	119		70-130	%	2023-04-27	
Surrogate: 4-Bromofluorobenzene	91			%	2023-04-27	
Surrogate: 1,4-Dichlorobenzene-d4	86		70-130	70	2023-07-27	# II

#### Sample Qualifiers:

Results were based on lab temperature & lab pH, CT6

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





# **APPENDIX 1: SUPPORTING INFORMATION**

REPORTED TO PROJECT

100 Mile House, District of Drinking Water - Chemistry

WORK ORDER REPORTED 23D2106 2023-04-28 14:29

Analysis Description	Method Ref.	Technique	Accredited	Location
Alkalinity in Water	SM 2320 B* (2021)	Titration with H2SO4	✓	Kelowna
Ammonia, Total in Water	SM 4500-NH3 G* (2021)	Automated Colorimetry (Phenate)	✓	Kelowna
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Carbon, Total Organic in Water	SM 5310 B (2022)	Combustion, Infrared CO2 Detection	<b>~</b>	Kelowna
Colour, True in Water	SM 2120 C (2021)	Spectrophotometry (456 nm)	✓	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	<b>√</b>	Kelowna
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	<b>✓</b>	Richmond
Hardness in Water	SM 2340 B* (2021)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
Langelier Index in Water	SM 2330 B (2021)	Calculation		N/A
Mercury, total in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	<b>√</b>	Richmond
pH in Water	SM 4500-H+ B (2021)	Electrometry	<b>√</b>	Kelowna
Phosphorus, Total in Water	SM 4500-P B.5* (2011) / SM 4500-P F (2021)	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	✓	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+HCI Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	1	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna
Volatile Organic Compounds in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond

#### Glossary of Terms:

RL

<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CU	Colour Units (referenced against a platinum cobalt standard)
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NITTI	Nee helemotric Turbidity i Inite

NTU Nephelometric Turbidity Units
OG Operational Guideline (treated water)
pH units pH < 7 = acidic, ph > 7 = basic

Reporting Limit (default)

μg/L Micrograms per litre

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



REPORTED TO PROJECT

100 Mile House, District of Drinking Water - Chemistry

WORK ORDER REPORTED

23F2758 2023-06-29 08:36

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
Noore Sample Station (23F2758-01)   M	atrix: Water   Sampl	ed: 2023-06-20 10	:45			
Calculated Parameters						
Total Trihalomethanes	0.0580	MAC = 0.1	0.00400	mg/L	N/A	-
olatile Organic Compounds (VOC)						
Bromodichloromethane	0.0182	N/A	0.0010	mg/L	2023-06-22	
Bromoform	0.0045	N/A	0.0010	mg/L	2023-06-22	
Chloroform	0.0188	N/A	0.0010	mg/L	2023-06-22	
Dibromochloromethane	0.0166	N/A	0.0010	mg/L	2023-06-22	
Surrogate: Toluene-d8	70		70-130	%	2023-06-22	
Surrogate: 4-Bromofluorobenzene	72		70-130	%	2023-06-22	
NTP (23F2758-02)   Matrix: Water   Sam	pled: 2023-06-20 12	2:00				
General Parameters						
UV Transmittance @ 254nm	88.9	N/A	0.10	% T	2023-06-23	



## APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO **PROJECT** 

100 Mile House, District of Drinking Water - Chemistry WORK ORDER

23F2758

**REPORTED** 

2023-06-29 08:36

Analysis Description	Method Ref.	Technique	Accredited	Location
Transmittance at 254 nm in	SM 5910 B* (2021)	Ultraviolet Absorption	✓	Kelowna
Water Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)		Richmond

#### Glossary of Terms:

RL	Reporting Limit (default)
% T	Percent Transmittance
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
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

#### General Comments:

The results in this report apply to the received 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. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. 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:bwhitehead@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.





#### CERTIFICATE OF ANALYSIS

REPORTED TO

100 Mile House, District of

Box 340 -385 Horse Lake Road 100 Mile House, BC V0K 2E0

**ATTENTION** 

Paul Donnelly

**PO NUMBER** 

**Drinking Water** 

**PROJECT PROJECT INFO** 

Drinking Water - Chemistry

**WORK ORDER** 

23G0520

**RECEIVED / TEMP** 

2023-07-05 08:30 / 6.7°C

REPORTED **COC NUMBER**  2023-07-10 20:44

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



We've Got Chemistry



Ahead of the Curve



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 important and expensive (whew) is VERY important. We know that too.

It's simple. We figure the more you working fun and enjoy with our the more engaged team members; likely you are to give us continued opportunities to support you.

Through research, regulation knowledge, and instrumentation, are your analytical centre for knowledge you need, technical 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 which

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REPORTED TO PROJECT

100 Mile House, District of Drinking Water - Chemistry WORK ORDER REPORTED 23G0520 2023-07-10 20:44

PROJECT Drinking Water - C					Avaluad	Qualifie
Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Public Works Yard (23G0520-01)   M	latrix: Water   Sampled	: 2023-07-04 12:40				
Calculated Parameters						
Hardness, Total (as CaCO3)	636	None Required	0.500	mg/L	N/A	
Total Metals						
Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2023-07-08	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-07-08	
Arsenic, total	0.00154	MAC = 0.01	0.00050	mg/L	2023-07-08	
Barium, total	0.0116	MAC = 2	0.0050	mg/L	2023-07-08	
Beryllium, total	< 0.00010	N/A	0.00010	mg/L	2023-07-08	
Bismuth, total	< 0.00010	N/A	0.00010	mg/L	2023-07-08	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-07-08	
	0.000016	MAC = 0.007	0.000010	mg/L	2023-07-08	
Cadmium, total	69.3	None Required	0.20	mg/L	2023-07-08	
Calcium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-07-08	
Chromium, total	< 0.00010	N/A	0.00010		2023-07-08	
Cobalt, total	0.116	MAC = 2	0.00040		2023-07-08	
Copper, total	< 0.010	AO ≤ 0.3		mg/L	2023-07-08	
Iron, total	0.00056	MAC = 0.005	0.00020		2023-07-08	
Lead, total		N/A	0.00010		2023-07-08	
Lithium, total	0.00466	None Required		mg/L	2023-07-08	
Magnesium, total	112		0.00020		2023-07-08	
Manganese, total	0.00225	MAC = 0.12	0.00020	107 (0.00)	2023-07-08	
Molybdenum, total	0.00824	N/A			2023-07-08	-
Nickel, total	0.00104	N/A	0.00040		2023-07-08	7 77
Phosphorus, total	< 0.050	N/A		mg/L	2023-07-08	
Potassium, total	7.72	N/A		mg/L	and the second of the second	
Selenium, total	0.00720	MAC = 0.05	0.00050		2023-07-08	
Silicon, total	10.7	N/A	- T-	mg/L	2023-07-08	
Silver, total	< 0.000050	None Required	0.000050		2023-07-08	
Sodium, total	123	AO ≤ 200	10 mm	mg/L	2023-07-08	
Strontium, total	0.197	MAC = 7	0.0010	mg/L	2023-07-08	
Sulfur, total	41.5	N/A	3.0	mg/L	2023-07-08	
Tellurium, total	< 0.00050	N/A	0.00050	mg/L	2023-07-08	
Thallium, total	< 0.000020	N/A	0.000020	mg/L	2023-07-08	
Thorium, total	< 0.00010	N/A	0.00010	mg/L	2023-07-08	
Tin, total	< 0.00020	N/A	0.00020	mg/L	2023-07-08	
	< 0.0050	N/A	0.0050	mg/L	2023-07-08	
Titanium, total	< 0.0010	N/A	0.0010	mg/L	2023-07-08	
Tungsten, total	0.00757	MAC = 0.02	0.000020		2023-07-08	10 TO 100
Uranium, total	< 0.0050	N/A		) mg/L	2023-07-08	
Vanadium, total	- 2.2				2023-07-08	
					2023-07-08	
Vanadium, total Zinc, total Zirconium, total	0.0095 0.00035	AO ≤ 5 N/A		mg/L	The same of the sa	

WTP - Raw Water Wells 5 & 6 (23G0520-02) | Matrix: Water | Sampled: 2023-07-04 12:55



REPORTED TO PROJECT

100 Mile House, District of Drinking Water - Chemistry WORK ORDER

23G0520

REPORTED

2023-07-10 20:44

Analyte	Result	Guideline	RL	Units	Analyzed Qualit
WTP - Raw Water Wells 5 & 6 (23G0	520-02)   Matrix: Water	Sampled: 2023-07	'-04 12:55, C	ontinued	
Calculated Parameters					
Hardness, Total (as CaCO3)	651	None Required	0.500	mg/L	N/A
Total Metals					
Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2023-07-08
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-07-08
Arsenic, total	0.00185	MAC = 0.01	0.00050	mg/L	2023-07-08
Barium, total	0.0131	MAC = 2	0.0050	mg/L	2023-07-08
Beryllium, total	< 0.00010	N/A	0.00010	mg/L	2023-07-08
Bismuth, total	< 0.00010	N/A	0.00010	mg/L	2023-07-08
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-07-08
Cadmium, total	< 0.000010	MAC = 0.007	0.000010	mg/L	2023-07-08
Calcium, total	68.3	None Required	0.20	mg/L	2023-07-08
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-07-08
Cobalt, total	0.00020	N/A	0.00010	mg/L	2023-07-08
Copper, total	0.00098	MAC = 2	0.00040	mg/L	2023-07-08
Iron, total	0.059	AO ≤ 0.3	0.010	mg/L	2023-07-08
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2023-07-08
Lithium, total	0.00497	N/A	0.00010	mg/L	2023-07-08
Magnesium, total	117	None Required	0.010	mg/L	2023-07-08
Manganese, total	0.289	MAC = 0.12	0.00020	mg/L	2023-07-08
Molybdenum, total	0.00865	N/A	0.00010	mg/L	2023-07-08
	0.00095	N/A	0.00040	mg/L	2023-07-08
Nickel, total	0.057	N/A	0.050	mg/L	2023-07-08
Phosphorus, total	7.91	N/A	0.10	mg/L	2023-07-08
Potassium, total	0.00768	MAC = 0.05	0.00050	mg/L	2023-07-08
Selenium, total	10.8	N/A	1.0	mg/L	2023-07-08
Silicon, total	< 0.000050	None Required	0.000050	mg/L	2023-07-08
Silver, total	120	AO ≤ 200	0.10	mg/L	2023-07-08
Sodium, total	0.196	MAC = 7	0.0010	mg/L	2023-07-08
Strontium, total	42.6	N/A	-	mg/L	2023-07-08
Sulfur, total	< 0.00050	N/A	0.00050		2023-07-08
Tellurium, total	< 0.000020	N/A	0.000020	-	2023-07-08
Thallium, total	< 0.00010	N/A	0.00010		2023-07-08
Thorium, total	< 0.00020	N/A	0.00020		2023-07-08
Tin, total	< 0.0050	N/A		mg/L	2023-07-08
Titanium, total	< 0.0000	N/A		mg/L	2023-07-08
Tungsten, total	0.00761	MAC = 0.02	0.000020	0.000	2023-07-08
Uranium, total	< 0.0050	N/A		) mg/L	2023-07-08
Vanadium, total	< 0.0030	AO ≤ 5		) mg/L	2023-07-08
Zinc, total Zirconium, total	0.00039	N/A	0.00010		2023-07-08





#### APPENDIX 1: SUPPORTING INFORMATION

**REPORTED TO** 100 Mile House, District of **PROJECT** 

Drinking Water - Chemistry

WORK ORDER

23G0520

REPORTED

2023-07-10 20:44

Analysis Description	Method Ref.	Technique	Accredited	Location
Hardness in Water	SM 2340 B* (2021)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
Total Metals in Water	EPA 200 2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

#### 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 <

ΑO Aesthetic Objective

MAC Maximum Acceptable Concentration (health based)

Milligrams per litre mg/L

OG Operational Guideline (treated water)

FPA United States Environmental Protection Agency Test Methods

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

#### **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

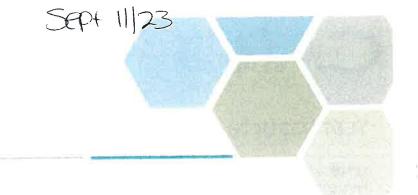
#### **General Comments:**

The results in this report apply to the received 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. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. 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:bwhitehead@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 quideline 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.





#### **CERTIFICATE OF ANALYSIS**

REPORTED TO

100 Mile House, District of

Box 340 -385 Horse Lake Road

100 Mile House, BC V0K 2E0

**ATTENTION** 

Paul Donnelly

PO NUMBER

**Drinking Water** 

PROJECT INFO

Drinking Water - Chemistry

**WORK ORDER** 

2311467

**RECEIVED / TEMP** 

2023-09-13 08:30 / 9.2°C

REPORTED

2023-09-21 10:48

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



We've Got Chemistry



Ahead of the Curve



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.

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.

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

Authorized By:

Brent Whitehead Account Manager M what



REPORTED TO PROJECT

100 Mile House, District of Drinking Water - Chemistry

WORK ORDER REPORTED

PROJECT Drinking Water - Chem	iioti y			REPORTED	2023-09-2	
Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
NTP - Before Cl2 (23l1467-01)   Matrix: V	Vater   Sampled: 2	2023-09-11 12:21				
Anions						
Chloride	93.4	AO ≤ 250	0.10	mg/L	2023-09-14	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2023-09-14	
Nitrate (as N)	0.256	MAC = 10	0.010	mg/L	2023-09-14	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2023-09-14	
Sulfate	98.5	AO ≤ 500	1.0	mg/L	2023-09-14	
Calculated Parameters						
Total Trihalomethanes	< 0.00400	MAC = 0.1	0.00400	mg/L	N/A	
Hardness, Total (as CaCO3)	621	None Required	0.500		N/A	
Langelier Index	0.8	N/A	-5.0		2023-09-18	СТ6
Solids, Total Dissolved	878	AO ≤ 500		mg/L	N/A	
General Parameters	· · · · · · · · · · · · · · · · · · ·					
Alkalinity, Total (as CaCO3)	621	N/A	1.0	mg/L	2023-09-14	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A		mg/L	2023-09-14	
Alkalinity, Bicarbonate (as CaCO3)	621	N/A		mg/L	2023-09-14	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A		mg/L	2023-09-14	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A		mg/L	2023-09-14	
Ammonia, Total (as N)	0.133	None Required	0.050		2023-09-14	
Carbon, Total Organic	3.22	N/A		mg/L	2023-09-19	
Colour, True	< 5.0	AO ≤ 15		CU	2023-09-14	
Conductivity (EC)	1500	N/A		μS/cm	2023-09-14	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020		2023-09-15	
pH	7.79	7.0-10.5		pH units	2023-09-14	HT2
Phosphorus, Total (as P)	0.0420	N/A	0.0050		2023-09-14	
Temperature, at pH	21.8	N/A	) - (	°C	2023-09-14	HT2
Turbidity	0.21	OG < 1	0.10	NTU	2023-09-14	
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	ma/L	2023-09-19	
Monobromoacetic Acid	< 0.0020	N/A	0.0020		2023-09-19	
Dichloroacetic Acid	< 0.0020	N/A	0.0020		2023-09-19	
Trichloroacetic Acid	< 0.0020	N/A	0.0020		2023-09-19	
Dibromoacetic Acid	< 0.0020	N/A	0.0020		2023-09-19	
Total Haloacetic Acids (HAA5)	< 0.00200	MAC = 0.08	0.00200		N/A	
Surrogate: 2-Bromopropionic Acid	95		70-130		2023-09-19	
Total Metals						
Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2023-09-16	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	the second section of the second	2023-09-16	
Arsenic, total	0.00150	MAC = 0.01	0.00050	95	2023-09-16	
Barium, total	0.0117	MAC = 2	0.0050		2023-09-16	100
Boron, total	< 0.0500	MAC = 5	0.0500		2023-09-16	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010		2023-09-16	



REPORTED TO PROJECT

100 Mile House, District of Drinking Water - Chemistry

WORK ORDER

2311467

REPORTED

2023-09-21 10:48

ROJECT Drinking Water - C	Hermon y					
Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
TP - Before Cl2 (23l1467-01)   Matri	x: Water   Sampled: 2	023-09-11 12:21, Co	ontinued			
otal Metals, Continued						
Calcium, total	68.2	None Required		mg/L	2023-09-16	
Chromium, total	< 0.00050	MAC = 0.05	0.00050		2023-09-16	
Cobalt, total	< 0.00010	N/A	0.00010		2023-09-16	
Copper, total	0.00092	MAC = 2	0.00040		2023-09-16	
Iron, total	< 0.010	AO ≤ 0.3	0.010		2023-09-16	
Lead, total	< 0.00020	MAC = 0.005	0.00020		2023-09-16	
Magnesium, total	109	None Required	0.010		2023-09-16	
Manganese, total	0.00473	MAC = 0.12	0.00020		2023-09-16	
Mercury, total	< 0.000010	MAC = 0.001	0.000010		2023-09-18	
Molybdenum, total	0.00805	N/A	0.00010	_ = -	2023-09-16	
Nickel, total	0.00120	N/A	0.00040	mg/L	2023-09-16	
Potassium, total	7.67	N/A	0.10	mg/L	2023-09-16	
Selenium, total	0.00699	MAC = 0.05	0.00050	mg/L	2023-09-16	
Sodium, total	121	AO ≤ 200	0.10	mg/L	2023-09-16	
Strontium, total	0.197	MAC = 7	0.0010	mg/L	2023-09-16	
Uranium, total	0.00764	MAC = 0.02	0.000020	mg/L	2023-09-16	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2023-09-16	
Benzene Bromodichloromethane	< 0.5 < 0.0010	MAC = 5 N/A	0.0010	μg/L mg/L	2023-09-16	
Bromodichloromethane	< 0.0010				2023-09-16	
Bromodichloromethane	< 1.0	N/A		µg/L	2023-09-16	
Bromoform	< 0.0010	N/A	0.0010		2023-09-16	
Bromoform	< 1.0	N/A		μg/L	2023-09-16	
Carbon tetrachloride	< 0.5	MAC = 2	0.5		2023-09-16	
Chlorobenzene	< 1.0	AO ≤ 30	1.0		2023-09-16	
Chloroethane	< 2.0	N/A		µg/L	2023-09-16	
Chloroform	< 0.0010	N/A	0.0010		2023-09-16	
Chloroform	< 1.0	N/A		μg/L	2023-09-16	
Dibromochloromethane	< 0.0010	N/A	0.0010		2023-09-16	
Dibromochloromethane	< 1.0	N/A		μg/L	2023-09-16	
1,2-Dibromoethane	< 0.3	N/A		μg/L "	i iii	
Dibromomethane	< 1.0	N/A		μg/L	2023-09-16 2023-09-16	
1,2-Dichlorobenzene	< 0.5	AO ≤ 3		μg/L	2023-09-16	
1,3-Dichlorobenzene	< 1.0	N/A	and the second section in the second	μg/L		
1,4-Dichlorobenzene	< 1.0	AO ≤ 1	and the second second second	μg/L	2023-09-16 2023-09-16	
1,1-Dichloroethane	< 1.0	N/A		μg/L		
1,2-Dichloroethane	< 1.0	MAC = 5	and the control of th	µg/L	2023-09-16	
1,1-Dichloroethylene	< 1.0	MAC = 14		μg/L	2023-09-16	
cis-1,2-Dichloroethylene	< 1.0	N/A		μg/L	2023-09-16	
trans-1,2-Dichloroethylene	< 1.0	N/A		µg/L	2023-09-16	
Dichloromethane	< 3.0	MAC = 50	3.0	Zest	2023-09-16	
1,2-Dichloropropane	< 1.0	N/A	1.0	µg/L	2023-09-16	



REPORTED TO 100 Mile House, District of PROJECT Drinking Water - Chemistry

WORK ORDER REPORTED

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
NTP - Before CI2 (23I1467-01)   Matrix: W	ater   Sampled: 2	.023-09-11 12:21, Co	ntinued			
/olatile Organic Compounds (VOC), Continue	ed					
1,3-Dichloropropene (cis + trans)	< 1.0	N/A	1.0	μg/L	2023-09-16	
Ethylbenzene	< 1.0	AO ≤ 1.6	1.0	μg/L	2023-09-16	
Methyl tert-butyl ether	< 1.0	AO ≤ 15	1.0	μg/L	2023-09-16	
Styrene	< 1.0	N/A	1.0	µg/L	2023-09-16	
1,1,2,2-Tetrachloroethane	< 0.5	N/A	0.5	µg/L	2023-09-16	
Tetrachloroethylene	< 1.0	MAC = 10	1.0	μg/L	2023-09-16	
Toluene	< 1.0	MAC = 60	1.0	µg/L	2023-09-16	
1,1,1-Trichloroethane	< 1.0	N/A	1.0	µg/L	2023-09-16	
1,1,2-Trichloroethane	< 1.0	N/A	1.0	µg/L	2023-09-16	
Trichloroethylene	< 1.0	MAC = 5	1.0	µg/L	2023-09-16	
Trichlorofluoromethane	< 1.0	N/A	1.0	µg/L	2023-09-16	
Vinyl chloride	< 1.0	MAC = 2	1.0	µg/L	2023-09-16	
Xylenes (total)	< 2.0	AO ≤ 20	2.0	µg/L	2023-09-16	
Surrogate: Toluene-d8	89		70-130	%	2023-09-16	
Surrogate: 4-Bromofluorobenzene	73		70-130	%	2023-09-16	
Surrogate: 1,4-Dichlorobenzene-d4	74		70-130	%	2023-09-16	
	npled: 2023-09-1	1 10:30				
nions			0.10	ma/l	2023-09-14	
A <i>nions</i> Chloride	95.5	AO ≤ 250		mg/L	2023-09-14	
A <b>nions</b> Chloride Fluoride	<b>95.5</b> < 0.10	AO ≤ 250 MAC = 1.5	0.10	mg/L	2023-09-14	
Fluoride Nitrate (as N)	95.5 < 0.10 0.219	AO ≤ 250 MAC = 1.5 MAC = 10	0.10 0.010	mg/L mg/L	2023-09-14 2023-09-14	
Chloride Fluoride Nitrate (as N) Nitrite (as N)	95.5 < 0.10 0.219 < 0.010	AO ≤ 250 MAC = 1.5 MAC = 10 MAC = 1	0.10 0.010 0.010	mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14	
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate	95.5 < 0.10 0.219	AO ≤ 250 MAC = 1.5 MAC = 10	0.10 0.010 0.010	mg/L mg/L	2023-09-14 2023-09-14	
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate	95.5 < 0.10 0.219 < 0.010	AO ≤ 250 MAC = 1.5 MAC = 10 MAC = 1 AO ≤ 500	0.10 0.010 0.010 1.0	mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14	
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters	95.5 < 0.10 0.219 < 0.010 99.4	AO ≤ 250 MAC = 1.5 MAC = 10 MAC = 1	0.10 0.010 0.010	mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3)	95.5 < 0.10 0.219 < 0.010 99.4	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  None Required	0.10 0.010 0.010 1.0 0.500 -5.0	mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 N/A	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved	95.5 < 0.10 0.219 < 0.010 99.4 612 0.9	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  None Required  N/A	0.10 0.010 0.010 1.0 0.500 -5.0	mg/L mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 N/A 2023-09-18	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved General Parameters	95.5 < 0.10 0.219 < 0.010 99.4 612 0.9	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  None Required  N/A	0.10 0.010 0.010 1.0 0.500 -5.0 25.0	mg/L mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 N/A 2023-09-18	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved General Parameters	95.5 < 0.10 0.219 < 0.010 99.4 612 0.9 871	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  None Required  N/A  AO ≤ 500	0.10 0.010 0.010 1.0 0.500 -5.0 25.0	mg/L mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 N/A 2023-09-18 N/A	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved Ceneral Parameters Alkalinity, Total (as CaCO3)	95.5 < 0.10 0.219 < 0.010 99.4 612 0.9 871	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  None Required  N/A  AO ≤ 500	0.10 0.010 0.010 1.0 0.500 -5.0 25.0	mg/L mg/L mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 N/A 2023-09-18 N/A	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved Ceneral Parameters Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3)	95.5 < 0.10 0.219 < 0.010 99.4 612 0.9 871	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  None Required  N/A  AO ≤ 500  N/A  N/A	0.10 0.010 0.010 1.0 0.500 -5.0 25.0	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 N/A 2023-09-18 N/A 2023-09-14 2023-09-14	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved Ceneral Parameters Alkalinity, Total (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3)	95.5 < 0.10 0.219 < 0.010 99.4 612 0.9 871 614 < 1.0 614	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  None Required  N/A  AO ≤ 500  N/A  N/A  N/A  N/A	0.10 0.010 0.010 1.0 0.500 -5.0 25.0 1.0 1.0	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 N/A 2023-09-18 N/A 2023-09-14 2023-09-14 2023-09-14	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved Ceneral Parameters Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3)	95.5 < 0.10 0.219 < 0.010 99.4 612 0.9 871 614 < 1.0 614 < 1.0	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  None Required  N/A  AO ≤ 500  N/A  N/A  N/A  N/A  N/A	0.10 0.010 0.010 1.0 0.500 -5.0 25.0 1.0 1.0	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 2023-09-18 N/A 2023-09-14 2023-09-14 2023-09-14 2023-09-14	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved Ceneral Parameters Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3) Alkalinity, Hydroxide (as CaCO3)	95.5 < 0.10 0.219 < 0.010 99.4 612 0.9 871 614 < 1.0 614 < 1.0 < 1.0	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  None Required  N/A  AO ≤ 500  N/A  N/A  N/A  N/A  N/A  N/A  N/A	0.10 0.010 0.010 1.0 0.500 -5.0 25.0 1.0 1.0 1.0 1.0 0.050	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 2023-09-18 N/A 2023-09-14 2023-09-14 2023-09-14 2023-09-14 2023-09-14	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved Ceneral Parameters Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Ammonia, Total (as N)	95.5 < 0.10 0.219 < 0.010 99.4 612 0.9 871 614 < 1.0 614 < 1.0 < 1.0 < 0.050	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  None Required  N/A  AO ≤ 500  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N	0.10 0.010 0.010 1.0 0.500 -5.0 25.0 1.0 1.0 1.0 1.0 0.050 0.550	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 2023-09-18 N/A 2023-09-14 2023-09-14 2023-09-14 2023-09-14 2023-09-14 2023-09-14 2023-09-14	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved Ceneral Parameters Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Alkalinity, Total (as N) Carbon, Total Organic Colour, True	95.5 < 0.10 0.219 < 0.010 99.4 612 0.9 871 614 < 1.0 614 < 1.0 < 1.0 < 0.050 2.55	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  None Required  N/A  AO ≤ 500  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N	0.10 0.010 0.010 1.0 0.500 -5.0 25.0 1.0 1.0 1.0 1.0 0.050 0.500 5.0	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 2023-09-18 N/A 2023-09-14 2023-09-14 2023-09-14 2023-09-14 2023-09-14 2023-09-14 2023-09-14 2023-09-14	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved Ceneral Parameters Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3) Alkalinity, Bicarbonate (as CaCO3) Alkalinity, Carbonate (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Alkalinity, Hydroxide (as CaCO3) Ammonia, Total (as N) Carbon, Total Organic	95.5 < 0.10 0.219 < 0.010 99.4  612 0.9 871  614 < 1.0 614 < 1.0 < 1.0 < 0.050 2.55 < 5.0	AO ≤ 250  MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  None Required  N/A  AO ≤ 500  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N	0.10 0.010 0.010 1.0 0.500 -5.0 25.0 1.0 1.0 1.0 1.0 0.050 0.500 5.0	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 2023-09-18 N/A 2023-09-14 2023-09-14 2023-09-14 2023-09-14 2023-09-14 2023-09-19 2023-09-19	CT6



REPORTED TO PROJECT

100 Mile House, District of Drinking Water - Chemistry

WORK ORDER REPORTED

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
PRV Stn (23l1467-02)   Matrix: Water   S	ampled: 2023-09-1	1 10:30, Continued				
General Parameters, Continued						
Phosphorus, Total (as P)	0.0446	N/A	0.0050	mg/L	2023-09-14	
Temperature, at pH	22.1	N/A		°C	2023-09-14	HT2
Turbidity	0.34	OG < 1	0.10	NTU	2023-09-14	
otal Metals						
Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2023-09-16	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-09-16	
Arsenic, total	0.00148	MAC = 0.01	0.00050	mg/L	2023-09-16	
Barium, total	0.0119	MAC = 2	0.0050	mg/L	2023-09-16	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-09-16	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010	mg/L	2023-09-16	
	65.8	None Required	0.20	mg/L	2023-09-16	
Calcium, total  Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-09-16	
	< 0.00010	N/A	0.00010	mg/L	2023-09-16	
Cobalt, total	0.0285	MAC = 2	0.00040	mg/L	2023-09-16	
Copper, total	0.041	AO ≤ 0.3	0.010	mg/L	2023-09-16	
Iron, total	0.00043	MAC = 0.005	0.00020	mg/L	2023-09-16	
Lead, total  Magnesium, total	109	None Required	0.010	mg/L	2023-09-16	
	0.00475	MAC = 0.12	0.00020	mg/L	2023-09-16	
Manganese, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2023-09-18	
Mercury, total	0.00814	N/A	0.00010	mg/L	2023-09-16	
Molybdenum, total	0.00096	N/A	0.00040	mg/L	2023-09-16	
Nickel, total	7.53	N/A	0.10	mg/L	2023-09-16	
Potassium, total	0.00710	MAC = 0.05	0.00050		2023-09-16	
Selenium, total	118	AO ≤ 200		mg/L	2023-09-16	
Sodium, total	0.192	MAC = 7	0.0010		2023-09-16	
Strontium, total	0.00752	MAC = 0.02	0.000020		2023-09-16	
Uranium, total	0.0154	AO ≤ 5	0.0040		2023-09-16	
Zinc, total	0.0134	7.0 - 0				
/olatile Organic Compounds (VOC)  Benzene	< 0.5	MAC = 5	0.5	μg/L	2023-09-16	
Bromodichloromethane	18.8	N/A	1.0	μg/L	2023-09-16	
Bromoform	5.0	N/A		μg/L	2023-09-16	
Carbon tetrachloride	< 0.5	MAC = 2		μg/L	2023-09-16	
Chlorobenzene	< 1.0	AO ≤ 30	1.0		2023-09-16	
Chloroethane	< 2.0	N/A	2.0		2023-09-16	1571122
Chloroform	13.0	N/A	1.0	μg/L	2023-09-16	
Dibromochloromethane	18.7	N/A		µg/L	2023-09-16	
1,2-Dibromoethane	< 0.3	N/A		μg/L	2023-09-16	
Dibromomethane	< 1.0	N/A		μg/L	2023-09-16	
1,2-Dichlorobenzene	< 0.5	AO ≤ 3	the state of the s	μg/L	2023-09-16	
1,3-Dichlorobenzene	< 1.0	N/A	and the second second second	μg/L	2023-09-16	
1,4-Dichlorobenzene	< 1.0	AO ≤ 1	and the second second	μg/L	2023-09-16	
1,1-Dichloroethane	< 1.0	N/A		µg/L	2023-09-16	Page 5



**REPORTED TO** 100 Mile House, District of **PROJECT** Drinking Water - Chemistry

WORK ORDER REPORTED

Analyte	Result	Guideline	RL	Units	Analyzed	Qualific
PRV Stn (23I1467-02)   Matrix: Water   San	mpled: 2023-09-1	1 10:30, Continued				
olatile Organic Compounds (VOC), Continue	ed					
1,2-Dichloroethane	< 1.0	MAC = 5	1.0	µg/L	2023-09-16	
1,1-Dichloroethylene	< 1.0	MAC = 14	1.0	μg/L	2023-09-16	
cis-1,2-Dichloroethylene	< 1.0	N/A	1.0	μg/L	2023-09-16	
trans-1,2-Dichloroethylene	< 1.0	N/A	1.0	μg/L	2023-09-16	
Dichloromethane	< 3.0	MAC = 50	3.0	μg/L	2023-09-16	
1,2-Dichloropropane	< 1.0	N/A	1.0	μg/L	2023-09-16	
1,3-Dichloropropene (cis + trans)	< 1.0	N/A	1.0	μg/L	2023-09-16	
Ethylbenzene	< 1.0	AO ≤ 1.6	1.0	μg/L	2023-09-16	
Methyl tert-butyl ether	< 1.0	AO ≤ 15	1.0	μg/L	2023-09-16	
Styrene	< 1.0	N/A	1.0	μg/L	2023-09-16	
1,1,2,2-Tetrachloroethane	< 0.5	N/A	0.5	μg/L	2023-09-16	
Tetrachloroethylene	< 1.0	MAC = 10	1.0	μg/L	2023-09-16	
Toluene	< 1.0	MAC = 60	1.0	μg/L	2023-09-16	
1,1,1-Trichloroethane	< 1.0	N/A	1.0	μg/L	2023-09-16	
1,1,2-Trichloroethane	< 1.0	N/A	1.0	μg/L	2023-09-16	
Trichloroethylene	< 1.0	MAC = 5	1.0	μg/L	2023-09-16	
Trichlorofluoromethane	< 1.0	N/A	1.0	μg/L	2023-09-16	
Vinyl chloride	< 1.0	MAC = 2	1.0	μg/L	2023-09-16	
Xylenes (total)	< 2.0	AO ≤ 20	2.0	μg/L	2023-09-16	
Surrogate: Toluene-d8	81		70-130	%	2023-09-16	
Surrogate: 4-Bromofluorobenzene	72		70-130	%	2023-09-16	
Surrogate: 1,4-Dichlorobenzene-d4	62		70-130	%	2023-09-16	S02
Moore Sample Station (23I1467-03)   Matr	ix: Water   Samp	ed: 2023-09-11 12:0	5			
Anions						
Anions Chloride	93.9	AO ≤ 250	0.10	mg/L	2023-09-14	
	93.9 0.11	AO ≤ 250 MAC = 1.5	0.10	mg/L mg/L	2023-09-14 2023-09-14	SHIFT
Chloride			0.10	mg/L		
Chloride Fluoride	0.11	MAC = 1.5	0.10 0.10	mg/L mg/L	2023-09-14	
Chloride Fluoride Nitrate (as N)	0.11 0.221	MAC = 1.5 MAC = 10	0.10 0.10 0.010 0.010	mg/L mg/L	2023-09-14 2023-09-14	
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate	0.11 0.221 < 0.010	MAC = 1.5 MAC = 10 MAC = 1	0.10 0.10 0.010 0.010	mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14	
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate	0.11 0.221 < 0.010	MAC = 1.5 MAC = 10 MAC = 1	0.10 0.10 0.010 0.010	mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14	
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters	0.11 0.221 < 0.010 97.9	MAC = 1.5 MAC = 10 MAC = 1 AO ≤ 500	0.10 0.10 0.010 0.010 1.0	mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3)	0.11 0.221 < 0.010 97.9	MAC = 1.5 MAC = 10 MAC = 1 AO ≤ 500 None Required	0.10 0.10 0.010 0.010 1.0 0.500	mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 N/A	CT6
Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index	0.11 0.221 < 0.010 97.9 605 0.9	MAC = 1.5 MAC = 10 MAC = 1 AO ≤ 500 None Required N/A	0.10 0.10 0.010 0.010 1.0 0.500	mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 N/A 2023-09-18	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved	0.11 0.221 < 0.010 97.9 605 0.9	MAC = 1.5 MAC = 10 MAC = 1 AO ≤ 500 None Required N/A	0.10 0.10 0.010 0.010 1.0 0.500 -5.0 25.0	mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 N/A 2023-09-18	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved General Parameters Alkalinity, Total (as CaCO3)	0.11 0.221 < 0.010 97.9 605 0.9 867	MAC = 1.5 MAC = 10 MAC = 1 AO ≤ 500 None Required N/A AO ≤ 500	0.10 0.010 0.010 1.0 0.500 -5.0 25.0	mg/L mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 N/A 2023-09-18 N/A	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved General Parameters Alkalinity, Total (as CaCO3) Alkalinity, Phenolphthalein (as CaCO3)	0.11 0.221 < 0.010 97.9 605 0.9 867	MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  None Required  N/A  AO ≤ 500	0.10 0.010 0.010 1.0 0.500 -5.0 25.0	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 N/A 2023-09-18 N/A	CT6
Chloride Fluoride Nitrate (as N) Nitrite (as N) Sulfate Calculated Parameters Hardness, Total (as CaCO3) Langelier Index Solids, Total Dissolved General Parameters Alkalinity, Total (as CaCO3)	0.11 0.221 < 0.010 97.9 605 0.9 867	MAC = 1.5  MAC = 10  MAC = 1  AO ≤ 500  None Required  N/A  AO ≤ 500  N/A  N/A	0.10 0.10 0.010 0.010 1.0 0.500 -5.0 25.0	mg/L mg/L mg/L mg/L mg/L mg/L	2023-09-14 2023-09-14 2023-09-14 2023-09-14 N/A 2023-09-18 N/A 2023-09-14 2023-09-14	CT6



REPORTED TO PROJECT

100 Mile House, District of Drinking Water - Chemistry WORK ORDER REPORTED

PROJECT Drinking water - Cite	irrioti y				14	
Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
Moore Sample Station (23l1467-03)   Ma	atrix: Water   Samp	led: 2023-09-11 12:0	5, Continue	d		
General Parameters, Continued						
Ammonia, Total (as N)	< 0.050	None Required	0.050	mg/L	2023-09-14	
Carbon, Total Organic	2.74	N/A	0.50	mg/L	2023-09-19	
Colour, True	< 5.0	AO ≤ 15		CU	2023-09-14	
Conductivity (EC)	1500	N/A	2.0	μS/cm	2023-09-14	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2023-09-15	
pH	7.95	7.0-10.5	0.10	pH units	2023-09-14	HT2
Phosphorus, Total (as P)	0.0414	N/A	0.0050	mg/L	2023-09-14	
Temperature, at pH	22.2	N/A		°C	2023-09-14	HT2
Turbidity	0.49	OG < 1	0.10	NTU	2023-09-14	
Total Metals						
Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2023-09-16	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-09-16	
Arsenic, total	0.00149	MAC = 0.01	0.00050	mg/L	2023-09-16	
Barium, total	0.0123	MAC = 2	0.0050	mg/L	2023-09-16	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-09-16	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010	mg/L	2023-09-16	
Calcium, total	66.4	None Required	0.20	mg/L	2023-09-16	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-09-16	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2023-09-16	
Copper, total	0.135	MAC = 2	0.00040	mg/L	2023-09-16	
Iron, total	0.042	AO ≤ 0.3	0.010	mg/L	2023-09-16	
Lead, total	0.00319	MAC = 0.005	0.00020	mg/L	2023-09-16	
Magnesium, total	107	None Required	0.010	mg/L	2023-09-16	
	0.0351	MAC = 0.12	0.00020	mg/L	2023-09-16	
Manganese, total  Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2023-09-18	
Molybdenum, total	0.00627	N/A	0.00010	mg/L	2023-09-16	
Nickel, total	0.00222	N/A	0.00040	mg/L	2023-09-16	
Potassium, total	7.46	N/A	0.10	mg/L	2023-09-16	
Selenium, total	0.00712	MAC = 0.05	0.00050	mg/L	2023-09-16	3,710-00-00
	118	AO ≤ 200	0.10	mg/L	2023-09-16	
Sodium, total Strontium, total	0.191	MAC = 7	0.0010		2023-09-16	
Uranium, total	0.00770	MAC = 0.02	0.000020		2023-09-16	
Zinc, total	0.0334	AO ≤ 5	0.0040		2023-09-16	
Volatile Organic Compounds (VOC)	< 0.5	MAC = 5	0.5	μg/L	2023-09-16	
Benzene		N/A	CONTRACTOR OF STREET	μg/L	2023-09-16	
Bromodichloromethane	30.3	N/A		µg/L	2023-09-16	
Bromoform	<b>5.8</b> < 0.5	MAC = 2		µg/L	2023-09-16	
Carbon tetrachloride		AO ≤ 30		µg/L	2023-09-16	
Chlorobenzene	< 1.0 < 2.0	AO ≦ 30 N/A		μg/L	2023-09-16	
Chloroethane	28.6	N/A		µg/L	2023-09-16	
Chloroform				μg/L	2023-09-16	
Dibromochloromethane	24.0	N/A	1.0	µg/L	2023-09-18	Page



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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
Moore Sample Station (23I1467-03)   Ma	trix: Water   Samp	led: 2023-09-11 12:0	5, Continue	d		
folatile Organic Compounds (VOC), Continu	ued					
1,2-Dibromoethane	< 0.3	N/A	0.3	μg/L	2023-09-16	
Dibromomethane	< 1.0	N/A	1.0	μg/L	2023-09-16	
1,2-Dichlorobenzene	< 0.5	AO ≤ 3	0.5	μg/L	2023-09-16	
1,3-Dichlorobenzene	< 1.0	N/A	1.0	μg/L	2023-09-16	
1,4-Dichlorobenzene	< 1.0	AO ≤ 1	1.0	μg/L	2023-09-16	
1,1-Dichloroethane	< 1.0	N/A	1.0	μg/L	2023-09-16	
1,2-Dichloroethane	< 1.0	MAC = 5	1.0	μg/L	2023-09-16	
1,1-Dichloroethylene	< 1.0	MAC = 14	1.0	μg/L	2023-09-16	
cis-1,2-Dichloroethylene	< 1.0	N/A	1.0	μg/L	2023-09-16	
trans-1,2-Dichloroethylene	< 1.0	N/A	1.0	μg/L	2023-09-16	
Dichloromethane	< 3.0	MAC = 50	3.0	μg/L	2023-09-16	
1,2-Dichloropropane	< 1.0	N/A	1.0	μg/L	2023-09-16	
1,3-Dichloropropene (cis + trans)	< 1.0	N/A	1.0	μg/L	2023-09-16	
Ethylbenzene	< 1.0	AO ≤ 1.6	1.0	μg/L	2023-09-16	
Methyl tert-butyl ether	< 1.0	AO ≤ 15	1.0	μg/L	2023-09-16	
Styrene	< 1.0	N/A	1.0	μg/L	2023-09-16	
1,1,2,2-Tetrachloroethane	< 0.5	N/A	0.5	μg/L	2023-09-16	
Tetrachloroethylene	< 1.0	MAC = 10	1.0	μg/L	2023-09-16	
Toluene	< 1.0	MAC = 60	1.0	μg/L	2023-09-16	
1,1,1-Trichloroethane	< 1.0	N/A	1.0	μg/L	2023-09-16	
1,1,2-Trichloroethane	< 1.0	N/A	and the second second second	µg/L	2023-09-16	
Trichloroethylene	< 1.0	MAC = 5	1.0	μg/L	2023-09-16	
Trichlorofluoromethane	< 1.0	N/A	1.0	μg/L	2023-09-16	
Vinyl chloride	< 1.0	MAC = 2	1.0	µg/L	2023-09-16	
Xylenes (total)	< 2.0	AO ≤ 20	2.0	μg/L	2023-09-16	
Surrogate: Toluene-d8	83		70-130	%	2023-09-16	
Surrogate: 4-Bromofluorobenzene	73		70-130	%	2023-09-16	
Surrogate: 1,4-Dichlorobenzene-d4	69		70-130	%	2023-09-16	S02
Sandhill Sample Station (23I1467-04)   N	/latrix: Water   Sam	pled: 2023-09-11 11:	14			
nions						
Chloride	94.1	AO ≤ 250	0.10	mg/L	2023-09-14	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2023-09-15	
Nitrate (as N)	0.235	MAC = 10	0.010	mg/L	2023-09-15	HT1
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2023-09-15	HT1
Sulfate	98.0	AO ≤ 500	1.0	mg/L	2023-09-14	
Calculated Parameters						
Hardness, Total (as CaCO3)	619	None Required	0.500	mg/L	N/A	
Langelier Index	0.9	N/A	-5.0		2023-09-18	CT6
Solids, Total Dissolved	891	AO ≤ 500	25.0	mg/L	N/A	



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			DI II-ita	Analyzad	Qualifier
Analyta	Result	Guideline	RL Units	Analyzed	Qualifici

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie ———
Sandhill Sample Station (23I1467-04)   I	Matrix: Water   Sam	pled: 2023-09-11 11	:14, Continu	ied		
General Parameters						
Alkalinity, Total (as CaCO3)	643	N/A	1.0	mg/L	2023-09-14	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0	mg/L	2023-09-14	
Alkalinity, Bicarbonate (as CaCO3)	643	N/A	1.0	mg/L	2023-09-14	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0	mg/L	2023-09-14	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0	mg/L	2023-09-14	
Ammonia, Total (as N)	< 0.050	None Required	0.050	mg/L	2023-09-14	
Carbon, Total Organic	3.33	N/A	0.50	mg/L	2023-09-19	
Colour, True	< 5.0	AO ≤ 15	5.0	CU	2023-09-14	
Conductivity (EC)	1500	N/A	2.0	μS/cm	2023-09-14	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2023-09-15	
pH	7.93	7.0-10.5	0.10	pH units	2023-09-14	HT2
Phosphorus, Total (as P)	0.0425	N/A	0.0050	mg/L	2023-09-14	
Temperature, at pH	22.3	N/A		°C	2023-09-14	HT2
Turbidity	0.25	OG < 1	0.10	NTU	2023-09-14	
otal Metals	< 0.0050	OG < 0.1	0.0050	ma/l	2023-09-16	
Aluminum, total	< 0.0030	MAC = 0.006	0.00020		2023-09-16	
Antimony, total		MAC = 0.000	0.00050		2023-09-16	
Arsenic, total	0.00156	MAC = 0.01	0.0050		2023-09-16	
Barium, total	<b>0.0109</b> < 0.0500	MAC = 5	0.0500		2023-09-16	
Boron, total		MAC = 0.007	0.000010		2023-09-16	
Cadmium, total	< 0.000010	None Required		mg/L	2023-09-16	
Calcium, total	<b>66.5</b> < 0.00050	MAC = 0.05	0.00050		2023-09-16	
Chromium, total		N/A	0.00010		2023-09-16	
Cobalt, total	< 0.00010	MAC = 2	0.00010		2023-09-16	
Copper, total	0.0289	AO ≤ 0.3		mg/L	2023-09-16	
Iron, total	< 0.010	MAC = 0.005	0.00020		2023-09-16	
Lead, total	< 0.00020	None Required		mg/L	2023-09-16	
Magnesium, total	110	MAC = 0.12	0.00020		2023-09-16	
Manganese, total	0.00167	MAC = 0.001	0.000010		2023-09-18	
Mercury, total	< 0.000010	N/A	0.00010		2023-09-16	
Molybdenum, total	0.00820	N/A	0.00040		2023-09-16	
Nickel, total	0.00170	N/A		mg/L	2023-09-16	
Potassium, total	7.68 0.00705	MAC = 0.05	0.00050		2023-09-16	
Selenium, total		AO ≤ 200		mg/L	2023-09-16	
Sodium, total	122	MAC = 7		mg/L	2023-09-16	
Strontium, total	0.195	MAC = 0.02	0.000020		2023-09-16	
Uranium, total	0.00764 0.0051	AO ≤ 5		mg/L	2023-09-16	
Zinc, total	1,000.0	A033	0.0040			1011
Volatile Organic Compounds (VOC)				"	2022 00 40	
Benzene	< 0.5	MAC = 5		µg/L	2023-09-16	
Bromodichloromethane	9.2	N/A	and the second second	µg/L	2023-09-16	
Bromoform	4.6	N/A	1.0	μg/L	2023-09-16	Page 9



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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
Sandhill Sample Station (23I1467-04)   N	latrix: Water   Samı	oled: 2023-09-11 11	:14, Continu	ıed		
olatile Organic Compounds (VOC), Continu	ued					
Carbon tetrachloride	< 0.5	MAC = 2	0.5	µg/L	2023-09-16	
Chlorobenzene	< 1.0	AO ≤ 30	1.0	μg/L	2023-09-16	
Chloroethane	< 2.0	N/A	2.0	μg/L	2023-09-16	
Chloroform	3.7	N/A	1.0	µg/L	2023-09-16	
Dibromochloromethane	10.3	N/A	1.0	μg/L	2023-09-16	
1,2-Dibromoethane	< 0.3	N/A	0.3	μg/L	2023-09-16	
Dibromomethane	< 1.0	N/A	1.0	μg/L	2023-09-16	
1,2-Dichlorobenzene	< 0.5	AO ≤ 3	0.5	µg/L	2023-09-16	
1,3-Dichlorobenzene	< 1.0	N/A	1.0	μg/L	2023-09-16	
1,4-Dichlorobenzene	< 1.0	AO ≤ 1	1.0	μg/L	2023-09-16	
1,1-Dichloroethane	< 1.0	N/A	1.0	μg/L	2023-09-16	
1,2-Dichloroethane	< 1.0	MAC = 5	1.0	μg/L	2023-09-16	
1,1-Dichloroethylene	< 1.0	MAC = 14	1.0	μg/L	2023-09-16	
cis-1,2-Dichloroethylene	< 1.0	N/A	1.0	μg/L	2023-09-16	
trans-1,2-Dichloroethylene	< 1.0	N/A	1.0	μg/L	2023-09-16	
Dichloromethane	< 3.0	MAC = 50	3.0	µg/L	2023-09-16	
1,2-Dichloropropane	< 1.0	N/A	1.0	µg/L	2023-09-16	
1,3-Dichloropropene (cis + trans)	< 1.0	N/A	1.0	μg/L	2023-09-16	
Ethylbenzene	< 1.0	AO ≤ 1.6	1.0	µg/L	2023-09-16	
Methyl tert-butyl ether	< 1.0	AO ≤ 15	1.0	μg/L	2023-09-16	
Styrene	< 1.0	N/A	1.0	µg/L	2023-09-16	
1,1,2,2-Tetrachloroethane	< 0.5	N/A	0.5	μg/L	2023-09-16	
Tetrachioroethylene	< 1.0	MAC = 10	1.0	μg/L	2023-09-16	
Toluene	< 1.0	MAC = 60	1.0	μg/L	2023-09-16	
1,1,1-Trichloroethane	< 1.0	N/A	1.0	μg/L	2023-09-16	
1,1,2-Trichloroethane	< 1.0	N/A	1.0	μg/L	2023-09-16	
Trichloroethylene	< 1.0	MAC = 5	1.0	μg/L	2023-09-16	
Trichlorofluoromethane	< 1.0	N/A	1.0	μg/L	2023-09-16	
Vinyl chloride	< 1.0	MAC = 2	1.0	μg/L	2023-09-16	
Xylenes (total)	< 2.0	AO ≤ 20	2.0	µg/L	2023-09-16	
Surrogate: Toluene-d8	17		70-130	%	2023-09-16	S02
Surrogate: 4-Bromofluorobenzene	74		70-130	%	2023-09-16	
Surrogate: 1,4-Dichlorobenzene-d4	74		70-130	%	2023-09-16	

#### Sample Qualifiers:

CT6 Results were based on lab temperature & lab pH.

HT1 The sample was prepared and/or analyzed past the recommended holding time.

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

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



# APPENDIX 1: SUPPORTING INFORMATION

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100 Mile House, District of Drinking Water - Chemistry **WORK ORDER REPORTED** 

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Analysis Description	Method Ref.	Technique	Accredited	<b>Location</b> Kelowna
Alkalinity in Water	SM 2320 B* (2021)	Titration with H2SO4	✓	
Ammonia, Total in Water	SM 4500-NH3 G* (2021)	Automated Colorimetry (Phenate)	✓	Kelowna
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Carbon, Total Organic in Water	SM 5310 B (2022)	Combustion, Infrared CO2 Detection	✓	Kelowna
Colour, True in Water	SM 2120 C (2021)	Spectrophotometry (456 nm)	✓	Kelowna
Conductivity in Water	SM 2510 B (2021)	Conductivity Meter	<b>✓</b>	Kelowna
Cyanide, SAD in Water	ASTM D7511-12	Flow Injection with In-Line UV Digestion and Amperometry	<b>✓</b>	Kelowna
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	<b>✓</b>	Richmond
Hardness in Water	SM 2340 B* (2021)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
Langelier Index in Water	SM 2330 B (2021)	Calculation		N/A
Mercury, total in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	<b>✓</b>	Richmond
pH in Water	SM 4500-H+ B (2021)	Electrometry	✓	Kelowna
Phosphorus, Total in Water	SM 4500-P B.5* (2011) / SM 4500-P F (2021)	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	1	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
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	~	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	· ·	Kelowna
Volatile Organic Compounds in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond

#### 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 <

°C Degrees Celcius Aesthetic Objective AO

Colour Units (referenced against a platinum cobalt standard) CU

Maximum Acceptable Concentration (health based) MAC

Milligrams per litre mg/L

Nephelometric Turbidity Units NTU

Operational Guideline (treated water) OG

pH < 7 = acidic, ph > 7 = basicpH units

Micrograms per litre µg/L

Microsiemens per centimetre µS/cm ASTM International Test Methods **ASTM** 

United States Environmental Protection Agency Test Methods **EPA** 

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



### APPENDIX 1: SUPPORTING INFORMATION

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100 Mile House, District of Drinking Water - Chemistry

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#### **General Comments:**

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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 <u>not</u> 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:bwhitehead@caro.ca

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